


MEMORANDUM

TO: President Edward T. Foote II

FROM: Kamal Yacoub 
Chair, Faculty Senate

DATE: May 17, 1994

SUBJECT: Faculty Senate Legislation #93007(B) -
Establishment of the Ph.D. Degree in Physical Therapy

The Faculty Senate, at its meeting of April 25, 1994, voted to approve Faculty Senate Legislation #93007(B) - Establishment of the Ph.D. Degree in Physical Therapy.

As with all new Ph.D. programs, the Senate requires that the Program Director submit a progress report to the Senate, through the Graduate Council, in three years. Particular focus on the status of students in the program and the progress of the faculty towards tenure should be noted in the report.

This legislation is now forwarded to you for your action.

KY/b

Attachment

cc: Provost Luis Glaser
Associate Dean Hecker, Graduate School
Dean Bernard Fogel, School of Medicine
Dr. Sherrill Hayes, Director of the Program

CAPSULE: Faculty Senate Legislation #93007(B) -
Establishment of the Ph.D. Degree in Physical Therapy

RESPONSE BY THE PRESIDENT:

DATE: 2/12/84

APPROVED: Yes 372

OFFICE OR INDIVIDUAL TO IMPLEMENT OR PUBLISH: Personnel

EFFECTIVE DATE OF LEGISLATION: _____

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

CERTIFIED EXTRACT OF MINUTES

I, the undersigned, Secretary of the **UNIVERSITY OF MIAMI**, a non-profit corporation duly organized and existing under the laws of the State of Florida, hereby **CERTIFY** that the following is a true and correct copy of a certain resolution passed by the Executive Committee of the Board of Trustees of the said corporation, in accordance with the Bylaws at and recorded in the minutes of a meeting of the said Executive Committee duly held on October 18, 1994, and not subsequently rescinded or modified:

ACTION: Upon a motion duly made, seconded and passed unanimously, the Executive Committee of the University of Miami Board of Trustees approved the establishment of a Ph.D. Degree in Epidemiology, Department of Epidemiology, School of Medicine.

ACTION: Upon a motion duly made, seconded, and passed unanimously, the Executive Committee of the University of Miami Board of Trustees approved the establishment of a Ph.D. Degree in Physical Therapy, Division of Physical Therapy, School of Medicine.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the said corporation this 9th day of November, 1994, at Coral Gables, Dade County, Florida.



Lourdes F. La Paz
Secretary of the University

(Corporate Seal)



Ph.D. in Physical Therapy (second reading)

Professor Robert Warren, Chair of the Senate Review Committee, explained the additional material prepared by Professor Hayes in response to questions about the research being carried out by the faculty. It was *moved* and seconded to approve the Ph.D. in Physical Therapy program contingent on the action of the Graduate Faculty as outlined in Professor Khalil's letter to Professor Yacoub. The program shall provide a progress report to the Senate in three years. The *motion carried*. It was suggested that, in the future when new programs are being reviewed, the Library Senators should be given the information on library holdings during the review process.

Academic Standards Committee Report

Professor Carrier began his presentation of Bulletin changes with the unanimous recommendation of the Academic Standards Committee to require transfer students to submit SAT scores and high school diplomas, as well as college transcripts if they have less than thirty semester hours of college work. A friendly amendment was offered to change the language of paragraph 3 of the "Admissions Procedures for Transfers" section. The new language follows: "Transfer applicants with less than thirty semester hours earned are required to send an official high school transcript and SAT or ACT scores, as well as official transcripts from each college or university attended." The last paragraph would read: "Transfer applicants who have earned thirty semester hours or more are required to send official transcripts from each college or university attended." It was *moved* and seconded to approve the recommendation as amended. The *motion carried*.

Professor Carrier summarized the rationale of each of the remaining proposed changes and announced that the "IP" grade designation on page 29 of the Bulletin had been eliminated. Under the heading "By Objective" on page 32, the Committee recommended the deletion of the last sentence of paragraph 1. The Committee recommended inserting "by the instructor" following "dropped from the course" in sentence 3, paragraph 1 on page 34. Deletion was recommended by the Committee for the paragraph titled "Procedures", page 35. It was *moved* and seconded to approve the foregoing changes. The *motion carried*.

Before the Provost left the meeting, he wished the Senate a pleasant summer and expressed his pleasure at working with the Senate during the past year.

Report on the Faculty Senate Retreat

The Chair explained that due to illness, Professor Margaret Crosbie-Burnett, Chair of the Faculty Senate Retreat Committee, had not been able to present to the Senate the

**REPORT TO THE FACULTY SENATE ON A PROPOSAL FOR A PH.D. PROGRAM IN
PHYSICAL THERAPY**

FROM: Faculty Senate Advisory Council
DATE: March 21 (First Reading)
PREPARED BY: Bob Warren, 2nd Vice Chair

This proposal has been reviewed for the Senate by Professor Eugene Roberts (Department of Neurology), Professor Leonard Carrier (1st Vice Chair of the Senate) and myself. We are unanimous in recommending that the Senate approve the proposal.

Physical Therapy is a young division within the Department of Orthopaedics and Rehabilitation at the School of Medicine. As outlined in the included material the Division functions as a relatively independent Department within a Department with the blessing of the Chair of the parent Department. The Division has been quite successful in its endeavors so far, with a thriving Masters program that operates out of space on three floors of the Plumer Building. Recognizing the need for PhDs to fill numerous faculty vacancies in academic institutions around the country they submitted a proposal for a PhD program in 1991/92. The proposal was favorably received by two external reviewers, but because of numerous suggestions in the reviewer's report, the decision was made to revise the proposal before it was submitted to the Graduate Council. The Graduate Council endorsed the Proposal late in 1993. The reports of the external reviewers and the Graduate Council are attached. Professor Sherrill Hayes (Program Director) has prepared a summary of the Proposal along with responses to the suggestions that were made by the reviewers and the Council. A letter of support for the Program from Dr. Mark Brown, Chairman of Orthopaedics and Rehabilitation, completes the packet of material submitted to the Senate.

The need for a PhD program in Physical Therapy appears to be well justified, and the University of Miami should take the opportunity to meet this need. The Division of Physical Therapy does not yet have the years of experience that one would typically expect as the background for a PhD program, but we believe, along with the other reviewers, that their potential has been demonstrated with the success of the Master's program and the extent of the facilities and funding that they now have. The faculty appear to be making good progress towards tenure. Their relations with their parent department are excellent, and, although it might be appropriate to consider the issue of separate departmental status in the future, we do not believe that their lack of departmental status should be a hindrance in initiating the PhD program.

**Faculty Senate Legislation #93004(B) -
Repeal of Faculty Senate Legislation #87028(B)**

The Chair reviewed the supporting documentation of the proposed legislation to disestablish the Guidance Center as an academic unit. It was *moved* and seconded to approve the proposal. The *motion carried*.

Proposal for a Ph.D. program in Physical Therapy (first reading)

Professor Warren presented the proposal for its first reading and distributed a caveat to the recommendation of the review committee. The Director of the Program, Dr. Sherrill Hayes, responded to questions from the Senate relating to the possibility of a deficit in the department budget which might impact on the general University budget, possible coordination between the program and the School of Nursing. Dr. Hayes also answered questions about the program faculty, curriculum, the stipends to be offered students, and the nature of the scholarly field of endeavor. She stated that there are only ten existing Ph.D. programs in the country. However, faculty in the proposed Ph.D. program have their degrees mostly in the basic sciences, epidemiology, neuroscience, neuropsychology and higher education administration. Following discussion, it was suggested that, at a subsequent time, the issue of graduate stipends should be examined.

Proposal for a Ph. D. program in Epidemiology (first reading)

Professor Warren introduced Professor Trapido, Director of the Program, Professor Donohue and Professor Prineas, Chair of the Department of Epidemiology to answer questions from the Senate. He then presented a summary of the proposed program. Professor Green suggested that the Departments of Mathematics and Biology be contacted, prior to the next reading, with regard to including a biostatistics or mathematical statistics course in the curriculum. He said that this concern was expressed by the outside reviewers and the Graduate Council. The issue of space fragmentation was addressed by Professor Prineas who said that the class space is adequate although scattered and there are sufficient computer facilities for each graduate student to have a work station. In response to a query about whether this program, or the Public Health program in general, coordinated with the Health Administration in the School of Business Administration, Vice Provost Ullmann said that it is not at this time but does not preclude some affiliation in the future. It was suggested that the doctoral degree existing courses and course number and the proposed courses, along with an abbreviated syllabus, be provided for the next reading of the proposal. Professor Ladner noted that ARPANET is no longer available as a computer network.

November 1, 1993

TO: Jo Anne K. Hecker, Ph.D.
Interim Dean of The Graduate School

FROM: Sherrill Hayes, Ph.D., P.T.
Director, Division of Physical Therapy

RE: Summary of Revisions to the PhD. in Physical Therapy Proposal

Following extensive and meaningful discussion, the faculty of the Division of Physical Therapy has revised this Proposal reflecting the comments of the outside reviewers, internal reviewers (Graduate School), and the core faculty. As with most ambitious undertakings, guided introspection allows one the opportunity to see things more clearly. Based upon the constructive feedback from all concerned, we believe that this revised Proposal reflects a more focused program of study which will bring added recognition to the University of Miami.

General changes are summarized as follows:

- 1) A Table of Contents has been added.
- 2) Statement of Philosophy: expanded (pages 5-6)
- 3) Overall Goals: revised and expanded (page 7)
- 4) Chapter 1 "Rationale and Need for the Program"
 - a) Severe Faculty Shortage: revised and strengthened, including APTA Board of Directors Recommendations on Faculty Shortage, and how this program meets those recommendations (pages 8-11).
 - b) Purpose and Goals of the Degree: revised (pages 12-13)

- c) Demand and Job Market: updated with latest statistics (pages 13-15)
- d) Interdisciplinary and Cooperative Work: more detailed concerning the courses to be team-taught within the Division and those offered outside the Division as electives. Also includes brief descriptions of cooperative works already undertaken (pages 15-17).
- e) Relationship to Undergraduate and Professional Programs: more detailed information concerning how students with Bachelor's, Entry-Level Master's, or Advanced (post-professional) Master's degrees can enter the program. Also now indicates how students with a Bachelor's Degree may obtain a Master's Degree from the Program (pages 17-18).

5) Chapter 2 "Physical Resources"

Considerably more information concerning the facilities present at the University of Miami. These include Library Resources, the Division's Steven J. Rose Research Center for Clinical Research (including its subdivisions, equipment available, and the Directors of each subdivision), and the Computer Facilities available, both in the Division and other locations on campus (pages 19-20).

6) Chapter 3 "Curriculum"

- a) More detailed information concerning proposed scheduling of courses, program overview, identifying core courses, elective courses, and their credits (pages 21-25).
- b) more information concerning "How to Get an MS Degree Out of the PhD Program" (page 26)
- c) revision of distribution of graduate students, including part-time status as an important resource of students (page 26)
- d) more information concerning special seminars, conferences, and colloquia (pages 26-

27).

7) Chapter 4 "Faculty"

Divisional and Core Faculty, with their research interests added (pages 28-30).

8) Chapters 5 & 6, "Students" and "Administration"

Revised considerably. Includes information on full-time and part-time students (pages 31-35).

9) Chapter 7, "Comparison to Other Existing Programs"

More detailed description of how this program compares credit-wise to other Physical Therapy PhD Programs in the United States (pages 36-38).

10) Chapter 8, "Budget"

Totally revised, reflecting projected distribution of part-time and full-time students. Also includes justification for EMG machine (pages 39-42).

11) Appendix I, "Publication of Divisional Faculty from January 1, 1993 to September 30, 1993"

Not included originally (pages 44-45).

12) Appendix III, "Course Description"

More detailed information concerning all courses offered and course numbers. Now includes electives outside the Division (pages 46-57).

13) Appendix IV, "Letters of Support"

Letters from individuals outside the Division describing their contributions to certain courses (pages 59-63).

14) Appendix V, "Curriculum Vitae of Core Faculty"

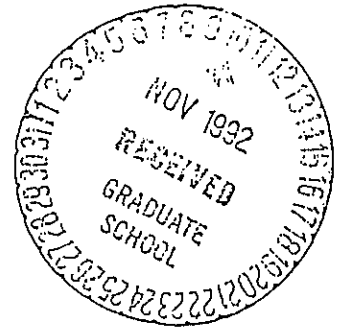
The CVs of only the Core Faculty are now included.



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November 5, 1992

Jo Anne K. Hecker, Associate Dean
Graduate School
University of Miami
P. O. Box 248125
Coral Gables, Florida, 33124-2220

Dear Dr. Hecker:

Jules and I were both very honored and pleased to be part of the review for the PhD Program in Physical Therapy. As per your request, I have enclosed the joint report which evolved from our data gathering during the two days at the university. We will both be anxious to hear of future developments with this program.

If there is anything else that we may do, please do not hesitate to contact us.

Sincerely,

Marilyn Moffat, PT, PhD, FAPTA
Professor

MM:dmm

encl.

REVIEW OF PhD IN PHYSICAL THERAPY PROPOSAL

by
Marilyn Moffat, PT, PhD, FAPTA
Jules Rothstein, PT, PhD

RATIONALE AND NEED

The faculty is to be commended for its proposal for a research doctoral degree program in Physical Therapy. A well developed justification of the need for the PhD degree in Physical Therapy at the University of Miami has been presented. It reflects the needs of the profession as well as the needs of establishing research as a basis for physical therapy practice in the evolving health care delivery system. It recognizes the necessity of attempting: 1) to help alleviate the present shortage of doctorally trained faculty; 2) to develop leadership positions in research, education, and clinical practice; and 3) to develop physical therapists who will begin to look at the efficacy of established practice parameters.

STRENGTHS OF THE PROPOSAL

Many sources of support exist within the structure of the division, the department, and the school to facilitate the inception of the proposed PhD program.

Faculty

All members of the full-time physical therapy faculty who would be involved in the doctoral program possess the doctoral degree. This is a major asset for the program in light of the fact that only 2% of the entire physical therapist population within the United States possess the doctoral degree. The varied research backgrounds and research interests of the faculty will provide the students in this program with diversified, in-depth experiences necessary for graduate education. Publication histories, research activities, grantsmanship, and student activities are collectively significant attributes of this very strong faculty. In addition, the leadership provided by Dr. Hayes is evidenced by the strong growth and development of this division over the past six years.

Facilities

The facilities in the division, the VA Hospital, and the medical school to support the program are impressive. The Steven J Rose Center for Clinical Research in the Physical Therapy Division has 5,000 square

feet of laboratory space with equipment to support research in the areas of motion analysis, balance, cardiopulmonary, and human performance and isokinetic studies. Through start up funds from the Physical Therapy Division and provision of space by the VA Hospital, one of the physical therapy faculty has a well respected Connective Tissue Research Laboratory in the VA Hospital. It is also anticipated that opportunities would exist for student use of the Biomechanics Laboratories in the Department of Orthopaedics and Rehabilitation, the Motion Analysis Laboratory at Miami Children's Hospital, and the Motion Analysis Laboratory in the Department of Industrial Engineering.

Libraries

Library support for doctoral research is a further asset of the proposal. Computer capabilities within the division, library resources within the division, and the Calder and Richter Libraries provide the facilities needed for graduate research.

Administration

Conversations with the Provost, the Dean of the School of Medicine, and the Vice-Provost and Deputy Dean of the School Medicine indicated support for the Physical Therapy Division. The budgetary needs of the proposed program are expected to be handled through the existing Division process.

Transition from Entry-Level

The Division has outlined verbally how it will facilitate transition from entry-level to doctoral education. Special consideration will be given to those Physical Therapy Graduates from the University of Miami entry-level program who want to continue on with doctoral education.

ITEMS TO BE ADDRESSED

Potential Interactions with Other Departments

The proposal alludes to the interaction between other departments and divisions within the university. We would suggest that these interactions be clearly delineated in the proposal (e.g., including but not limited to identification of faculty within other departments available for teaching, faculty available to serve on doctoral committees, etc.) and that specific opportunities for students in the proposed program be stated and supported with documentation from the specific department or division of the university.

Relationship to Entry Level/Graduate Programs

The reviewers suggest that the master's degree need not be a requirement for admission to the PhD program in Physical Therapy. We do believe that a mechanism should be described which enables the students who do not complete the PhD program to obtain a master's degree when appropriate. In addition, the special considerations which will be given to the University of Miami entry-level students who proceed into the doctoral program should be specified.

Laboratory Facilities

The report presented to the Programs and Degrees Subcommittee should delineate the equipment available to the students in the existing laboratories (Steven J Rose Clinical Research Laboratory, Connective Tissue Research Laboratory, two Biomechanics Laboratories in Department of Orthopaedics and Rehabilitation, the Motion Analysis Laboratory at Miami Children's Hospital, and the Motion Analysis Laboratory in the Department of Industrial Engineering) and should specify the nature of ongoing physical therapy research by the physical therapy faculty in those facilities. The letters in support from outside departments should indicate the extent to which these facilities may be used. Any existing collaborative arrangements between physical therapy faculty and these laboratories should also be described.

Curriculum

The areas of concentration for the PhD degree should be delineated with possible models for implementation included in the proposal. The faculty is to be commended on its recognition of the need for alternative tracks within the PhD program which would allow the students needs to be met and at the same time allow for the best use of faculty expertise.

The proposed course requirements seem unrealistic and excessive in light of requirements within other departments of the university. Suggestions have been given to bring course requirements into alignment with existing science departments.

Interdisciplinary and Cooperative Work

The team did not have the opportunity to meet with the Chair, or his designee, of the Department of Orthopaedics and Rehabilitation although the original schedule allotted time for such a visit. Thus, we are unable to comment on the support of the Department for the Division's proposal. In addition, the proposal does not reflect how the Department will relate (manage, interdigitate, etc) with the proposed program. To the best of our knowledge, there is no precedent within the University of a single Division within a Department offering its own PhD degree. These issues would be

irrelevant if the Division became a Department. This change would be strongly supported by the review team, as well as the faculty of the Physical Therapy Division.

Current relationships between the division and other departments within the university should be detailed. It is assumed that existing relationships will be further strengthened and that new relationships to meet the needs of the proposed program will be established.

Enrollment

Although the admissions criteria are delineated within the proposal, the processes involved in admission (who appoints the admissions committee, who is eligible to serve on the committee, etc) should be described.

In open discussion with the faculty over the two day period of time, the needs of all concerned parties (students, faculty, administration) were reviewed in light of the original proposal to accept only two students into the program per year. We had serious concerns about the viability of a program that admitted only two students per year. Would there be a critical mass of students? Would two students in each class provide the appropriate milieu for doctoral education? What would happen if one student dropped out of the program? Would faculty be permitted to teach a course with only two students on an ongoing basis? Are the goals established within the first pages of the document then fulfilled if only two students are expected to enter and graduate from the program within an approximate period of time of 4-5 years? Various mechanisms were discussed with the faculty to meet this concern (including part time students, alternative funding resources, stipend amounts, etc).

Need for Additional Faculty

We have requested the faculty to further clarify the need for one additional faculty. The area of expertise sought in this individual should be described and the relationship to the rest of the Division should be detailed.

Retention Requirements

The proposed requirements for maintenance of matriculation must be addressed. Nine points per year seems excessive to maintain one's enrollment status within the Division, particularly when one has reached the research phase of the program.

Teaching/Research Assistants

We urge the faculty to reexamine the size of the proposed stipend with particular concern as to how many stipends may realistically be awarded in light of all departmental considerations. Recognition of possible grant support for such stipends must eventually be considered.

Letters of Support

Additional and more specific letters of support should be obtained from all departments who may be participating in the proposed program.

Division Structure

Because of our serious concerns for a structure that will outlast personalities, we believe that an alternate structure is essential. Thus, a strong recommendation is made to give the Physical Therapy Division departmental status. While the current structure provided support to the program during its developmental phase, the Division now appears ready to be duly recognized on its own merits.

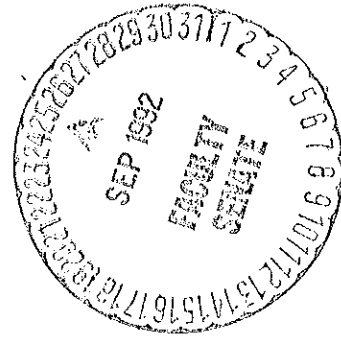
Tenure

A further glaring concern is the fact that there is not a single member of the Physical Therapy Division who possesses tenure at this time. While we recognize various options to tenure track lines within a faculty, for a PhD program entering students must have some assurance that faculty will be there throughout the course of their research. In reviewing all c-v's, it was apparent to these reviewers that at least three of the current faculty would meet all of the standard criteria for tenure. We earnestly hope that this issue will be addressed promptly.

SUMMARY

This proposal for the development of a PhD degree program in physical therapy is a sound one based upon the multiplicity of strengths within the division, department, and school. Meetings with currently enrolled students, graduate students in the advanced master's degree program, and practicing clinicians from area facilities indicated a potential pool of students for the proposed program. This academically and clinically strong, faculty, coupled with excellent research facilities, will make this one of the finest doctoral programs in physical therapy in the country.

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MEMORANDUM

September 24, 1992

FAXED
9-25-92

TO: *Dr. William Whelan, Chairman
Faculty Senate and Government*

FROM: *Jo Anne K. Hecker, Interim Dean
The Graduate School*

SUBJECT: *Ph.D. Proposal for Physical Therapy*

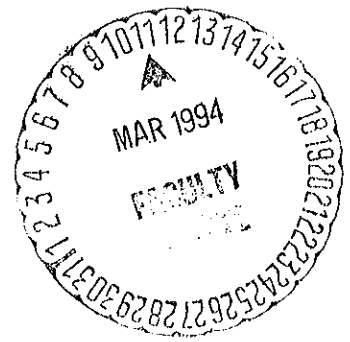
A new Ph.D. Proposal for Physical Therapy has been submitted to the Graduate School for approval.

The Subcommittee for Programs and Degrees will meet in October with the external reviewers and a representative designated by the Faculty Senate for this new program's review. We should be able to forward it to you well before the March 1, 1993 deadline.

A handwritten signature in cursive script, appearing to read "Jo Anne K. Hecker".

JKH:nb

DIVISION OF PHYSICAL THERAPY
SCHOOL OF MEDICINE



PROPOSAL FOR A PH.D. IN PHYSICAL THERAPY

Highlights:

Importance: Growing Profession, Faculty shortage

Physical therapy is one of the fastest growing professions today, with a severe nationwide shortage of practicing professionals to fill current positions. With an expected growth of approximately 57% in new jobs by the year 2000, the demand will continue to exceed supply. New programs are being instituted in many institutions, but with a nationwide faculty vacancy rate of 15%+, there are insufficient faculty to fully staff existing programs. The developing programs are only intensifying the current shortage of faculty, and spreading the number of available persons even thinner. In Florida alone, the number of physical therapy programs has grown from 4 to 7 in the last 3 years, with 4 more programs developing this year, for a total of 11 (or an increase of 175% in the last 3 years.)

Usefulness:

Based upon the summary report from the external reviewers (Drs. Moffat and Rothstein), "the proposal is a sound one based upon the multiplicity of strengths within the Division, Department and School..This academically and clinically strong faculty, coupled with excellent research facilities, will make this one of the finest doctoral programs in physical therapy in the country."

The Division of Physical Therapy has grown to be one of the largest, strongest and most-esteemed programs in the country. It is recognized as a prestige program to which others aspire to emulate. The strengths enumerated above by the external reviewers lend support to this faculty's desire to continue to grow through the doctoral program. Our expressed goals of this doctoral program are to prepare physical therapy faculty members, through inculcating scientific thinking and analysis in the study of human movement, and socializing the clinically competent professional into academe. Through focused study in the physical therapy, education and research core courses, the prospective student will be mentored in the teaching process, as well as have the opportunity to develop a research focus in our laboratories.

Admissions Standards:

Over the last few years, our entry level Master's Program in Physical Therapy (MSPT) has attracted greater numbers of highly qualified applicants each year. For the new class (of 1996) just admitted this year, we had over 530 applicants for 60 positions in the class. Final statistics were just completed for the class beginning in May, 1994, and they

exceed those of last year (class of 1995). Mean scores for the most recent two classes are the following:

May 1993 Class (1995)		May 1994 Class (1996)	
GPA:	3.30	GPA:	3.35
GRE-V:	531	GRE-V:	548
GRE-Q:	619	GRE-Q:	654
GRE-A:	626	GRE-A:	667

As can be seen, these are strong students who exceed the minimal criteria of most programs in the Graduate School. Many of these students (10-20% of each class of 60) have expressed the desire for doctoral study. There are 8 graduates currently enrolled in PhD programs elsewhere at the present time. The most recent class who graduated in December of 1993 was only the 6th class, since 1988. These students, along with clinicians both local and elsewhere who are desirous of doctoral study and an academic career in physical therapy, will assure a strong and steady pool of applicants for this PhD program.

Budgetary Impact of the PhD Program:

Based upon conservative estimates of number of students, both part-time and full-time, the budgetary impact of this program is minimal, as demonstrated in the following summary except from the Proposal (p. 47):

Revenues and Cost:

Year	Revenues	Cost	Net Effect
Year 1 (1994-95)*	\$ 30,720 (4 PT)	\$ 22,000	\$ + 8,720
Year 2 (1995-96)**	61,440 (2 FT, 4 PT)	92,720	- 31,280
Year 3 (1996-97)	122,880 (4 FT, 8 PT)	163,440	- 40,560

* The abbreviation used refer to PT = Part-time students, and FT = Full-time students. Costs for this year refer to the Administrative cost to the Associate Director of Graduate Studies and for the PT stipends for the doctoral students.

** Year 2 and subsequent years include full-time and part-time stipends for doctoral students. This cost will actually be less, since these assistantships will take the place of current budget costs for Adjunct clinicians to assist in laboratory courses and part-time teaching (approximate cost for FY 93/94 was \$ 25,000). It is envisioned that with doctoral students in place, there will be less need for these expenditures to outside persons (in other words, more cost-effective).

Shortfalls due to net cost can and will be absorbed by the Division of Physical Therapy budget. The Entry Level Masters Program (MSPT) is the mainstay of the Division in terms of generating tuition revenues. Next year (94/95) there will be 174 full-time students in the three classes. Tuition revenues from this program, coupled with sponsored research of faculty will accommodate any shortfalls incurred by the PhD program.

The Curriculum:

Based upon our belief that the science of physical therapy is strongly embedded in the study of human movement science, we have capitalized on this and our faculty strengths in providing for a strong science base, coupled with physical therapy education and research courses. The faculty value their roles as educator and researcher in preparing future clinicians, and in contributing to our body of knowledge through scientific study and writing.

A sample curricular plan of study for a full-time student is found in the next section, and is typical of the maximal program (68 credits) for a doctoral student with a Baccalaureate degree in Physical Therapy. Part-time students will spread these courses out over a longer period of time, but will follow a similar plan.

Sample Curriculum for a Full-time Student:

<p>Fall 94</p> <p>620 Inst Anal I 695 Res Meth I 696 Applied Stats 674 Ed Admin in PT <u>701 PhD Semin</u> 13 credits</p>	<p>Spring 95</p> <p>621 Inst Anal II 697 Res Meth II 677 Inst Meth 660 Th Mvmt Sci <u>702 PhD Semin</u> 11-13 credits</p>	<p>Fall 95</p> <p>622 Pathobio I 690 PT Diag *Stats elec 698 Res <u>703 PhD Semin</u> 13 credits</p>
<p>Spring 96</p> <p>*623 Pathobio II *661 Motor Lrning *Elective *Elective <u>678 Teaching Prac</u> 11-13 credits</p>	<p>Fall 96</p> <p>730 Diss *Elective 678 Teaching Prac</p> <hr/> <p>7 credits</p>	<p>Spring 97</p> <p>730 Diss *Elective 678 Teh</p> <hr/> <p>7 credits</p>
<p>Summer 97</p> <p><u>730 Diss</u> 3 credits</p>		

* = non-core courses

NOTE: 1) Certain core/elective courses will be offered on alternating years. For example, students entering in the Fall of 1994 (an even-numbered year) will take Instrumental Analysis I. Instrumental Analysis II will be given the immediately-following Spring (an odd-numbered year). In the Fall of 1995, when our second class enters, all students will take Pathobiology I (resulting in a larger class size). The following Fall (again an even-numbered

year), the students who took Pathobiology I will take Instrumental Analysis I along with the students who just entered the program. In this way, except for the initial class, the Instrumental Analysis sequence and the Pathobiology sequence will have about 10 students enrolled. Similarly, PT Diagnosis will be offered the same Fall term as Pathobiology of Human Function.

2) Although only one Summer Session is indicated above, students will have the opportunity to pursue course work during any of the summer sessions. These courses may include electives, independent study/research, etc, as determined by the student and mentor.

Summary of Recommended Changes from External and Internal Reviewers:

It should be recognized that the Proposal which was ultimately submitted to the Graduate School in 1993 was totally re-written from the original proposal presented to the external reviewers. Following the visit and consultation from the external reviewers and the Graduate School Committee, the Division of Physical Therapy withdrew our proposal to totally revise and strengthen the proposed program.

Following extensive and meaningful discussion, the second Proposal reflects the comments of the external and internal reviewers and of the Core Faculty of the Division. As with most ambitious undertakings, guided introspection allows one the opportunity to see things more clearly. Based upon the constructive feedback from all parties, the revised Proposal reflects a more focused program of study which will bring added recognition to the University of Miami.

External Reviewers: (Original Proposal)

STRENGTHS: Faculty, Teaching and Research facilities, Libraries, Administrative support, Transition from Entry Level Program to Doctoral Study.

ITEMS TO BE ADDRESSED:

1. Interactions with other Departments: Although not clearly stated in the first draft of the Proposal, these interactions have been more clearly delineated and documented by each department (Orthopaedics, Industrial Engineering, Biomedical Engineering, Medicine, Neurology).
2. Relationship to Entry Level and Post-Professional Masters' Programs: The relationship of the PhD program to our other two Masters programs have been more clearly defined in the proposal, including significant and meaningful links between the curriculums of the two Masters programs and the doctoral program.
3. Laboratories: As suggested, we have delineated the specific equipment available to prospective doctoral students in all 3 labs in the Steven J. Rose Center for Clinical Research, as well as elaborated with respect to on-going studies in the respective labs with faculty. The Steven J. Rose Center for Clinical Research occupies 5000 sq.ft. of dedicated research space on the 4th floor of the Plumer building. This space is adjacent to the PT

Clinic (2200 sq.ft.), which also serves as a research lab when necessary. The 3 labs in the Rose Center are the Cardiopulmonary lab, the Isokinetics and Back Testing lab, and the Balance and Motion Analysis lab. These 3 labs are equipped with state of the art equipment and each lab has a Director from the faculty. Additionally, we have described facilities outside the Division (in the Department) and how these can be used by the doctoral students.

4. Curriculum: As suggested, the curriculum has been delineated with sample plan of study, indicating core courses and elective areas to be individually determined based upon student needs. The proposed curriculum, having been refined, is also better in line with other doctoral programs in this institution, and with other PT PhD programs in the U.S., and is no longer excessive (in terms of # of credits) as it was previously. (Please refer to Table 1, p. 45 of the Proposal, attached).

5. Interdisciplinary and Cooperative Work: The team did not meet with the Department Chair, and were unsure as to his commitment. This support has been described in a support letter from Dr. Mark Brown in the Proposal, and is included in this summary report. The fact of this PhD being in a Division, as opposed to a Department, was pointed out as unique. This is true, but the relationship of the Division to the Department has been well-delineated in the Proposal (p. 40-42).

6. Enrollment: Originally envisioned at only 2 PhD students/year, this has been changed to 4-10 students, with a combination of full and part-time students. Courses will be offered every other year, thus doubling the enrollment.

7. Need for additional faculty: Since the external reviewers' visit, we have secured a faculty member with expertise in the area of statistics and research methodology. We do not envision need for additional faculty at the present time.

8. Stipends: These have been revised to a lesser amount but one similar to other PT PhD programs, affording the ability to offer stipends to more individuals. The amounts we have budgeted for are \$ 15,000. for each FT doctoral stipend (+ tuition remission), and \$ 5,000. for a limited number of PT doctoral stipends (no tuition remission).

9. Division Structure: the external reviewers strongly recommended a change to Departmental status. While the relationship between the Division and Department is strong and mutually satisfactory, and is well enumerated in the Proposal, this topic (Departmental status) has been discussed. The Division of Physical Therapy exists as an autonomous entity within the Department of Orthopaedics and Rehabilitation. We operate as "a Department within a Department", in that we maintain our own budget, our own physical space, our own faculty (whose appointments are in the Department). Our missions differ, with the Department being primarily clinical, research, education and the Division being education, research and clinical (with the latter being negligible). Department revenues are garnered through clinical services; Division revenues are garnered through tuition monies.

Additionally, as an academic unit, the Division maintains its own teaching and research space, conducts its own interviews and admissions for students, registers its students, follows its own curriculum, has its own committees and conducts its own graduating in December (operating like a "school" in these cases). While this arrangement is unique in this university, it has not been a hinderance to our growth and development since our inception in the School of Medicine.

10. Tenure: it was pointed out that there were no tenured members of the PT faculty when the external reviewers were here. Since that time, there is now 1 member of the faculty tenured. It is also a fact that the Division of PT is relatively new, having existed in the School of Medicine only 7 years, thus we are just beginning to bring forward individuals for tenure at the present time.

Internal Reviewers (Graduate School Committee and Council): (Revised Proposal)

1. Budget: The only issue specifically raised which was not addressed by the external reviewers was the budget issue and whether or not the Division could absorb the cost of the doctoral program. This was explained satisfactorily, and is also found on p.2 of this document.

2. Curriculum: Specific differentiation and tracking of potential applicants was requested, along with how the plan of study would differ for individuals with a BS in Physical Therapy, and Entry level masters (MSPT) or someone with a post-professional Masters (MS). This has been satisfactorily described in the Proposal (p. 25-28), and presented as different tracks, although it is complicated for those outside physical therapy to understand.

a) The sample curriculum (p. 3 of this summary) represents an example for a doctoral student with a B.S. in physical therapy, as 1 of 3 modes of entry to this Program.

b) A doctoral student with our Advanced Masters degree (M.S.) or an equivalent post-professional masters degree (following a B.S. in physical therapy) would be evaluated individually; most post-professional M.S. degrees involve 36 credits of advanced graduate work beyond the B.S.

c) A doctoral student with our entry level masters degree (MSPT) with a B.S. in a related field (not physical therapy) completes our 72 credit basic professional program at the graduate level. There is no advanced specialization coursework in this program - it is preparation for a generalist practitioner, similar to the MD track, without specialization (residency) following the MD degree and internship. These students also have a significant exposure to the research process, and would be examined individually as to "forgiveness" of 9-12 credits of research work toward the maximal doctoral curriculum.

3. Description of our current Masters programs and students: It was pointed out that we should "brag" about the calibre of students we are attracting now - this has been done.

4. Sponsored research: It was requested that we detail the level of sponsored research that our faculty is involved in. This has been done, along with a list of publications for the last calendar year, which is attached to this document, as Appendix I and II.

5. Support letter from Chair: This was included in the Proposal, and is attached to this document.

Table 1: Comparison of The Curriculum to Other Existing Ph.D. Curricula

Academic Requirements	Program					
	1	2	3	4	5	6
Minimum number of credit hours required	60	60	60	60	66	56
Dissertation Cr. Hrs.	12	12	12	12	12	12
Required Core Courses	21-25	31*	32*	34**	34**	37

Program 1 = Ph.D. in Physical Therapy, University of Iowa, Iowa City , IA

Program 2 = Ph.D. in Physical Therapy, Texas Woman's University, Houston, TX

Program 3 = Ph.D. in Physical Therapy, University of Southern California, Los Angeles, CA

Program 4 = Ph.D. in Physical Therapy, Hahnemann University, Philadelphia, PA

Program 5 = Ph.D. in Physical Therapy, New York University, New York, NY

Program 6 = Ph.D. in Physical Therapy, University of Miami School of Medicine, Miami, FL

*Includes Doctoral dissertation and two statistics courses

** Not available



Mark D. Brown, M.D., Ph.D.
Professor and Chairman
Department of Orthopaedics and Rehabilitation
University of Miami School of Medicine

December 23, 1993

Sherrill H. Hayes, Ph.D., P.T.
Director, Division of Physical Therapy
Department of Orthopaedics & Rehabilitation
School of Medicine

Dear Sheri:

This letter is written to formally support the Division's proposed PH.D. program in Physical Therapy. During the last eight years that the Division has been a part of the Department of Orthopaedics, I have watched it grow and prosper to the national status and recognition that it enjoys today. In my travels at various professional symposia throughout the country I am very proud to describe to my fellow colleagues the strong and vital link between the Division of Physical Therapy and the Department of Orthopaedics at the University of Miami. The development of a Ph.D. program is consistent with our goals to continue to be the standard to which other physical therapy programs strive to emulate.

Over the last several years there has been increased collaboration in clinical research between the Department and the Division, with several very important studies currently underway. This has been the most exciting alliance to evolve, and one which can only be strengthened in the future, with the institution of a PH.D. program and strong doctoral students interested in research. The Division's generous loan of the microscope and microtome equipment has afforded the Department a new avenue of basic structural research on tendons and ligaments which has been very exciting. The upcoming studies of diagnostic predictors of back pain, cervical myelopathy sequellae, joint proprioception and somatosensory deficits in ACL deficient patients with Drs. Roach, Spielholz and Rine are examples of just the "tip of the iceberg" as to what our combined potential can be.

Specific support for the Ph.D. program which the Department will provide will include: continued interest in collaborative clinical research in musculoskeletal pathology and diagnosis, unlimited use of the Division's microscope and microtome equipment (housed in the Department) for future studies, availability of x-ray and/or MRI scanning for selected studies, clinical databases for selected patient populations for epidemiological research studies, and serving on dissertation committees, if appropriate. Of course, participation as lecturers on specific topics in the new courses is anticipated, and can easily be arranged with each respective faculty member in the Department.

I am sure that this undertaking will prove as successful as your entry level program. I have enjoyed working with these students on their research projects and look forward to continuing to do even more with doctoral level students.

Sincerely,

A handwritten signature in black ink, appearing to be "M. D. Brown", written over a horizontal line.

Mark D. Brown, M.D., Ph.D.
Professor and Chairman

APPENDIX I

PUBLICATIONS BY DIVISION OF PHYSICAL THERAPY FACULTY, JANUARY 1, 1993 TO DECEMBER 31, 1993

- 1) Lahey BB, Hart EL, Pliszka S, Applegate B, McBurnett K: Neurophysiological correlates of conduct disorder: A rationale and review of research. *J Clin Child Psych*, 22:141-153, 1993.
- 2) Montague M, Applegate B: Mathematical problem-solving characteristics of middle school students with learning disabilities. *J Spec Ed*, 27(2):175-201, 1993.
- 3) Montague M, Applegate B: Middle school students' mathematical problem solving: An Analysis of think-aloud protocols. *Learning Disabil Quart*, 16:19-32, 1993.
- 4) Montague M, Applegate B, Marquard K: The effects of cognitive strategy instruction on mathematical problem solving performance of students with learning disabilities. *Learning Disabil Res Pract*, 8:223-232, 1993.
- 5) Curtis KA, Martin T: Perceptions of acute care physical therapy practice issues for Physical Therapist preparation. *Phys Ther*. 73:581-598, 1993.
- 6) Davis CM, Humerickhouse R, Murphy T: A comparison of endurance as measured by the physiological cost index among elderly people. *Physical and Occupational Therapy in Geriatrics*, October, 1993.
- 7) Fiebert IM, Lebowitz NH: Rehabilitation for patients with lumbar spinal stenosis. *Orthop Phys Ther Clinics North Amer*, 2:265-276, 1993.
- 8) Fiebert IM: An overview of functional progressions in the rehabilitation of low back patients. *J Back Musculoskel Rehabil*, 3:36-49, 1993.
- 9) Fiebert IM, Spyropoulos T, Peterman D, Dotson L: Thoracic segmental flexion during cervical forward bending. *J Back Musculoskel Rehabil*, 3:80-85, 1993.
- 10) Gailey RS, Lawrence D, Burditt C, Spyropoulis P, Newell C, Nash MS: The CAT-CAM socket and quadrilateral socket: a comparison of energy cost during ambulation. *Prosth & Orthot Intl*. 17:95-100, 1993.
- 11) Nash MS, Multach M, Banovac K, D'Errico JA, Miller SL, Ledford MR, Kent JW, Klose KJ: Fibrinolytic responses to desmopressin acetate (DDAVP) infusion in exercise-trained and untrained quadriplegics. In, Blank M, (ed) *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, 1993.
- 12) Nash MS, Ledford MR, Kent JW, Green BA: Acute endothelial plasminogen response to electrically stimulated cycling exercise in human quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 717-719, 1993.

- 13 **Nash MS, Hughes JR, Green BA:** Acute effects of electrically stimulated cycling exercise on oxyhemoglobin affinity in quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 782-784, 1993.
- 14) **Nash MS, Spielholz NI:** Influence of electrically stimulated cycling exercise on H-reflexes in human quadriplegia. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 785-788, 1993.
- 15) **Nash MS, Spielholz NI:** The effects of aging and exercise on bone and skeletal muscle. *Orthop Phys Ther Clinics North Amer*, 2: 225-240, 1993.
- 16) **Roach KE:** The epidemiology of musculoskeletal disorders and their associated disability in the elderly. *Orthop Phys Ther Clinics North Amer*, 2:215-224, 1993.
- 17) **Podhorodecki A, Spielholz NI:** Electromyographic study of overuse syndromes in sign language interpreters. *Arch Phys Med Rehabil*, 74:261-262, 1993.
- 18) **Spielholz NI, Rosenblum JA, Lee MHM, Geisel LC:** Unilateral leg pain in a drug-abuser following ipsilateral rhabdomyolysis and peripheral nerve injury. *Am J Pain Management*, 3:57-59, 1993.

ARTICLES/CHAPTERS IN PRESS

- 1) **Budiman ME, Roach KE, Stuck R, Spencer F, Palizo T, Conrad KJ:** Radiographic measurement of hallux valgus in rheumatoid arthritic foot. *J Rheumatol*.
- 2) **Burnham RS, Curtis KA:** Shoulder problems in the wheelchair athlete. In (Petrone FA, ed): *The Athlete's Shoulder*, McGraw Hill, Publ.
- 3) **Curtis KA:** Attributional analysis of interprofessional role conflict. *Soc Sci Med*.
- 4) **Fiebert IM, Keller CD:** Are "passive" extension exercises really passive? *J Ortho Sports Phys Ther*.
- 5) **Fowers BL, Applegate B, Olson DH, Pomerantz B:** Marital conventionalization as a measure of marital satisfaction: A confirmatory factor analysis. *J Fam Psychol*.
- 6) **Frick PJ, Lahey BB, Applegate B, Kerdyck L, Ollendick T, Hynd GW, Garfinkel B, Greenhill L, Biederman J, Barkley RA, McBurnett K, Newcorn J, Waldman I:** DSM-IV field trials for the disruptive and attention deficit disorder: Diagnostic utility of symptoms. *J Am Acad Child Adolesc Psychiat*.
- 7) **Hart EL, Lahey BB, Loeber R, Applegate B, Green S, Frick PJ:** Developmental change in attention-deficit hyperactivity disorder in boys: A four year longitudinal study. *J Consult Clin Psychol*.
- 8) **Lahey BB, Applegate B, Barkley RA, Garfinkel B, McBurnett K, Kerdyck L, Greenhill L, Hynd GW, Frick PJ, Newcorn J, Biederman J, Ollendick T, Hart EL, Perez D, Waldman I,**

Shaffer D: DSM-IV field trials for oppositional defiant disorder and conduct disorder in children and adolescents. Am J Psychiat.

- 9) **Nash MS**, **Bilsker MS**, **Hughes J**, **Kearney HM**, **Ramirez JN**, **Applegate B**, **Green BA**. Echocardiographically-derived wall motion and cardiodynamic responses to electrical stimulation cycle ergometry and lower extremity passive motion in tetraplegics. Paraplegia.
- 10) **Shaw JA**, **Campo-Bowen AE**, **Applegate B**, **Perez D**, **Antoine LB**, **Hart EL**, **Lahey BB**, **Testa R**, **Devaney A**: Young boys who commit serious sexual offenses: Demographics, psychometrics and phenomenology. Am Acad Psychiat Law.
- 11) **Spielholz NI**: Intraoperative monitoring using somatosensory evoked potentials. In (De Lisa J, Mackenzie K, Baran EM, eds): Manual of Nerve Conduction Velocity and Clinical Neurophysiology, 3rd Edition, Raven Press.
- 12) **Spielholz NI**: Intraoperative monitoring of the spinal cord and selected peripheral nerves. In (Dumitru D, ed): Textbook of Electrodiagnostic Medicine.

Names in **bold** are Division faculty, names underlined were MSPT students

APPENDIX II

**DIVISION OF PHYSICAL THERAPY FACULTY SPONSORED SUPPORT:
PENDING OR AWARDED**

PROPOSALS PENDING

<u>FACULTY MEMBER</u>	<u>AGENCY</u>	<u>% TIME</u>	<u>TOTAL AWARD</u>
Brooks Applegate	NIMH	5%	\$990,381 (4 yrs)
Brooks Applegate	NIMH	5%	\$461,400 (3 yrs)
Carol Davis (PI)	Culpepper Found.	5%	\$15,000/yr x 3
Kathryn Roach (PI)	FPT ¹	20%	\$26,571 (1 yr)
Kathleen Curtis	FPT ¹	10%	
Brooks Applegate	FPT ¹	5%	
Kathryn Roach	VA	10%	\$47,700/yr x 2
Rose Marie Rine (PI)	DHHS, PHS	15%	\$33,599 (1 yr)
Sue Lindeblad	DHHS, PHS	5%	
Neil I. Spielholz	DHHS, PHS	5%	
Brooks Applegate	DHHS, PHS	2%	
Rose Marie Rine (PI)	FPT ¹	20%	\$52,528 (2 yrs)
Helen Maisin	FPT ¹	10%	
Sue Lindeblad	FPT ¹	5%	
Brooks Applegate	FPT ¹	5%	

GRANTS AWARDED WITHIN LAST YEAR

Brooks Applegate	NIMH	5%	\$358,190 (3 yrs)
Brooks Applegate	DHRS, FL	20%	\$1,873,000 (1 yr)
Carol Davis (PI)	FPTA SRA ²		\$1,000.00
Kathleen Curtis (PI)	PVA ³		\$2,992.00
Kathleen Curtis (PI)	Sunrise Medical		\$9,000.00
Kathryn Roach	DHHS, PHS	5%	\$75,000/yr x 3
Sherrill Hayes	Private Donor		\$35,000 (5 yrs)

(see next page for superscripts)

- ¹ = Foundation for Physical Therapy
- ² = Florida Physical Therapy Association Student Research Award
- ³ = Paralyzed Veterans of America

**EQUIPMENT DONATIONS WITHIN LAST YEAR TO SUPPORT DIVISIONAL
RESEARCH AND TEACHING**

<u>OBTAINED BY</u>	<u>VENDOR</u>	<u>VALUE</u>
Penny Kroll & Neil Spielholz	Isotechnologies B200	\$75,000
Neil I. Spielholz	Verimed Myoexercisor 1000 (EMG Biofeedback)	\$10,195
Neil I. Spielholz	Neurotron Neurometer	\$ 8,500
Neil I. Spielholz	Phyaction 787, Multi- purpose electrical stimulator	\$ 4,995

DIVISION OF PHYSICAL THERAPY CORE FACULTY
RESEARCH AREAS AND INTERESTS AS SHOWN BY ONGOING (1993-1994) AND LAST YEAR'S
(1992-1993) IRB-APPROVED STUDIES

* = Member of Graduate Faculty

Brooks Applegate, Ph.D.*

IRBs in Progress, 1993-1994

1) Post-Traumatic Stress Disorder in Head Start Children After Hurricane Andrew. Collaborator: Alan Delamater, Ph.D. This project has 2 specific aims. One is to determine the rate and course of PTSD among preschool headstart children and their mothers who were exposed to Hurricane Andrew. The second to identify factors affecting children's PTSD over the 12 month period following the storm.

2) Peer Relations, Peer Support, and Adjustment. Collaborator: Annette LaGreca, Ph.D. This project examines the role of peer relations and peer friendship support as correlates and predictors of children's psychological adjustment and to explore whether peer friendship support serves a protective role in moderating the association between children's peer relations and psychological adjustment.

Kathleen A. Curtis, Ph.D., P.T.*

IRBs in Progress, 1993-1994

1) The Influence of Perceived Prior Level of Function and Social Support on Therapist Projections of Patient Functional Outcomes. This study examines the influence of two factors which influence therapist decision-making in goal setting and projecting patient discharge destination: (a) patient prior level of function and (b) level of social support. The study will increase our understanding of the therapist decision-making processes, and determine whether therapist biases may actually prevent some patients from achieving their functional potential, or, encourage resource allocation in cases when there is little chance for functional improvement.

2) Development of a Shoulder Pain and Disability Index for Spinal Cord Injured Subjects. This project developed and validated a shoulder pain and disability index (Wheelchairs User's Shoulder Pain Index (WUSPI)) for assessment of wheelchair-bound spinal cord injured patients based upon a previously published Shoulder Pain and Disability Index.

3) Shoulder Pain in Wheelchair Users: The Functional Cost. This study will initiate a nationwide longitudinal survey of wheelchair users who will complete a previously developed and validated functional index. The index will assess difficulties in performing daily activities such as transfers and wheelchair propulsion due to shoulder pain.

4) The Influence of Wheelchair Seat Positioning on Shoulder Motion and Energy Expenditures during Wheelchair Propulsion. Collaborator: Shihab Asfour, Ph.D. (Department of Industrial Engineering) The purpose of this study is to examine the biomechanical properties and metabolic cost of unloaded and resistive wheeling in both anterior and posterior pelvic tilt positions in wheelchair users. The specific aims are to determine: 1) the change in motion of the glenohumeral, and elbow joints when the pelvis is placed in an anterior and a posterior tilt, respectively, and 2) whether the metabolic cost of locomotion or lung volumes are altered by these positions.

Carol Davis, Ed.D., P.T.*

IRBs in Progress, 1993-1994

1) Characteristics of Thought Employed by Physical Therapists as They Resolve Ethical Dilemmas. The purpose of this phenomenological study is to discover whether physical therapists recognize ethical dilemmas as they occur in practice and, if they do, to identify common characteristics of thought that they use to resolve them.

2) Ethical Dilemmas Facing Physical Therapists in Clinical Practice in the United States. The intent of this research is to make known which moral dilemmas physical therapists most commonly face in practice, and how they solve them.

Ira M. Fiebert, Ph.D., P.T.*

IRBs in Progress, 1993-1994

1) Forward Head Posture and its Correlation to the Severity and Frequency of Cervical Pain. This study investigates whether a correlation exists between measures of forward head posture and reported descriptions of severity and frequency of neck pains.

2) Cervical Range of Motion of Individuals 60 and Older. This study will determine if older individuals have cervical range of motion that is consistent with presumed clinical standards.

3) Electromyography and Force of the Medial and Lateral Hamstring Muscles. These electrical and mechanical studies will help determine under what conditions the medial and lateral hamstring muscles work as separate entities or as a unit.

Sherrill H. Hayes, Ph.D., P.T.*

IRB's Completed, 1992-1993

1. M.S. Prepared Physical Therapists: Perceived Educational Preparation and Professional Values. This study continued a previous one examining differences in B.S. and M.S. prepared physical therapists, role incongruity between what their education prepared them for and the reality of the clinical practice environment, and the professional socialization process in an emerging profession.

2. Intrinsic and Extrinsic Values of Entry Level Masters Physical Therapy Students. This study examined values held by students in their professional education program, using the Values Scale by Neveill & Super, which examined such values as altruism, autonomy, physical prowess, prestige, economic security, etc.

IRB's in Progress, 1993-1994

1. Changes in Life Role Values Due to Professional Socialization in Physical Therapy. This study examined longitudinal changes in physical therapy student values during the course of their professional curriculum, and compared these values to those of practicing clinicians using the Value Scale.

2. Comparison of Intrinsic and Extrinsic Values in Physical Therapy, Occupational Therapy, Nursing and

Medical Students. This study is an extension of #2 above, with comparison groups of students and will compare these students' values on altruism, autonomy, prestige, etc.

3. Examining Predictor Variables in the Physical Therapy Admissions Process - What Predicts Success in An Educational Program. With an applicant: admission ration of > 10:1, it is important to identify variables that will predict success in a PT program. This study is a retrospective analysis of students in the MSPT program at UM, examining admissions variables to identify the best predictors of success in the graduate program.

Penny G. Kroll, Ph.D., P.T.

IRBs Completed, 1992-1993

1) The Effect of Previous Contraction Condition on Subsequent Eccentric Power Production in Elbow Flexor Muscles. The purpose of this study was to assess and compare power production during constant velocity eccentric loading of the elbow flexor muscles in human subjects under three conditions: 1. when preceded by passive elbow flexion; 2. when preceded by maximal concentric contraction of the elbow flexor muscles; 3. when preceded by maximal isometric contraction of the elbow flexor muscles.

IRBs in Progress, 1993-1994

1) Stability of Back ROM, Power, and Velocity using the B-200 Back Testing Devices. The purpose of this study is to determine if subjects require pre-training on the B-200 prior to establishing reliable baseline measurements of range of motion, torque and velocity.

2) Examination stability of measures of low back strength, ROM, and velocity using the B-200 Back Testing Device. The purpose of this study is to ascertain the stability of measures of range of motion, velocity and torque obtained from subjects tested on the B-200 over a one year time span.

3) The Effect of Increased Hamstring Flexibility on Work and Peak Torque Production During a Concentric Contraction. The purpose of this study is to evaluate the effect of a 20% increase in hamstring flexibility on muscle peak torque and work production during a concentric contraction.

4) Effectiveness of Gravity Traction as Adjunct to Exercise for Stretching Muscles in Chronic Low Back Pain Patients. The purpose of this study is to compare the effects of stretching exercises and traction with the same exercises and a placebo (inactive) traction in persons with low back pain.

Mark S. Nash, Ph.D.*

IRBs in Progress, 1993-1994

1) The physiological response of spinal cord injured men to nine months of FES cycle ergometry. Collaborators: Martin S. Bilsker, M.D. (Department of Medicine, Division of Cardiology), Marlies Ledford, MT (ASCP) SH (Department of Pathology), William Millard, Ph.D. (Department of Pharmacodynamics, University of Florida), Mary Ann Fletcher, Ph.D., (Departments of Medicine and Microbiology/Immunology), Mahendra Kumar, Ph.D. (Department of Psychiatry and Behavioral Medicine), Jamshid Teranzadeh, M.D., Department of Radiological Sciences, University of California, Irvine) and Barth A. Green, M.D. (Department of Neurological Surgery). This study investigated the effects of computer-sequenced electrically-stimulated lower extremity muscle contractions in

quadriplegic subjects on : a) echocardiographically-derived cardiac wall motion and function, b) liberation of the endothelial-derived tissue-type plasminogen activator (tPA), its fast plasminogen activator antagonist, and prothrombin activation, c) somatotropinogenesis, d) leukocytosis and augmentation of Natural Killer [NK] cell numbers and cytotoxicity, e) hormones of the neuroendocrine axis and HPAC system, and f) induction of bone and joint pathology assessed by MRI.

2) Effects of Naloxone on Suppression of the Natural Killer Cell Responses to Electrically-Stimulated Cycling Exercise in Human Quadriplegics. Collaborators: Kresmir Banovac, M.D. (Department of Medicine), Mary Ann Fletcher, Ph.D., (Departments of Medicine and Microbiology/Immunology), and Mahendra Kumar, Ph.D. (Department of Psychiatry and Behavioral Medicine). The purpose of this study was to examine whether the opioid receptor antagonist Naloxone would abolish the rise in NK cell killing observed following electrically-stimulated cycling in human quadriplegics.

3) Gait analysis of normal subjects with and without rolling footwear. Collaborators: Peter P. Tarjan, Ph.D. (Department of Biomedical Engineering), Shampa Sarkar, M.B.B.S. (Department of Biomedical Engineering), Shihab Asfour, Ph.D. (Department of Industrial Engineering), and Loren Latta, Ph.D. (Department of Orthopaedics and Rehabilitation). This study examined the metabolic responses, weight-bearing forces, and stride characteristics of normal subjects while using a prototype rolling footwear designed for persons with disabling neuromuscular disease and trauma.

4) Lower Extremity Blood Flow and Hyperemic Responses to Venous Occlusion in Electrically-Stimulated Trained and Untrained Quadriplegics. Collaborators: Berta Montalvo, M.D., (Department of Radiology) and Barth A. Green, M.D. (Department of Neurological Surgery). The study examined whether differences in lower extremity inflow volume, peak systolic flow rate, flow-velocity integral, and common femoral artery cross-sectional area exist among electrically-stimulated trained and sedentary quadriplegics and their age- and gender-matched non-disabled cohorts.

5) Influence of Electrically-Stimulated Cycling Exercise on H-Reflexes in Human Quadriplegia. Collaborator: Carol N. Vandenakker, M.D. (Department of Orthopaedics & Rehabilitation). This study examined whether 30 minutes of steady-state electrically-stimulated cycling or the control condition (passive motion), altered lower motor neuron excitability in quadriplegics as assessed by the ratio of H to M waves.

6) Immune and Cardiopulmonary Consequences of Aging in Human Paraplegia. Collaborators: Martin S. Bilsker, M.D. (Department of Medicine, Division of Cardiology), Berta Montalvo, M.D., (Department of Radiology), Robert K. Rhamy, M.D. (Department of Urology and Chief, Spinal Cord Injury Service, VAMC), Mary Ann Fletcher, Ph.D. (Departments of Medicine and Microbiology/Immunology), and Barth A. Green, M.D. (Department of Neurological Surgery). This cross-sectional design tests whether differences exist among aging paraplegics and their age- and gender matched nondisabled cohorts for: a) lower extremity inflow volume, peak systolic flow rate, flow-velocity integral, and common femoral artery cross-sectional area, b) phenotypic and functional immunocompetence and c) cardiovascular function as evaluated by separate dobutamine and exercise stress trials.

7) Effects of Moderate Exercise on Orthostatic Responses to Head-Up Tilt in Patients with Paraplegia and Tetraplegia. Collaborators: Kresmir Banovac, M.D. (Department of Medicine). This study examines the influence of arm exercise on the orthostatic vasomotor response to head-up tilt in acutely-injured quadri- and paraplegics.

8) The Assessment of a Walking System for Paraplegics Using Neuromuscular Stimulation. K. John Klose, Ph.D. (Department of Neurological Surgery), Berta Montalvo, M.D., (Department of Radiology), Marlies Ledford, MT (ASCP) SH (Department of Pathology) and Barth A. Green, M.D. (Department of Neurological Surgery). This study examines: a) the metabolic responses of chronic paraplegics to

microprocessor-controlled electrically-generated ambulation, b) whether ambulation alters central or peripheral metabolic or circulatory function, and c) the extent to which computerized electrically-stimulated ambulation stimulates an exercise hyperfibrinolysis.

Rose Marie Rine, Ph.D., P.T.

IRBs Completed, 1992-1993

1) Using Relative Phase Angle to Quantify Motor Control During Gait. This study utilized the Motion Analysis Expert Vision System to obtain and compare kinematics and phase angles of the hips and knees in normal children and those with spastic cerebral palsy during gait.

2) Reliability of the Post-Rotary Nystagmus Test. This study investigated intra- and inter-tester reliability in measuring nystagmus in children following a standardized rotation in a chair.

IRBs Approved, 1993-1994

1) Vestibular and Motor Function of Hearing Impaired Children. Collaborators: Rebecca R. Fewell, Ph.D. (Department of Pediatrics); D. Kimbrough Oller, Ph.D. (Co-Director, Model Program for the Hearing Impaired); Kathleen C. Veraga, M.A. (Educational Director, Model Program for the Hearing Impaired). This study investigates whether a correlation exists between different types of vestibular dysfunction and other motor deficits in children with profound hearing impairment.

Kathryn E. Roach, Ph.D., P.T.*

IRBs in Progress, 1993-1994

1) Development of a Data Based Screening Instrument for the Classification of Subjects with Low Back Pain. Collaborator: Mark Brown, M.D., Ph.D. (Chairman, Department of Orthopaedics and Rehabilitation). This project attempts to identify diagnostic and prognostic characteristics of patients with low back pain which may be used to develop algorithms to guide decisions by physical therapists concerning the appropriate treatment and referral of LBP patients.

2) Development of a Low Back Pain and Disability Index. This project attempts to develop a more precise measure of the pain and disability experienced by patients with low back pain.

3) Factors Predicting Functional Outcome in Acute Care Physical Therapy. Collaborators: Parkway Regional Medical Center. This project will measure the impact of the duration and intensity of physical therapy interventions on the functional outcome of patients in the acute care setting.

4) Activity versus Discourse to Improve Communication in Patients with Alzheimer's Disease. Collaborator: Ruth Tappen, Ph.D. (UM School of Nursing). This study compares the impact of ambulation, ambulation and conversation, and conversation alone on physical function and communication in patients with Alzheimer's disease.

5) The Association between Habitual Activity in Musicians and Musculoskeletal Pain Syndromes. This study utilizes a self-administered questionnaire to compare the prevalence of musculoskeletal pain complaints between music students and other students on the UM campus.

Neil I. Spielholz, Ph.D., P.T.*

IRBs Completed, 1992-1993

1) The Effects of Upper Extremity Aerobic Exercise on H/M Ratios in Non-Disabled Individuals. This study investigated the possible generalized "relaxing" effect of aerobic exercise by determining an electrophysiological measure of alpha anterior horn cell excitability, the H/M ratio.

2) The Electroanalgesic Effect of Transcutaneous Electrical Nerve Stimulation (TENS) on Current Perception Threshold (CPT) on the Anterior Surface of the Forearm. This study investigated the ability of TENS, applied in the so-called "conventional" mode, to raise the current perception threshold (measured in microamps) to presumed neuroselective waveforms.

3) The Acute Effect of Microcurrent Stimulation on Quadriceps Torque and Power Output. Microamperage current has been reported to exert a "refreshing" effect on exercising muscles. This possibility was investigated by determining the effect of 100 μ A current on the ability of quadriceps muscles to either exert torque or power as compared to subjects who rested for 15 minutes between exercise bouts instead of being "treated" with 100 μ A for 15 minutes.

4) The Effect of Therapeutic Moist Hot Packs on Soft Tissue Temperature in Humans. Collaborator: Keith Hechtman, M.D. (Department of Orthopaedics and Rehabilitation). Moist hot packs are a popular physical therapy treatment before other modalities are applied. This study investigated temperature changes at the skin surface, and at 1, 2, and 3 cm depths of the anterior thigh of normal subjects that had hot moist packs applied for 15 minutes.

IRBs in Progress, 1993-1994

1) Computerized Balance Testing in Patients with Cervical Myelopathy. Collaborator: Mark Brown, M.D., Ph.D., (Chairman, Department of Orthopaedics and Rehabilitation). This is a pilot study to begin investigating possible correlations between clinical findings, magnetic resonance imaging, and computerized balance testing in 10 patients diagnosed as having cervical myelopathy.

2) The Relationship Between Maximum Isometric Torque and Integrated EMG of the Elbow Flexors at Various Angles of the Elbow. The ability of humans to develop torque around a joint is a complex function of the length-tension relationship as well as changing mechanical advantage throughout the range of motion. This study addresses another issue, namely that of "neural drive" at different joint angles as determined by integrated electromyography detected by surface electrodes.

DIVISION OF PHYSICAL THERAPY FACULTY PUBLICATIONS IN 1994

- 1) Fowers BJ, Applegate B, Olson DH, Pomerantz B: Marital conventionalization as a measure of marital satisfaction: A confirmatory factor analysis. *J Fam Psychol*, 8:98-103, 1994.
- 2) Humerickhouse R, Cassety TM, Davis CM: A comparison of endurance as measured by the physiological cost index among elderly people. *Physical & Occupational Therapy in Geriatrics*, 11:35-46, 1994.
- 3) Lindeblad SK: Physical therapy in schools. In (J. S. Tecklin, ed): *Pediatric Physical Therapy*, 2nd Edition, J.B. Lippincott Co, Phila, pp 446-455, 1994.
- 4) Nash MS: Exercise and immunology. *Med Sci Sports Exerc*, 26:125-127, 1994.
- 5) Nash MS: Immune responses to nervous system decentralization and exercise in quadriplegia. *Med Sci Sports Exerc*, 26:164-171, 1994.
- 6) DeLisa JA, Lee HJ, Baran EM, Lai KS, Spielholz N: *Manual of Nerve Conduction Velocity and Clinical Neurophysiology*, 3rd Edition. Raven Press, NY, 1994.

APPENDIX I

PUBLICATIONS BY DIVISION OF PHYSICAL THERAPY FACULTY, JANUARY 1, 1993 TO DECEMBER 31, 1993

- 1) Lahey BB, Hart EL, Pliszka S, Applegate B, McBurnett K: Neurophysiological correlates of conduct disorder: A rationale and review of research. *J Clin Child Psych*, 22:141-153, 1993.
- 2) Montague M, Applegate B: Mathematical problem-solving characteristics of middle school students with learning disabilities. *J Spec Ed*, 27(2):175-201, 1993.
- 3) Montague M, Applegate B: Middle school students' mathematical problem solving: An Analysis of think-aloud protocols. *Learning Disabil Quart*, 16:19-32, 1993.
- 4) Montague M, Applegate B, Marquard K: The effects of cognitive strategy instruction on mathematical problem solving performance of students with learning disabilities. *Learning Disabil Res Pract*, 8:223-232, 1993.
- 5) Curtis KA, Martin T: Perceptions of acute care physical therapy practice issues for Physical Therapist preparation. *Phys Ther*. 73:581-598, 1993.
- 6) Davis CM, Humerickhouse R, Murphy T: A comparison of endurance as measured by the physiological cost index among elderly people. *Physical and Occupational Therapy in Geriatrics*, October, 1993.
- 7) Fiebert IM, Lebowhl NH: Rehabilitation for patients with lumbar spinal stenosis. *Orthop Phys Ther Clinics North Amer*, 2:265-276, 1993.
- 8) Fiebert IM: An overview of functional progressions in the rehabilitation of low back patients. *J Back Musculoskel Rehabil*, 3:36-49, 1993.
- 9) Fiebert IM, Spyropoulos T, Peterman D, Dotson L: Thoracic segmental flexion during cervical forward bending. *J Back Musculoskel Rehabil*, 3:80-85, 1993.
- 10) Gailey RS, Lawrence D, Burditt C, Spyropoulis P, Newell C, Nash MS: The CAT-CAM socket and quadrilateral socket: a comparison of energy cost during ambulation. *Prosth & Orthot Intl*. 17:95-100, 1993.
- 11) Nash MS, Multach M, Banovac K, D'Errico JA, Miller SL, Ledford MR, Kent JW, Klose KJ: Fibrinolytic responses to desmopressin acetate (DDAVP) infusion in exercise-trained and untrained quadriplegics. In, Blank M, (ed) *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, 1993.
- 12) Nash MS, Ledford MR, Kent JW, Green BA: Acute endothelial plasminogen response to electrically stimulated cycling exercise in human quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 717-719, 1993.

- 13 Nash MS, Hughes JR, Green BA: Acute effects of electrically stimulated cycling exercise on oxyhemoglobin affinity in quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 782-784, 1993.
- 14) Nash MS, Spielholz NI: Influence of electrically stimulated cycling exercise on H-reflexes in human quadriplegia. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 785-788, 1993.
- 15) Nash MS, Spielholz NI: The effects of aging and exercise on bone and skeletal muscle. *Orthop Phys Ther Clinics North Amer*, 2: 225-240, 1993.
- 16) Roach KE: The epidemiology of musculoskeletal disorders and their associated disability in the elderly. *Orthop Phys Ther Clinics North Amer*, 2:215-224, 1993.
- 17) Podhorodecki A, Spielholz NI: Electromyographic study of overuse syndromes in sign language interpreters. *Arch Phys Med Rehabil*, 74:261-262, 1993.
- 18) Spielholz NI, Rosenblum JA, Lee MHM, Geisel LC: Unilateral leg pain in a drug-abuser following ipsilateral rhabdomyolysis and peripheral nerve injury. *Am J Pain Management*, 3:57-59, 1993.

ARTICLES/CHAPTERS IN PRESS

- 1) Budiman ME, Roach KE, Stuck R, Spencer F, Palizo T, Conrad KJ: Radiographic measurement of hallux valgus in rheumatoid arthritic foot. *J Rheumatol*.
- 2) Burnham RS, Curtis KA: Shoulder problems in the wheelchair athlete. In (Petroni FA, ed): *The Athlete's Shoulder*, McGraw Hill, Publ.
- 3) Curtis KA: Attributional analysis of interprofessional role conflict. *Soc Sci Med*.
- 4) Fiebert IM, Keller CD: Are "passive" extension exercises really passive? *J Ortho Sports Phys Ther*.
- 5) Fowers BL, Applegate B, Olson DH, Pomerantz B: Marital conventionalization as a measure of marital satisfaction: A confirmatory factor analysis. *J Fam Psychol*.
- 6) Frick PJ, Lahey BB, Applegate B, Kerdyck L, Ollendick T, Hynd GW, Garfinkel B, Greenhill L, Biederman J, Barkley RA, McBurnett K, Newcorn J, Waldman I: DSM-IV field trials for the disruptive and attention deficit disorder: Diagnostic utility of symptoms. *J Am Acad Child Adolesc Psychiat*.
- 7) Hart EL, Lahey BB, Loeber R, Applegate B, Green S, Frick PJ: Developmental change in attention-deficit hyperactivity disorder in boys: A four year longitudinal study. *J Consult Clin Psychol*.
- 8) Lahey BB, Applegate B, Barkley RA, Garfinkel B, McBurnett K, Kerdyck L, Greenhill L, Hynd GW, Frick PJ, Newcorn J, Biederman J, Ollendick T, Hart EL, Perez D, Waldman I,

Shaffer D: DSM-IV field trials for oppositional defiant disorder and conduct disorder in children and adolescents. Am J Psychiat.

- 9) **Nash MS**, Bilsker MS, Hughes J, Kearney HM, Ramirez JN, **Applegate B**, Green BA. Echocardiographically-derived wall motion and cardiodynamic responses to electrical stimulation cycle ergometry and lower extremity passive motion in tetraplegics. Paraplegia.
- 10) Shaw JA, Campo-Bowen AE, **Applegate B**, Perez D, Antoine LB, Hart EL, Lahey BB, Testa R, Devaney A: Young boys who commit serious sexual offenses: Demographics, psychometrics and phenomenology. Am Acad Psychiat Law.
- 11) **Spielholz NI**: Intraoperative monitoring using somatosensory evoked potentials. In (De Lisa J, Mackenzie K, Baran EM, eds): Manual of Nerve Conduction Velocity and Clinical Neurophysiology, 3rd Edition, Raven Press.
- 12) **Spielholz NI**: Intraoperative monitoring of the spinal cord and selected peripheral nerves. In (Dumitru D, ed): Textbook of Electrodiagnostic Medicine.

Names in bold are Division faculty, names underlined were MSPT students

APPENDIX II

DIVISION OF PHYSICAL THERAPY FACULTY SPONSORED SUPPORT:
PENDING OR AWARDED

PROPOSALS PENDING

<u>FACULTY MEMBER</u>	<u>AGENCY</u>	<u>% TIME</u>	<u>TOTAL AWARD</u>
Brooks Applegate	NIMH	5%	\$990,381 (4 yrs)
Brooks Applegate	NIMH	5%	\$461,400 (3 yrs)
Carol Davis (PI)	Culpepper Found.	5%	\$15,000/yr x 3
Kathryn Roach (PI)	FPT ¹	20%	\$26,571 (1 yr)
Kathleen Curtis	FPT ¹	10%	
Brooks Applegate	FPT ¹	5%	
Kathryn Roach	VA	10%	\$47,700/yr x 2
Rose Marie Rine (PI)	DHHS, PHS	15%	\$33,599 (1 yr)
Sue Lindeblad	DHHS, PHS	5%	
Neil I. Spielholz	DHHS, PHS	5%	
Brooks Applegate	DHHS, PHS	2%	
Rose Marie Rine (PI)	FPT ¹	20%	\$52,528 (2 yrs)
Helen Maisin	FPT ¹	10%	
Sue Lindeblad	FPT ¹	5%	
Brooks Applegate	FPT ¹	5%	

GRANTS AWARDED WITHIN LAST YEAR

Brooks Applegate	NIMH	5%	\$358,190 (3 yrs)
Brooks Applegate	DHRS, FL	20%	\$1,873,000 (1 yr)
Carol Davis (PI)	FPTA SRA ²		\$1,000.00
Kathleen Curtis (PI)	PVA ³		\$2,992.00
Kathleen Curtis (PI)	Sunrise Medical		\$9,000.00
Kathryn Roach	DHHS, PHS	5%	\$75,000/yr x 3
Sherrill Hayes (see next page for superscripts)	Private Donor		\$35,000 (5 yrs)

- ¹ = Foundation for Physical Therapy
- ² = Florida Physical Therapy Association Student Research Award
- ³ = Paralyzed Veterans of America

EQUIPMENT DONATIONS WITHIN LAST YEAR TO SUPPORT DIVISIONAL
RESEARCH AND TEACHING

<u>OBTAINED BY</u>	<u>VENDOR</u>	<u>VALUE</u>
Penny Kroll & Neil Spielholz	Isotechnologies B200	\$75,000
Neil I. Spielholz	Verimed Myoexercisor 1000 (EMG Biofeedback)	\$10,195
Neil I. Spielholz	Neurotron Neurometer	\$ 8,500
Neil I. Spielholz	Phyaction 787, Multi- purpose electrical stimulator	\$ 4,995



RECOMMENDATION FOR THE PH.D. IN PHYSICAL THERAPY

This proposal was submitted to the Graduate School in fall 1992, and a special review committee on programs and degrees was appointed to conduct the review because the program overlapped several areas of the standing committees. The Faculty Senate also appointed one member, Dr. Theresa Gesse.

The committee met with Physical Therapy (P.T.) principals prior to the external reviewers' visit and then held a de-briefing session during the visit of the reviewers, Drs. Marilyn Moffat, New York University, and Dr. Jules M. Rothstein, University of Illinois, on October 26 and 27, 1992. Because the reviewers suggested extensive modifications for the proposed curriculum, the P.T. faculty elected to substantially revise the proposal. They requested and were granted a delay in the approval process.

In fall 1993 a revised program proposal was submitted. The sub-committee met on December 7, 1993, discussed the revisions and forwarded questions to the division. At the committee's request, three P.T. principals, Drs. Hayes, Applegate and Spielholz, met with the Committee on January 14, 1994 to discuss the amended proposal. That discussion centered around clarification of the various graduate tracts in the division, the fact that the division operates quite differently from other programs in their department, research money total awarded to P.T. faculty, and the numbers and quality of the students in their current masters' programs.

The sub-committee, following a lengthy discussion with P.T. principals, agreed that the proposal was an excellent one and was now ready to be brought forward to the Graduate Council.

The members agreed with the conclusion of the external reviewers as follows:

This proposal for the development of a PhD degree program in physical therapy is a sound one based upon the multiplicity of strengths within the division, department, and

school. Meetings with currently-enrolled students, graduate students in the advanced master's degree program, and practicing clinicians from area facilities indicated a potential pool of students for the proposed program. This academically and clinically strong faculty, coupled with excellent research facilities, will make this one of the finest doctoral programs in physical therapy in the country.

The committee recommends approval of the Ph.D. program in Physical Therapy.

Members: Dr. Richard Donahue, Epidemiology
Dr. Theresa Gesse, Nursing and Faculty
Senate Representative
Dr. Irene Litosch, Pharmacology
Dr. Myron Rosenthal, Neurology, (and
Physiology and Biophysics)

January 20, 1994

**REPORT TO THE FACULTY SENATE ON A PROPOSAL FOR A PH.D. PROGRAM IN
PHYSICAL THERAPY**

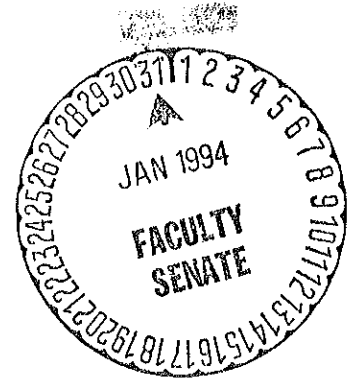
FROM: Faculty Senate Advisory Council
DATE: March 21 (First Reading)
PREPARED BY: Bob Warren, 2nd Vice Chair

This proposal has been reviewed for the Senate by Professor Eugene Roberts (Department of Neurology), Professor Leonard Carrier (1st Vice Chair of the Senate) and myself. We are unanimous in recommending that the Senate approve the proposal.

Physical Therapy is a young division within the Department of Orthopaedics and Rehabilitation at the School of Medicine. As outlined in the included material the Division functions as a relatively independent Department within a Department with the blessing of the Chair of the parent Department. The Division has been quite successful in its endeavors so far, with a thriving Masters program that operates out of space on three floors of the Plumer Building. Recognizing the need for PhDs to fill numerous faculty vacancies in academic institutions around the country they submitted a proposal for a PhD program in 1991/92. The proposal was favorably received by two external reviewers, but because of numerous suggestions in the reviewer's report, the decision was made to revise the proposal before it was submitted to the Graduate Council. The Graduate Council endorsed the Proposal late in 1993. The reports of the external reviewers and the Graduate Council are attached. Professor Sherrill Hayes (Program Director) has prepared a summary of the Proposal along with responses to the suggestions that were made by the reviewers and the Council. A letter of support for the Program from Dr. Mark Brown, Chairman of Orthopaedics and Rehabilitation, completes the packet of material submitted to the Senate.

The need for a PhD program in Physical Therapy appears to be well justified, and the University of Miami should take the opportunity to meet this need. The Division of Physical Therapy does not yet have the years of experience that one would typically expect as the background for a PhD program, but we believe, along with the other reviewers, that their potential has been demonstrated with the success of the Master's program and the extent of the facilities and funding that they now have. The faculty appear to be making good progress towards tenure. Their relations with their parent department are excellent, and, although it might be appropriate to consider the issue of separate departmental status in the future, we do not believe that their lack of departmental status should be a hindrance in initiating the PhD program.

We recommend that the Senate, in approving the Program, also request that the Director return to the Senate in three years with a progress report on the program, with a particular focus on the status of students in the program and the progress of the faculty towards tenure.



MEMORANDUM

January 26, 1994

TO: *Dr. Kamal Yacoub, Chairman
Faculty Senate and Government*

FROM: *Jo Anne K. Hecker, Interim Dean
The Graduate School*


SUBJECT: *Proposal for Physical Therapy Ph.D. Program*

The Graduate Council unanimously approved the proposed Ph.D. program in Physical Therapy at the January 25, 1994 meeting. I am enclosing a copy of the proposal for your action. I am also enclosing a copy of the report submitted by the external reviewers and a report prepared by the Committee on Programs and Degrees.

This review will also serve to validate the existing MSPT program approved three years ago, as the Committee reviewed the credentials of students in that program and found them to be of very high quality.


*JKH:nb
Enclosures
Copy to:*

*Dr. Mark Brown, Chair
Dr. Sherrill Hayes, Director
Department of Physical Therapy
Dr. Robert Rubin, Deputy Dean
School of Medicine*



University of Miami School of Medicine
Department of Orthopaedics & Rehabilitation
Division of Physical Therapy

PROPOSAL
for a
Ph.D. PROGRAM IN PHYSICAL THERAPY



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STATEMENT OF PHILOSOPHY

Physical Therapy is an essential component of health care. Traditionally, our unique contribution has been to help restore optimal levels of independent function following disorders caused by pain, trauma, and/or disease. Over the last two decades, however, the roles and responsibilities of physical therapists have expanded greatly. We are now responsible not only for analyzing why a function has been lost (and, of course, how to best correct it), but therapists also contribute to maintaining function and preventing injury in the "able-bodied" population. These expanding roles and responsibilities require increased knowledge and skills in patient care, research, education, consultation, and administration.

The faculty of the Division of Physical Therapy believes that to better meet these requirements, entry into the profession is best accomplished at the graduate level. In addition, we are committed to providing further quality educational experiences in two other areas, i.e. advanced study to promote professional growth and in the preparation of academic faculty. These 3 programs, our Entry-Level Master's, Advanced Master's, and this proposed PhD curriculum, have structured learning experiences aimed at achieving these goals. Our faculty strives to prepare professionals who will effectively carry out the expanding responsibilities of physical therapists as health care providers practicing independently in prevention, evaluation, acute care, rehabilitation, and out-patient settings, as well as in education, consultative, and research environments.

The faculty recognize and value the importance of a strong background in basic and applied science, and in the humanities. All three curricula, therefore, include integration and expansion of knowledge in these areas as they apply to physical therapy practice. To facilitate the development of attitudes and insights necessary for sustained and continued professional growth, the faculty model professional ethics, critical thinking, therapeutic presence, commitment to research, and tolerance of ambiguity.

A Doctoral program designed to prepare academic faculty, has the obligation to provide not only appropriate knowledge and skills of the profession, but also to professionally socialize faculty to the role of the academic professor. We believe preparation to teach in a physical therapy curriculum must proceed along three complex dimensions: a) knowledge and skill in instructional design, teaching methods, and evaluation; b) knowledge and skill in research methods, design, implementation of analysis and communication of results; and c) socialization to the role of a faculty member, awareness of academic responsibilities, and sensitivity to the needs of the learner. The successful integration of these three dimensions, each complex in its own right, provides the mechanism for a physical therapy faculty member to develop expertise in analyzing, researching, teaching, and testing disorders that interfere with function.

OVERALL GOALS

To effectively meet existing and emerging physical therapy needs, the priorities of this program are to inculcate scientific thinking and analysis, enhance the ability to integrate basic, applied and clinical research into physical therapy, foster a commitment to self-directed life-long learning, and provide professional socialization to the role of academic faculty member. The proposed program is designed to prepare students for leadership positions in academic and clinical settings by helping them develop the ability to:

- a) design, present and evaluate effective instruction in multiple settings for learners with varied needs
- b) form theoretical constructs by integrating findings from basic and applied sciences with clinical observations
- c) perform original research aimed at developing new knowledge to enhance the scientific basis of clinical practice and theoretical principles that will advance the understanding of physical therapy
- d) communicate theories, concepts and research findings
- e) successfully seek funding for research and other academic endeavors
- f) carry out the role and responsibilities of an academic faculty member

1. RATIONALE AND NEED FOR THE PROGRAM

Severe Faculty Shortage: In the United States, there are currently 131 approved entry-level schools of physical therapy, and another 17 that are candidates for accreditation. According to the most recent survey of the American Physical Therapy Association (APTA), the accredited schools employ 731 faculty, of whom 42.8% have doctoral degrees. This last figure represents approximately a 9% increase in doctorally-prepared faculty since the last survey in 1988. Unfortunately, however, 123 faculty positions still remain vacant, 78 of which are in baccalaureate programs. According to prior data, 77.5% of faculty positions in baccalaureate PT programs remain vacant for more than one year, with a 27% vacancy rate in post-baccalaureate programs.⁵ These facts vividly illustrate the need for doctoral programs in physical therapy geared specifically to the development of future faculty members.

General Summary Statement Relating This Proposed Ph.D. Program to the Findings and Recommendations of the Task Force on Post-Entry-Level Doctoral Education of the APTA Board of Directors, November, 1990:

The above document states that the following basic elements must exist within the appropriate academic milieu for the production of high quality graduates of doctoral programs:

1. An appropriate University mission
2. A qualified and productive faculty
3. A critical mass of faculty and students
4. Time for the performance of scholarly activities
5. Necessary physical resources (equipment and space)
6. Functioning laboratories and clinics
7. Designated research focus
8. Exemplary collegiality

9. Subject population available for study

10. Funding

Given these basic requirements, we believe that the Division of Physical Therapy, in the Department of Orthopaedics and Rehabilitation at the University of Miami School of Medicine, possesses all, with the exception of item # 10- "Funding" (but see Appendix II, pages 54-55).

As a relatively new program (the Entry-Level Master's Program has been in existence in the School of Medicine since 1986; the Advanced Master's Program has been in existence since 1989), the faculty are young, fresh, dynamic, and are beginning to be successful in extramural funding arena. A major effort will be undertaken to pursue Training Grants and other sources to fund equipment and research efforts. We have been fortunate to have enjoyed exceptional support from our Department, School, and the institution as a whole, which has enabled us to grow into a faculty now consisting of 15 full-time and 6 part-time members. Of these individuals, 14 possess a doctoral degree (13 Ph.D's, 1 Ed.D.), and 4 more are currently in doctoral programs. Additionally, we have instituted a series of Continuing Education courses (through our School of Continuing Education), both as a way to meet the needs of practitioners within the state of Florida and beyond, for the continuing education hours they require for licensure, and garner additional funds for educational support and program needs.

Another aspect stressed in the Task Force Report was that opportunities exist for doctoral students to interact and collaborate with others within and outside their university, and that students should not be isolated from other doctoral programs. It was our explicit intent to include courses in Higher Education and Educational and Psychological Studies (statistics), to foster this interaction within the curriculum, as well as the continued collaboration between our Department, and other Departments and Colleges within this institution.

With respect to the objective and activities listed in the "Plan for Enhancing Doctoral Education in Physical Therapy" (APTA Board of Directors, November, 1990), the following points should be noted:

1. our current Entry-Level students already work on faculty-generated research projects
2. we have Graduate Teaching and Graduate Research Assistants in our Entry-Level curriculum and envision having doctoral students in these positions for the dual purpose of having experienced teaching assistants in the classroom and allowing them to be mentored in the faculty role with our faculty
3. there is informal mingling with Entry-Level and Advanced Master's students at our Annual Research Colloquium in December, and other functions, such as the Lunch Roundtable
4. we have had a Visiting Professor (Dr. Mary Moffroid, from the University of Vermont) for the last 3 years (December-March, 1991-1993)
5. we have had an on-going Lunch Roundtable on a twice-monthly basis for the exchange of research and scholarly activities by and with faculty and students
6. many of our Entry-Level students express the desire to become a faculty member (6 graduates are already in PhD programs elsewhere)
7. we have envisioned the ability to enroll our Entry-Level students in doctoral programs immediately upon graduation, with the capability of having them gain clinical experience in the Faculty Practice Clinic, adjacent to the Steven J. Rose Center for Clinical Research in our Coral Gables facility
8. we have a long history of involving clinicians as Co-PI's in our clinical research efforts, working along with our academic faculty and Entry-Level students, as well as providing consultation to clinicians on research projects
9. finally, one of our local clinicians (and former faculty member) who has collaborated on several research projects, is eager to begin doctoral studies here.

In summary, we feel that our proposed Program has all the essential elements recommended by the APTA Task Force on Doctoral Education. We believe we have a strong Entry-Level Program foundation on which to build a doctoral program, and an equally strong Advanced Master's Program as a further source of students. We feel that our faculty are strong role models in being active in the

professional association on all levels, as researchers, as educators, as being involved in the community, and that we do emphasize that teaching and research are viable and respected career choices for physical therapists.

Essential Faculty Qualification: Over the years, leaders of the profession have recommended the development of programs that promote essential faculty qualification. Because of the research and educational components of Ph.D. training, doctorally-prepared persons could facilitate the establishment of standards of academic credibility urgently needed for the survival of physical therapy education in institutions of higher learning. The urgency of this need is succinctly summarized in the final report of the APTA Task Force on Faculty Shortage:⁶

"A sufficient number of doctorally prepared people with strong research backgrounds is not available to increase the body of knowledge in physical therapy, to meet the standards for academic credibility of institutions of higher education, and to educate the entry-level practitioner of the future."⁶

Also, the fact that nationwide, 28% of the full-time faculty have published three or less articles based on their own research, while 45% have never published at all,⁶ underscores the pressing need for physical therapy Ph.D. programs. By contrast, between January 1, 1993 and December 31, 1993, 8 members of our faculty had 18 publications in the professional literature, with another 12 articles/chapters in press (Appendix I). In 1992, these numbers were 18 publications by 9 faculty members.

Paucity of Ph.D. Programs In Physical Therapy: Currently, there are only ten physical therapy doctoral programs in the country, eight of which award the Ph.D. degree, one the Ed.D or the Ph.D. degree, and the other awards the D.Sc. degree.⁶ Seventy-five physical therapy doctoral students are enrolled in these programs. Of these candidates, only 29 are enrolled on a full-time basis. Given the

larger number of part-time students, and the relatively low yearly rate of graduation, there is little prospect that existing programs can meet current and future needs.

Annually, about 20 physical therapists earn Ph.D.s nation-wide.⁷ A major limitation to training more Ph.D.s is the lack of adequate resources - laboratories, faculty, space, etc. These limiting factors have already been surmounted at the University of Miami. **At present not only is there no physical therapy Ph.D. program in the state of Florida, there are no physical therapy PhD programs in the entire southeastern United States.** Therefore, our proposed program is designed not only to add ultimately to the available doctorally-trained physical therapy faculty pool, but will also provide Floridians an opportunity to pursue a terminal degree in physical therapy within their own state.

Local Need For The Program: Over the last few years, our entry-level master's program has continued to attract highly talented young men and women who are not only prepared to undertake the professional training, but eager to pursue a doctoral degree. Via student feedback at graduation, we have determined that more than 10% of the 45-65 students in each graduating class express a strong desire for a Ph.D. program that could prepare them for positions in higher education. Therefore, an assured pool of candidates will be available from this source alone.

(a) Exact Title of The Degree

Doctor of Philosophy

(b) Purpose and Goals of the Degree

To effectively meet existing and emerging physical therapy needs, the priorities of this program are to inculcate scientific thinking and analysis, enhance the ability to integrate basic, applied and clinical research in physical therapy, foster a commitment to self-directed life-long learning, and

provide professional socialization to the role of academic faculty member. The proposed program is designed to prepare students for leadership positions in academic and clinical settings as described under "Overall Goals" on page 7.

(c) Demand And Job Market:

- (i) At present there is a critical shortage of doctorally-prepared physical therapists in institutions of higher learning (see the section on "Rationale And Need For The Program"). Many faculty positions remain unfilled for more than a year mainly because qualified applicants are scarce. Compounding this vacancy problem in existing physical therapy education programs is the continued proliferation of new, developing programs in physical therapy. The 17 programs awaiting accreditation mentioned previously are not accounted for in the statement of faculty shortage which only addressed accredited programs. And in addition to these, another 17 institutions are embarking upon the accreditation process (in "Candidacy" stage). The faculty shortage will become even more acute in the near future.
- (ii) As previously stated, there are few Ph.D. programs in the U.S. and none in the southeastern U.S. These few programs are insufficient to meet the existing needs for doctorally prepared faculty and researchers in the profession of physical therapy. (see the section on "Paucity of Ph.D. programs in Physical Therapy" on page 6).
- (iii) Not only does the profession of physical therapy desperately need Ph.D.- trained individuals to assume faculty and research roles, students in our entry-level master's degree program show an interest in pursuing doctoral education.
- (iv) The acute shortage of faculty and adequately trained individuals capable of research has been identified by the National Institutes of Health (NIH) task force on Medical

Rehabilitation Research. Their June 1990 report states that:

"The need for scientific research in rehabilitation medicine is pressing.... The demand for experienced independent investigators in rehabilitation research is so great and the supply so limited that vacant faculty positions may remain unfilled for several years.... the most severe obstacle to increasing the supply of qualified scientists in the field has been that, [unlike] other biomedical and non-biomedical disciplines, pathways to research careers in rehabilitation medicine are virtually nonexistent."⁸

The proposed program addresses this need since one of our major goals is to train physical therapists to perform original research that will advance the knowledge base of physical therapy.

- (v) Recent data indicate that the demand for physical therapists exceeds supply by over 7,500 positions.⁹ This number of open positions is expected to rise as 2,300 additional unfilled positions are added annually.⁹ U.S. Department of Labor, Bureau of Labor Statistics, projects that jobs for physical therapists are expected to increase 57% by the year 2000, creating 39,000 new positions.¹⁰ The shortage is so great that physical therapy is listed on Schedule A of the Department of Labor as an "occupation for which the Administrator, United States Employment Service, has determined that there are not sufficient US workers who are able, willing, qualified, and available...." to provide service.¹¹ A major limitation to training of more physical therapists is the relatively limited number of qualified individuals available to fill existing and projected faculty positions nation-wide. As indicated earlier, although about 20 physical therapists earn doctoral degrees annually, they do not all enter physical therapy faculty positions.⁷ The need for this program (and others like it), is quite pressing.

(d) Interdisciplinary And Cooperative Work

1) Departments of Industrial Engineering and Biomedical Engineering

Since the core area of this doctoral program is in pathobiology and measurement of human function, and since objective measurements of human movement now rely heavily on modern technology, it is vital that doctorally-prepared physical therapists understand, and are conversant with, the scientific principles underlying mechanical and electrical instrumentation. To achieve this goal, arrangements have been made with the Departments of Industrial Engineering and Biomedical Engineering (see letters attached) to obtain their assistance in teaching PTS 620, "Instrumental Analysis of Human Function I". This course is an overview of measurement tools available for evaluation and research (see Bulletin Description for further details), and leads to PTS 621, "Instrumental Analysis of Human Function II", where students are given the opportunity to use various instruments. In addition, should students require more in-depth knowledge in a particular area, these Departments will allow them to take, as electives, the courses specified on pages 64-65 (see also letters from Drs. Asfour and Tarjan).

2) Department of Orthopaedics and Rehabilitation

Members of this Department will assist in teaching components the course PTS 622, "Pathobiology of Human Function I". Specifically, they will lecture in the areas of tendons, ligaments, cartilage, and other connective tissues in health and disease; also on bone pathology, including osteoporosis, osteoarthritis, fractures, scoliosis, etc.

In addition to these didactic endeavors, cooperative studies of a clinical nature are being planned. For example, various physicians at Doctor's Hospital in Coral Gables (a satellite of Jackson Memorial Hospital), and members of our faculty (Drs. Neil I. Spielholz, Penny Kroll, and Rose Marie Rine), are developing a protocol to study proprioceptive deficits in patients with anterior cruciate deficient knees and patients with chronic ankle sprains. Dr. Kathryn Roach has been working with Dr. Mark Brown,

Chairman of the Department, in an epidemiological study concerning low back pain. We anticipate that such cooperative studies will continue to expand in the future, providing our students with a richness of clinically-oriented research opportunities (see letter from Dr. Mark Brown).

3) Department of Medicine

To also assist in teaching PTS 622, "Pathobiology of Human Function I", Martin S. Bilsker, M.D., Chief of the Echocardiography Laboratory at Jackson Memorial Medical Center, will lecture on the detection of cardiac pathology and its impact on human function (see attached letter).

One member of our faculty, Mark Nash, Ph.D., has already collaborated with Dr. Bilsker on a number of research projects and grant proposals. These have all related to the consequences of exercise on cardiac function in persons with spinal cord injury. See Dr. Nash's CV for the publications which have resulted from these cooperative efforts.

4) Department of Neurology

Members of this Department will assist in teaching PTS 623, "Pathobiology of Human Function II" (see attached letter). This course is related mainly to neurological disorders, both central and peripheral.

Collaborative studies are already underway with certain members of this Department. Specifically, Dr. Rose Marie Rine has been working with Dr. Carlos Singer in studying balance problems in patients with Parkinson's Disease; Dr. Kathryn Roach has assisted Dr. Walter Bradley in the preparation of a research grant studying the effects of growth hormone in the elderly; and Sue Emerson is performing certain functional measures in a funded study of Dr. Bradley's investigating patients with amyotrophic lateral sclerosis.

(e) Teaching

Pedagogy will be conducted via classroom teaching, research mentorship, independent studies,

tutorials and seminars. It is estimated that about 60% of learning will take place in the classroom.

(f) Relationship To Undergraduate And Professional Programs

To accommodate the various educational backgrounds of physical therapists in the United States, and to complement the existing 2 Masters degree programs at the University of Miami, this Ph.D Program offers 3 lines of training leading to the degree (Figure on page 21).

(i) Applicants With Baccalaureates or Certificates in Physical Therapy

Applicants with Bachelor's degrees or Certificates in physical therapy, awarded from APTA-approved institutions, will be eligible for admission into this program. These students will be required to complete the equivalent of our Advanced Master's of Science (M.S.) Degree in physical therapy minus 3 credits for research (a minimum of 33 credits), before admission into the Ph.D. Program. Students who elect to stop their training at this point, will take another 3 credits of research and be awarded the Advanced Master's Degree. Students who wish to continue with the doctorate, once accepted for candidacy, will require at least another 35 credits for graduation.

(ii) Applicants With Advanced Master's Degrees

Candidates who already have an Advanced Master's Degree in Physical Therapy, awarded either from the University of Miami or other accredited institution, will be required to complete a minimum of 32 credits to earn the Ph.D. degree. The 3 credit differential between these students and those described in (i) above reflects these students having completed an extra 3 credits of research for their Advanced Master's Degree. Our Advanced Master's Program differs substantially from our Entry Level Master's Program in that it is offered as a specialty track in a specific area (orthopaedics, sports physical therapy, or geriatrics) for practicing physical therapists who desire advanced knowledge beyond baccalaureate entry level education. Due to the clinical emphasis, this may be considered a terminal degree for clinicians with a specialty area of practice, and who are not in an academic or educational setting.

At present, 15 individuals are matriculated in our Advanced Master's Program, which is offered

in the evenings, on a part time basis. Average GRE scores for these students are:

Verbal- 510

Quantitative- 520

Analytical- 540

(iii) Applicants With Entry-level Master's Degrees

Applicants with Entry-Level Master's Degrees in Physical Therapy, who meet all other mandated eligibility requirements, must complete a minimum of another 56 credits for graduation with the Ph.D. At the University of Miami, our Entry-Level Master's Program is our premier program and the strength which drives our major academic endeavors. It is recognized nationally as a "flagship" program by leaders in the professional organization (American Physical Therapy Association) and other academic programs. Our students are extremely bright, dynamic, and intelligent young men and women who come from all over the US and several foreign countries. Due to our strong emphasis on research, there is some "self-selection" of our students who prefer an accent on research, compared to other programs without this emphasis. Entrance to our school is highly competitive, with a ratio of applicants to acceptances of nearly 8:1. Last year there were over 450 applicants for 60 positions in the class which entered in May, 1993. This year, we have 500+ applicants. The mean GRE scores for this most recent entering class (May, 1993) are as follows:

Verbal- 560

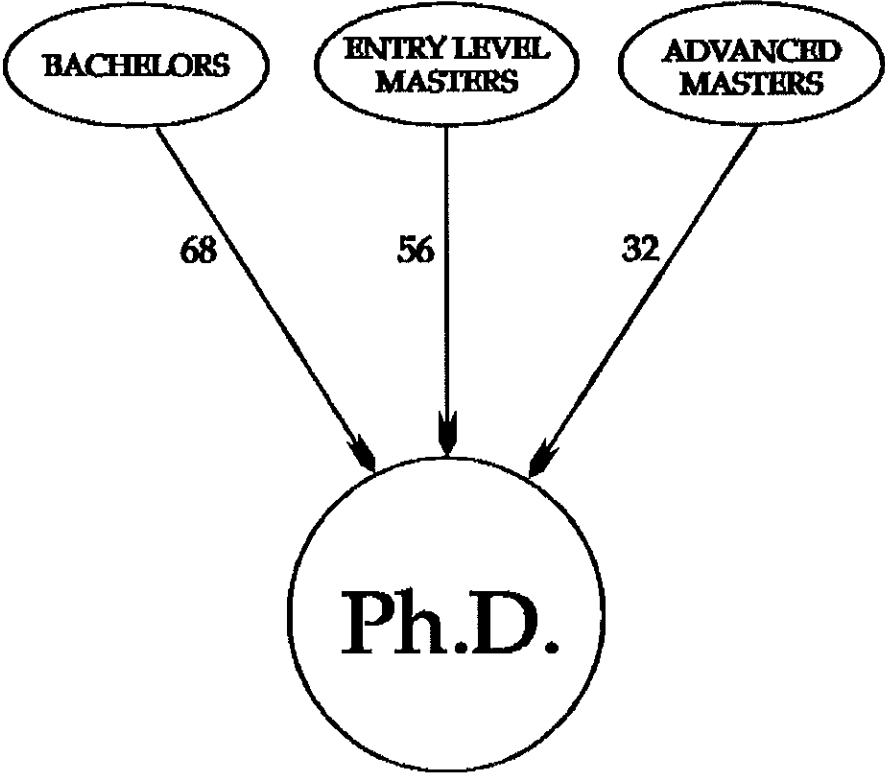
Quantitative- 640

Analytical- 650.

As demonstrated above, these are strong students for any graduate program of study. Many of these students express an interest in continuing for a doctoral degree, with the desire to teach and do research. Several of our graduates are already in PhD programs elsewhere, and many are teaching, either part-time or full-time. Please remember also that in December of 1993 we just graduated only our 6th

class of entry level master's students (since 1988).

Minimum Required Credits for the Ph.D. in Physical Therapy at the University of Miami



2. PHYSICAL RESOURCES

(a) Library Resources

Students in this program will have available to them the resources of the University's 2 major libraries. These are the Calder Library on the Medical Campus, and the Richter Library on the Main Campus. In addition, the Division of Physical Therapy has its own small library on the 3rd floor of the Plumer Building.

(b) Laboratory Facilities: The Steven J. Rose Center for Clinical Research

Teaching and research laboratory facilities within the Division of Physical Therapy include the 5,000 square foot Steven J. Rose Center for Clinical Research (SJRCCR). This area consists of 3 rooms, one a Motion Analysis Laboratory under the direction of Rose Marie Rine, Ph.D., P.T.; the second a Cardio-pulmonary Laboratory, co-directed by Mark Nash, Ph.D., and Linda Crane, M.S., P.T.; and the third a Kinesiology (Back Testing) Laboratory, directed by Penny Kroll, Ph.D., P.T. Some pieces of equipment are shared by the different laboratories.

Motion Analysis Laboratory

This is the largest of the three. It contains a 40 foot walkway accessible to a 2-D Motion Analysis Unit. This system, with its attendant video cameras, computer consoles, etc., can record subjects performing a variety of possible movements.

Also housed in this room is a Neurocom Balance Master, a computerized balance testing device. This unit performs standing sway measures as well as determining how accurately an individual performs a variety of tracking movements. It is also capable of measuring stability while various perturbations are imposed on the individual, such as when the platform and/or the visual surround moves. Dr. Rine, the laboratory director, has been performing clinical and research studies with both these units for a number

of years.

Cardio-Pulmonary Laboratory

This space houses the following equipment:

- a) LIDO Isokinetic Device
- b) Stairmaster with Ergometer and Pulse Check
- c) Monarch Ergometer 818E Exercise Bicycle
- d) Tunturi Exercise Bicycle
- e) DR AirEx Exercise Bicycle
- f) Nordick Track Achiever
- g) SensorMedics MMC Horizon Systems Exercise Monitor
- h) TrackMaster Motorized Treadmill
- i) Fikuda-Denshi EKG Telemetry Unit

Moreover, other laboratories such as the Motion Analysis Laboratory at Miami Children's Hospital (already the site of several collaborative studies with our faculty and ELM students) and the Motion Analysis Laboratory of the Department of Industrial Engineering could serve as additional resources.

(c) Computer Facilities

In addition to the PCs, MACs, and mainframe terminals available in the Division, students also have access to other University computer facilities, such as those present in the Ungar Microcomputer Lab, residential halls, and the university's two main libraries.

(d) Space

There is adequate space to house all aspects of the proposed program. The Division of Physical Therapy occupies well over 25,000 square ft of space dedicated to teaching and research plus an additional 2,500 square ft dedicated to clinical practice and clinical teaching.

3. CURRICULUM

(a) Major Division In Which Graduate Work Will Be Offered

Division of Physical Therapy, Department of Orthopaedics and Rehabilitation, University of Miami School of Medicine.

(b) Areas of Concentration

All students will be required to take a core of physical therapy courses relating to pathobiology and measurement of human function. In addition, they will be required to select a concentration of courses and undertake a dissertation in an area that relates to physical therapy. During the first year of study the student will present an approved plan of study including elective courses and their chosen area of concentration.

(c) Course Descriptions

See Appendix III.

(d) Plans of Study for Students With Different Prerequisite Backgrounds

1. Those students entering with a Baccalaureate degree for completion of the PhD:

Core Physical Therapy Courses

PTS 620 Instrumental Analysis of Human Motion I	3
PTS 621 Instrumental Analysis of Human Motion II	1-3
PTS 622 Pathobiology of Human Motion I	3
PTS 660 Theories of Movement Science	3
PTS 690 Physical Therapy Diagnosis	3
	13-15 credits

Core Education Courses

PTS 674 Educational Administration in PT	3
PTS 677 Instructional Methods in Physical Therapy	3
PTS 678 Teaching Practicum	3
PTS 701-703 Doctoral Seminar in Physical Therapy	3
	12 credits

Core Research Courses

PTS 695 Clinical Research Methods I	3
PTS 696 Applied Statistics in Physical Therapy	3
PTS 697 Clinical Research Methods II	3
PTS 698 Research Practicum	3
Three credits of elective out of Division	3
	15 credits

Electives in area of concentration 15-21 credits

Examples:

PTS 623 Pathobiology II
PTS 661 Motor Learning
Electives in Higher Education
Electives in Biomedical Engineering
Electives in Industrial Engineering
Electives in Research Methods/Statistics
Electives in Orthopaedic, Sports, or Geriatric Physical Therapy
Independent Study in Physical Therapy

PTS 730 Doctoral Dissertation 12 credits

Total credits: 68-75

2. Those students entering with a Baccalaureate degree in Physical Therapy for completion of the Advanced Master of Science in Physical Therapy:

Core Physical Therapy Courses

PTS 622 Pathobiology I	3
PTS 620 Instrumental Analysis I	3
PTS 690 Physical Therapy Diagnosis	3
PTS 677 Instructional Methods in PT Education	
or	
PTS 675 Staff Development & Clinical Ed. in PT	3
	12 credits

Core Research Courses

PTS 695 Clinical Research Methods I	3
PTS 696 Applied Statistics in Physical Therapy	3
PTS 697 Clinical Research Methods II	3
PTS 698 Research Practicum/Project	6
	15 credits

Electives in Higher Education or
Advanced PT Clinical Areas, such as 9 credits

Orthopaedic PT Track (3 credits each)

PTS 630 Orthopaedics IV
PTS 631 Orthopaedics V
PTS 632 Seminar in Orthopaedic Physical Therapy

Sports PT Track (3 credits each)

PTS 636 Sports Injuries in the Lower Quarter
PTS 637 Sports Injuries in the Upper Quarter
PTS 633 Seminar in Sports Physical Therapy

Geriatric PT Track (3 credits each)

PTS 640 Care of the Well and Ill Elderly
PTS 643 Primary Diseases of the Elderly and their Treatment
PTS 641 Seminar in Geriatric Rehabilitation

Total credits: 36

3. Those students entering with an Entry-level Master's degree in physical therapy from the University of Miami will take all coursework listed for the PhD, except they will be given credit for:

PTS 695 Clinical Research Methods I	3
PTS 696 Applied Statistics in Physical Therapy	3
PTS 698 Research Practicum/Project	3-6
Total credits needed	56-63

4. Those students entering with a Master of Science degree from another institution will be treated individually. Their transcripts will be evaluated for coursework taken that may be credited toward the PhD according to rules established by the Graduate School regarding transfer credits.

5. Example plan of study for student entering with a Baccalaureate degree in Physical Therapy.

<p>Fall 94</p> <p>620 Inst Anal I 695 Res Meth I 696 Applied Stats 674 Ed Admin in PT <u>701 PhD Semin</u> 13 credits</p>	<p>Spring 95</p> <p>621 Inst Anal II 697 Res Meth II 677 Inst Meth 660 Th Mvmt Sci <u>702 PhD Semin</u> 11-13 credits</p>	<p>Fall 95</p> <p>622 Pathobio I 690 PT Diag *Stats elec 698 Res <u>703 PhD Semin</u> 13 credits</p>
<p>Spring 96</p> <p>*623 Pathobio II *661 Motor Lrning *Elective *Elective <u>678 Teaching Prac</u> 11-13 credits</p>	<p>Fall 96</p> <p>730 Diss *Elective 678 Teaching Prac <hr/> 7 credits</p>	<p>Spring 97</p> <p>730 Diss *Elective 678 Teh <hr/> 7 credits</p>
<p>Summer 97</p> <p><u>730 Diss</u> 3 credits</p>		

* = non-core courses

NOTE: 1) Certain core/elective courses will be offered on alternating years. For example, students entering in the Fall of 1994 (an even-numbered year) will take Instrumental Analysis I. Instrumental Analysis II will be given the immediately-following Spring (an odd-numbered year). In the Fall of 1995, when our second class enters, all students will take Pathobiology I (resulting in a larger class size). The following Fall (again an even-numbered year), the students who took Pathobiology I will take Instrumental Analysis I along with the students who just entered the program. In this way, except for the initial class, the Instrumental Analysis sequence and the Pathobiology sequence will have about 10 students enrolled. Similarly, PT Diagnosis will be offered the same Fall term as Pathobiology of Human Function.

2) Although only one Summer Session is indicated above, students will have the opportunity to pursue course work during any of the summer sessions. These courses may include electives, independent study/research, etc, as determined by the student and mentor.

(e) **Program Summary: Overview**

I) Core Courses in Physical Therapy	13-15
II) Core Courses in Education	12
III) Core Courses in Statistics/Research Methods	15
IV) Electives	15-21
V) Doctoral Dissertation	12
TOTAL	68-75

(f) How to Get an MS Degree Out of the PhD Program

This option is available for two reasons. One would be for students who, though academically capable of continuing, elect not to for some reason. The second would be for students who desire an MS degree for career reasons. For the MS to be awarded under these circumstances, the following must be satisfied:

- i) successful completion of 36 hours with a cumulative GPA ≥ 3.00 , which includes successful completion of 6 hours Research Practicum
- ii) preparation, execution, and dissemination of a research project done in conjunction with the Research Practicum hours

(g) Potential Distribution of Graduate Students Among Advisors

Given an annual enrollment of 6-10 students* (excluding the first year), a three to four year turnover period, and 8 graduate faculty in the division of physical therapy, a maximum student:advisor ratio of 5:1 is anticipated.

* Part-time study is envisioned as an option in the Program, with clinicians pursuing the PhD degree while continuing to practice full-time.

(h) Special Seminars, Conferences & Colloquia

Currently, the Division of Physical Therapy conducts a monthly seminar called "Lunch Round-Table". This is a semi-formal gathering similar to a Journal Club or clinical Research Seminar. It provides a unique opportunity for students, faculty, clinicians, and invited guest lecturers to interact. An important goal is to promote an exchange of ideas and facilitate the consolidation of developing thoughts which otherwise may linger in the mind and be forgotten.

In addition to active participation in the round-table, students enrolled in the proposed program have the opportunity to participate/present at the weekly Orthopaedics Grand Rounds organized by the Department of Orthopaedics & Rehabilitation, attend and/or present papers at scheduled meetings of the local Southeast District, Florida Physical Therapy Association, the annual meetings of Florida Physical Therapy Association, and the annual conferences of the American Physical Therapy Association. Furthermore, all students in the graduate program will participate with sponsoring faculty members in meetings of other relevant organizations, such as the American Congress of Rehabilitation Medicine, the American Spinal Injuries Association, or the American College of Sports Medicine. Students will also be encouraged to participate in the myriad of seminars and workshops organized by other academic and clinical units of the university.

4. FACULTY

(a) Curriculum Vitae

The curriculum vitae of the following Core Program faculty are presented in Appendix IV.

Core Ph.D. Program Faculty

E. Brooks Applegate, Ph.D.*

Kathleen A. Curtis, Ph.D., P.T.*

Carol M. Davis, Ed.D., P.T. (tenured)*

Ira Fiebert, Ph.D., P.T.*

Sherrill H. Hayes, Ph.D., P.T.*

Penny Kroll, Ph.D., P.T.

Mark S. Nash, Ph.D.*

Rose Marie Rine, Ph.D., P.T.

Kathryn Roach, Ph.D., P.T.*

Neil I. Spielholz, Ph.D., P.T.*

Other Available Departmental Faculty

Mark D. Brown, M.D., Ph.D.

Keith Hechtman, M.D.

Loren Latta, Ph.D.*

Mark Sinrich, M.D.

John Uribe, M.D.

* = Member of Graduate Faculty

Division of Physical Therapy Faculty

E. Brooks Applegate, Ph.D.

Linda Crane, M.M.Sc., P.T.

Kathleen Curtis, Ph.D., P.T.

Carol Davis, Ed.D., P.T. (tenured)

Sue Emerson (Part-time Faculty), P.T.

Ira Fiebert, Ph.D., P.T.

Edelle C. Field (Part-time Faculty), Ph.C., P.T.

Robert Gailey, Jr., M.S.Ed., P.T.

Sherrill H. Hayes, Ph.D., P.T.

Laurie Hughes-Haston, M.S., P.T.

Penny Kroll, Ph.D., P.T.

Sue Lindeblad, M.S., P.T.

Helen Masin (Part-time Faculty), Ph.D., P.T.

Mark Nash, Ph.D.

Craig Pahl (Part-time Faculty), P.T.

Rose Marie Rine, Ph.D., P.T.

Kathryn Roach, Ph.D., P.T.

Charlotte Silver, M.Ed., P.T.

Neil I. Spielholz, Ph.D., P.T.

Michael Voight (Part-time Faculty), M.Ed., P.T.

Phillip R. Waggoner (Part-time Faculty), Ph.D., P.T.

Major Research Emphasis

Research methodology

Cardio-pulmonary

Disabled athletes/Education

Geriatrics/Communication/Education

Neurorehabilitation

Spine rehabilitation

Neuroscience/Ergonomics

Amputees/Prosthetics/Orthotics

Acute care/Neuropath./Educ. Admin.

Traumatic brain injury/Education

Pathokinesiology/Injury prevention

Pediatric rehab/Clinical education

Pediatric rehabilitation

Exercise physiology/spinal cord injury

Administration

Neurorehabilitation/motion analysis

Geriatric rehabilitation/epidemiology

Acute care/Clinical education

Electrophysiology

Sports physical therapy

Anatomy

(d) Need For Additional Faculty

Our current faculty, which consists of 15 full-time and 6 part-time faculty, are adequate for initial start-up.

(e) Dissertation Committee (Interaction With Other Graduate Programs)

Each student's dissertation committee will consist of five or more graduate faculty members. One member must be a faculty of another graduate program within the university.

5. STUDENTS

(a) **Estimated Pool of Student Applicants**

Based on the facts that approximately 10% of the 60 - 65 students admitted into our entry-level master's students express interest in pursuing a Ph.D., and that other qualified individuals periodically inquire about the availability of a Ph.D. program within the Division of Physical Therapy, it is estimated that an assured pool of 10-15 applicants will be considered for admission into the program annually. Furthermore, other suitably qualified students will be sought and recruited from throughout the United States. Thus, in addition to the assured pool of applicants from our existing Entry-level and Advanced Master's Programs, applicants from other schools will be considered for admission into the program.

(b) **Numbers and Categories of Students to be Admitted Yearly**

This program will be open to both full-time and part-time students. Assuming that 5 will be admitted yearly, 2-3 will be full-time, depending upon our budgetary constraints and their financial requirements.

(c) **Admission & Retention Requirements**

Admission Requirements: The applicant must meet all the general admission requirements of the University of Miami Graduate School. Additionally, specific admission requirements include:

- * As indicated earlier, at minimum, an applicant must have either a Bachelor's degree in Physical Therapy or a Certificate in Physical Therapy from an APTA-approved school. These students would be required to complete the equivalent of our Advanced Master's Degree in Physical Therapy before final admission into the Ph.D. Program. Students will be eligible for direct entry into the Program if they a) have an entry-level Master's

Degree in Physical Therapy, or b) an Advanced Master's Degree in Physical Therapy, or c) a Bachelor's Degree in Physical Therapy plus an M.S. or its equivalent in other fields of study.

- * A minimum of three letters of recommendation.
- * A minimum GRE Verbal, Quantitative and Analytical score of 1500.
- * Eligibility for licensure as a physical therapist in the state of Florida.
- * A letter indicating career goals and objectives.

Retention Requirements: Students must take at least 9 credit hours per year, maintain at least a 3.0 GPA in order to remain in the Ph.D. program, and complete the program within seven years. Following completion of all required course work and comprehensive examination, a student may take 2 credit hours of dissertation per year and remain in the Program; however, the program must still be completed within the seven year time frame.

(d) Teaching/Research Assistants

To ensure a rich academic experience, 2 full-time students enrolled in the proposed program will be employed as Teaching and/or Research Assistants. Thus, the number of such teaching/research assistants will depend on the number of full-time students admitted into the program and available funding. Assuming that 2-3 of the 5 students admitted yearly will be on a full-time basis, and that each will be given a \$15,000.00 stipend for teaching/research assistantship, \$30,000.00 will be needed for these individuals during the 2nd, and \$60,000.00 during the third (based on the assumption that only part-time students would begin in the first year of the program). Educational training grant monies will be sought for these and additional assistantships. As the Division currently supports 3-6 Adjunct Instructors per year for Lab Assistants to full-time faculty, the

doctoral student's role is seen as a unique opportunity to fulfill Divisional and student goals by meeting our need for lab assistants, and mentoring future faculty members through teaching in our curriculum.

6. ADMINISTRATION

The proposed program will be administered by the Division of Physical Therapy, Department of Orthopaedics and Rehabilitation as illustrated in Appendix V.

(a) Administrative Increments Imposed By The Program

- (i) For administrative convenience, Dr. Neil Spielholz, Associate Director for Research, will be appointed Associate Director for Graduate Studies to oversee the day-to-day affairs of the Ph.D. and the Advanced Master's programs. Dr. Spielholz will also chair the Graduate Studies Committee of the Division. Because the new program will impose additional responsibilities on the Associate Director for Research and Graduate Studies, an existing secretary from support personnel will be re-allocated to assist both Dr. Spielholz and the Associate Director for Curriculum (Entry-level) with administrative, clerical and secretarial issues.
- (ii) **Additional Office Equipment & Supplies:** Currently, the Division of Physical Therapy has a wide range of office equipment and supplies, including desk top computers, printers and office cabinets. It is anticipated that this existing infrastructure will meet most additional office requirements imposed by the new program.
- (iii) **Additional Travel, Publication Costs, & Other Funds:** Minimal additional travel, publication and other expenses are anticipated. The Division of Physical Therapy will absorb most additional travel and publication costs as grants are sought to support these and other additional costs imposed by the program.

(b) Academic Direction of the Program

The administrative structure of the program is illustrated in Appendix IV.

(i) **Day-To-Day Administration of The Program:** The Associate Director for Graduate Studies will oversee the day-to-day affairs of the program and report directly to the Director, Division of Physical Therapy.

(ii) **Academic Policy Making Mechanism:**

The Committee on Graduate Studies will serve as the academic policy-making body for the Ph.D. program. This committee will be chaired by the Associate Director for Research and Graduate Studies. Members of this Committee will include the Division Chairperson and two graduate faculty members in the Division of Physical Therapy, to be elected by the core program faculty for a four year term. When necessary, policies approved by the committee will be forwarded to the Chairman, Department of Orthopaedics and Rehabilitation, for ratification.

The general responsibilities of this committee will be to :

- (1) Appoint an Admissions sub-committee
- (2) Appoint a Supervisory Committee for students admitted to the Ph.D. program
- (3) Appoint a subcommittee of 4-5 members of the core faculty to schedule and monitor the doctoral curriculum
- (4) Nominate Dissertation Committees
- (5) Schedule, administer and secure scoring for all doctoral comprehensive qualifying examinations

Written comprehensive qualifying examinations will be scheduled as necessary in the Spring and Fall of each year, to coincide with a student's completion of required course work. The content of these examinations will include, but is not limited to core and elective coursework. Policies governing these comprehensive examinations will be consistent with those specified in the Graduate Studies Bulletin of the University of

Miami.

c. Relationship of the Department and the Division

The Division of Physical Therapy exists as an autonomous entity within the Department of Orthopaedics and Rehabilitation. Since our move from the School of Education to the School of Medicine in the Department of Orthopaedics in the summer of 1986, the Division has operated essentially as a "Department within a Department", in that we maintain our own budget, our own physical space (in the Plumer Building, Coral Gables campus), our own faculty (although their academic appointments are in the Department of Orthopaedics). While the mission of the Department of Orthopaedics and Rehabilitation is primarily clinical, followed by research and education, the mission of the Division of Physical Therapy is education, followed by research and clinical (with clinical being a negligible percent in terms of faculty load and involvement). The revenues of the Division of Physical Therapy are generated exclusively through tuition monies from its enrolled students (165 full-time students, 15 part-time students, at present). In the case of the Department, the revenues generated are almost exclusively due to clinical services performed by the physicians in the Department. Furthermore, there is no shared space, faculty duties, or revenues between the Department and the Division. (There are, of course, collaborative research endeavors and physicians lecture to our students, but no shared monies. There is also shared research equipment in the form of a microscope and microtome, owned by the Division but used by the Department. See letter from Dr. Mark Brown, Chairman, in Letters of Support.)

d. Uniqueness of the Division in the Department

In addition to the above factors, as an **academic unit**, the Division maintains its own classrooms and research space, conducts its own interviews and admissions for potential students, registers its own students, follows its own curriculum, has its own committees, and conducts its own graduation in December (operating like a "school" in these cases). Therefore, although we are formally a Division within a Department, we operate and function as an individual Department within the Graduate School. While this is a somewhat unique arrangement in this university, it has not been a hinderance to our growth and development since our inception in the School of Medicine. The last 9 years in the School of Medicine have been a period of tremendous growth and refinement; in short, the relationship between the Department and the Division has been a mutually beneficial alliance for all concerned.

e. Direction of the Division

The Division has its own Director, Dr. Sherrill H. Hayes, who has been in the position since the Fall of 1985 (through the transition from the School of Education to the School of Medicine). As Director of the academic programs (the 2 Master's Programs of study and the proposed PhD), Dr. Hayes oversees the academic direction of the curriculums, the Associate Directors (Dr. Davis and Dr. Spielholz), a total of 15 FT faculty and 6 PT faculty, 15-20 Adjunct Instructors (lab instructors, guest lecturers, visiting professors on a recurring basis each year), 8 support personnel, and 35 graduate assistants. In terms of the academic unit, Dr. Hayes serves for all intents and purposes as an academic Chair of a Department. Within the functioning of the Medical School, Dr. Hayes reports to Dr. Mark

Brown, the Chair of the Department of Orthopaedics and Rehabilitation, in which the Division is located.

7. COMPARISON OF THE PROGRAM TO OTHER EXISTING PROGRAMS

The program outlined in this proposal differs from other physical therapy Ph.D. programs in both focus and content. This program is designed to actively socialize the doctoral student to the instructional, research and associated responsibilities of the faculty role. We provide basic tools of research in the analysis of human function but also require that students develop competence in teaching, student advising and faculty service responsibilities.

Our program is unique because it is the first designed to insure the uninterrupted transition from entry level education in physical therapy through doctoral studies. The transition for entry level master's students and advanced master's students is facilitated by maximizing course overlap and by including research courses and practical experiences in the requirements for the doctoral program.

The entry-level Master's (ELM) graduate will have completed 12 credits, and the advanced Master's graduate will have completed 36 credits, which are transferable to doctoral degree requirements.

Additionally, as described on page 30, if the doctoral student is unable to complete the Ph.D. degree or wishes to attain a Master's degree before completion of the doctoral degree requirements, he or she may apply the completed early requirements of the doctoral program toward an M.S. degree.

The admission requirements for this program are the same as those of other Ph.D. programs at the University of Miami and other doctoral programs in physical therapy. The total number of credit hours required to complete the proposed program, the dissertation requirements, and the anticipated overall academic rigor, are comparable to those of other physical therapy programs (see Table 1, page 45).

In comparison to other existing doctoral programs at the University of Miami, the program

standards parallel those required by the University which require 60 credit hours of graduate coursework beyond the Bachelor's degree and at least 12 credit hours of original research leading to the doctoral dissertation. The proposed program requires a total of 68-75 credit hours, 12 of which are devoted to dissertation research.

The faculty, available physical resources, proposed administrative plan, and the quality of the students envisaged, are comparable to those of other Ph.D. programs in physical therapy and other doctoral programs offered at the University of Miami.

Table 1: Comparison of The Curriculum to Other Existing Ph.D. Curricula

Academic Requirements	Program					
	1	2	3	4	5	6
Minimum number of credit hours required	60	60	60	60	66	56
Dissertation Cr. Hrs.	12	12	12	12	12	12
Required Core Courses	21-25	31*	32*	34**	34**	37

Program 1 = Ph.D. in Physical Therapy, University of Iowa, Iowa City , IA

Program 2 = Ph.D. in Physical Therapy, Texas Woman's University, Houston, TX

Program 3 = Ph.D. in Physical Therapy, University of Southern California, Los Angeles, CA

Program 4 = Ph.D. in Physical Therapy, Hahnemann University, Philadelphia, PA

Program 5 = Ph.D. in Physical Therapy, New York University, New York, NY

Program 6 = Ph.D. in Physical Therapy, University of Miami School of Medicine, Miami, FL

*Includes Doctoral dissertation and two statistics courses

** Not available

8. BUDGET

Three year Budget (1994-97)

EXPENSES:

Personnel

	94-95	95-96	96-97
One Associate Director	12,000	12,000	12,000
(10% salary differential - Administrative)			
Graduate Assistantships:			
PT @ \$5,000.	10,000(2)	20,000(4)	30,000(6)
FT @ 15,000.	--	30,000(2)	60,000(4)
Tuition Remission (FT students only @ 24 credits - To be divided Fall/Spring or Fall/Spring/Summer semesters)		30,720(2)	61,440(4)
Totals:	22,000	92,720	163,440

Capital Equipment

EMG Machine	40,000*	--	--
Total	62,000	92,720	163,440

PROJECTED INCOME:

PT Tuition (12 credits/student x 4)	30,720		
FT Tuition # (24 credits/student x 2)		30,720	
PT Tuition (12 credits/student x 4)		30,720	
FT Tuition # (24 credits/student x 4)			61,440
PT Tuition (12 credits/student x 8)			61,440
Total	30,720	61,440	122,880

REVENUES AND COST:

Year 1 (1994-95)	30,720 - 62,00	= -31,280
Year 2 (1995-96)	61,440 - 92,720	= -31,280
Year 3 (1996-97)	122,880 - 163,440	= -40,560

* See next page for justification

Tuition remission at 9 credits/Fall & Spring semesters + 6 credits Summer session, or 12 credits each Fall/Spring semesters; assumption of students taking 2 summer courses or additional loads in Fall or Spring

Justification for Noraxon Telemetry EMG System:

Electromyography (EMG) is a multi-purpose technique. Although perhaps best known for its use in diagnosing nerve and muscle disorders, EMG is also a powerful "basic science" tool, especially in the realms of kinesiology and neuro-muscular physiology. Although originally employed in kinesiology simply as an indicator of when muscles "fired" during some activity, the development of computerized systems and associated software have expanded the versatility and analytical capabilities of this technique. The electrical activity generated by muscles can now be quantified in terms of integrated EMG (IEMG), firing frequencies of motor units, recruitment frequencies of motor units, and Fourier analysis of the power spectrum of the recruitment patterns, to name a few. The latter, i.e. spectral analysis of recruitment patterns, is increasingly being used as an index of muscle fatigue, which has many clinical implications as well. Added to all this, is the ability to transmit these signals via telemetry so that subjects can move freely through space (such as during ambulation) without being "tethered" by electrode wires to the EMG machine.

Since a major focus of our PhD program is to develop researchers expert in the study and analysis of human motion, the application of kinesiological EMG to these endeavors is vital to us. The technique is useful both as a teaching tool for kinesiology and neuromuscular physiology, as well as for research into these areas.

Six members of our faculty have their specific requirements for it. Dr. Spielholz, with over thirty years experience in using and teaching EMG, has designed a series of basic kinesiological studies exploring synergistic activities of certain muscle groups about the shoulder. He is also planning an EMG study of muscle fatigue in individuals with and without chronic low back pain (in conjunction with Ira Feibert, Ph.D., P.T., and Mark Brown, M.D., Ph.D., Professor and Chairman of Orthopaedics and Rehabilitation).

Dr. Roach's research concerns the impact of joint pathology on movement in the elderly. Her

use of the system will be to study how lower extremity muscles function during various ambulation activities, such as sit-to-stand, stand-to-sit, and ascending and descending stairs. These patterns in asymptomatic elderly individuals will ultimately be compared to patients with osteoarthritis of the hip and/or knee.

Dr. Curtis is known internationally for her work with wheelchair athletes. Her initial use of the system will be to compare firing patterns of shoulder-girdle muscles during the wheelchair push-stroke in wheelchair-users with and without overuse syndromes. In addition, she plans to study postural control in relation to athletic performance in competitors with different levels of spinal cord injury.

Dr. Rine has two major uses for the EMG system. First, she is engaged in a study of balance and equilibrium using the Neurocom Balance Master. This is a computerized system for tracking the center of gravity while a patient stands and can be used for testing and/or training under a variety of conditions. The position of the center of gravity, however, is an end-point; it does not tell how the patient achieved that final position. To gain more insight into this, Professor Rine plans to expand on these mechanical studies by using the EMG system to simultaneously monitor a number of muscles in the lower extremities of control subjects and patients with balance difficulties. This addition should yield further insights into how patients differ neuromuscularly from people without these problems. Professor Rine's second use of the system is in her work with the Motion Analysis Gait Trak. The Noraxon system can interface with the Gait Trak so that simultaneous recordings of motion and EMG of up to 8 muscles can be obtained. The telemetry capabilities are an obvious benefit of the Noraxon system in this regard.

Dr. Kroll's expertise is in kinetics and kinematics of human motion, and in posture. By combining EMG recordings with the motion analysis system already in place, muscular activity associated with motion can be detected and analyzed. Dr. Kroll has experience with these techniques

from her work at the Orthopaedic Institute in New York City where she performed her doctoral dissertation research. Furthermore, since Dr. Kroll also teaches kinesiology to the PT students, she will use the EMG system to introduce students to the theory and technique of electromyographic recordings.

Mr. Gailey has been involved with amputees, amputee gait training, prosthetics, and disabled athletes since the mid-1980s. His use of the telemetry system will be concerned with studying muscle firing patterns and synergies during amputee gait with different types of prostheses. The purpose of these studies will be to determine approximation of normal as well as comparing efficiency of ambulation.

This new equipment therefore, will be used for both research and teaching purposes. It is necessary because no EMG capability is available to us at this time. Acquiring this system therefore, will permit us not only to expand into this area, but since the system chosen can be interfaced with the Motion Analysis Gait Trak and Neurocom Balance Master that are already being used by members of the Division, it will appreciably upgrade the utility of these two devices, as well.

Furthermore, we foresee a number of possible collaborative studies, such as with members of the:

- a) Department of Orthopaedics and Rehabilitation (Drs. Mark Brown and Carol Vandenakker)
- b) Division of Human Performance and Exercise Science (Drs. Arlette Perry and Joseph Signorelli)
- c) Department of Anatomy (Dr. Phillip Waggoner)
- d) Departments of Industrial Engineering and Biomedical Engineering (Drs. S. Asfour and P. Tarjan).

It is obvious therefore, that the acquisition of this system will go a long way to fulfill the overall goals of this PhD program.

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2. Fact sheet, Department of Education, Alexandria, VA, American Physical Therapy Association, 1986
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4. Transition to post-baccalaureate entry-level degree in physical therapy education: Academic Administrator's survey, 1984. Alexandria, VA, American Physical Therapy Association, 1985
5. Current Faculty Vacancies. Alexandria, VA, American Physical Therapy Association, 1990
6. Final report of the Task Force on faculty shortage in physical therapy education: The plan to address the faculty shortage in physical therapy education. Alexandria, VA, American Physical Therapy Association, 1985
7. Doctoral Awards Committee Report for the Foundation for Physical Therapy, 1990/91.
8. Report of the task force on Medical Rehabilitation Research. Bethesda, MD, NIH, 1990, pp 123-136
9. Occupational outlook of physical therapy. Alexandria, VA, American Physical Therapy Association, May, 1990
10. Physical therapy among fastest growing fields. Miami Herald, Business Monday, September 23, 1991, p.30
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APPENDIX I

PUBLICATIONS BY DIVISION OF PHYSICAL THERAPY FACULTY, JANUARY 1, 1993 TO DECEMBER 31, 1993

- 1) Lahey BB, Hart EL, Pliszka S, **Applegate B**, McBurnett K: Neurophysiological correlates of conduct disorder: A rationale and review of research. *J Clin Child Psych*, 22:141-153, 1993.
- 2) Montague M, **Applegate B**: Mathematical problem-solving characteristics of middle school students with learning disabilities. *J Spec Ed*, 27(2):175-201, 1993.
- 3) Montague M, **Applegate B**: Middle school students' mathematical problem solving: An Analysis of think-aloud protocols. *Learning Disabil Quart*, 16:19-32, 1993.
- 4) Montague M, **Applegate B**, Marquard K: The effects of cognitive strategy instruction on mathematical problem solving performance of students with learning disabilities. *Learning Disabil Res Pract*, 8:223-232, 1993.
- 5) **Curtis KA**, Martin T: Perceptions of acute care physical therapy practice issues for Physical Therapist preparation. *Phys Ther*. 73:581-598, 1993.
- 6) **Davis CM**, Humerickhouse R, Murphy T: A comparison of endurance as measured by the physiological cost index among elderly people. *Physical and Occupational Therapy in Geriatrics*, October, 1993.
- 7) **Fiebert IM**, Lebowhl NH: Rehabilitation for patients with lumbar spinal stenosis. *Orthop Phys Ther Clinics North Amer*, 2:265-276, 1993.
- 8) **Fiebert IM**: An overview of functional progressions in the rehabilitation of low back patients. *J Back Musculoskel Rehabil*, 3:36-49, 1993.
- 9) **Fiebert IM**, Spyropoulos T, Peterman D, Dotson L: Thoracic segmental flexion during cervical forward bending. *J Back Musculoskel Rehabil*, 3:80-85, 1993.
- 10) **Gailey RS**, Lawrence D, Burditt C, Spyropoulis P, Newell C, **Nash MS**: The CAT-CAM socket and quadrilateral socket: a comparison of energy cost during ambulation. *Prosth & Orthot Intl*. 17:95-100, 1993.
- 11) **Nash MS**, Multach M, Banovac K, D'Errico JA, Miller SL, Ledford MR, Kent JW, Klose KJ: Fibrinolytic responses to desmopressin acetate (DDAVP) infusion in exercise-trained and untrained quadriplegics. In, Blank M, (ed) *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, 1993.
- 12) **Nash MS**, Ledford MR, Kent JW, Green BA: Acute endothelial plasminogen response to electrically stimulated cycling exercise in human quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 717-719, 1993.

- 13) Nash MS, Hughes JR, Green BA: Acute effects of electrically stimulated cycling exercise on oxyhemoglobin affinity in quadriplegics. In, Blank M (ed), *Electricity and Magnetism in Biology and Medicine*. San Francisco Press, San Francisco, pp. 782-784, 1993.
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- 15) Nash MS, Spielholz NI: The effects of aging and exercise on bone and skeletal muscle. *Orthop Phys Ther Clinics North Amer*, 2: 225-240, 1993.
- 16) Roach KE: The epidemiology of musculoskeletal disorders and their associated disability in the elderly. *Orthop Phys Ther Clinics North Amer*, 2:215-224, 1993.
- 17) Podhorodecki A, Spielholz NI: Electromyographic study of overuse syndromes in sign language interpreters. *Arch Phys Med Rehabil*, 74:261-262, 1993.
- 18) Spielholz NI, Rosenblum JA, Lee MHM, Geisel LC: Unilateral leg pain in a drug-abuser following ipsilateral rhabdomyolysis and peripheral nerve injury. *Am J Pain Management*, 3:57-59, 1993.

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- 2) Burnham RS, Curtis KA: Shoulder problems in the wheelchair athlete. In (Petroni FA, ed): *The Athlete's Shoulder*, McGraw Hill, Publ.
- 3) Curtis KA: Attributional analysis of interprofessional role conflict. *Soc Sci Med*.
- 4) Fiebert IM, Keller CD: Are "passive" extension exercises really passive? *J Ortho Sports Phys Ther*.
- 5) Fowers BL, Applegate B, Olson DH, Pomerantz B: Marital conventionalization as a measure of marital satisfaction: A confirmatory factor analysis. *J Fam Psychol*.
- 6) Frick PJ, Lahey BB, Applegate B, Kerdyck L, Ollendick T, Hynd GW, Garfinkel B, Greenhill L, Biederman J, Barkley RA, McBurnett K, Newcorn J, Waldman I: DSM-IV field trials for the disruptive and attention deficit disorder: Diagnostic utility of symptoms. *J Am Acad Child Adolesc Psychiat*.
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Shaffer D: DSM-IV field trials for oppositional defiant disorder and conduct disorder in children and adolescents. Am J Psychiat.

- 9) **Nash MS**, **Bilsker MS**, **Hughes J**, **Kearney HM**, **Ramirez JN**, **Applegate B**, **Green BA**. Echocardiographically-derived wall motion and cardiodynamic responses to electrical stimulation cycle ergometry and lower extremity passive motion in tetraplegics. Paraplegia.
- 10) **Shaw JA**, **Campo-Bowen AE**, **Applegate B**, **Perez D**, **Antoine LB**, **Hart EL**, **Lahey BB**, **Testa R**, **Devaney A**: Young boys who commit serious sexual offenses: Demographics, psychometrics and phenomenology. Am Acad Psychiat Law.
- 11) **Spielholz NI**: Intraoperative monitoring using somatosensory evoked potentials. In (De Lisa J, Mackenzie K, Baran EM, eds): Manual of Nerve Conduction Velocity and Clinical Neurophysiology, 3rd Edition, Raven Press.
- 12) **Spielholz NI**: Intraoperative monitoring of the spinal cord and selected peripheral nerves. In (Dumitru D, ed): Textbook of Electrodiagnostic Medicine.

Names in **bold** are Division faculty, names underlined were MSPT students

APPENDIX II

**DIVISION OF PHYSICAL THERAPY FACULTY SPONSORED SUPPORT:
PENDING OR AWARDED**

PROPOSALS PENDING

<u>FACULTY MEMBER</u>	<u>AGENCY</u>	<u>% TIME</u>	<u>TOTAL AWARD</u>
Brooks Applegate	NIMH	5%	\$990,381 (4 yrs)
Brooks Applegate	NIMH	5%	\$461,400 (3 yrs)
Carol Davis (PI)	Culpepper Found.	5%	\$15,000/yr x 3
Kathryn Roach (PI)	FPT ¹	20%	\$26,571 (1 yr)
Kathleen Curtis	FPT ¹	10%	
Brooks Applegate	FPT ¹	5%	
Kathryn Roach	VA	10%	\$47,700/yr x 2
Rose Marie Rine (PI)	DHHS, PHS	15%	\$33,599 (1 yr)
Sue Lindeblad	DHHS, PHS	5%	
Neil I. Spielholz	DHHS, PHS	5%	
Brooks Applegate	DHHS, PHS	2%	
Rose Marie Rine (PI)	FPT ¹	20%	\$52,528 (2 yrs)
Helen Maisin	FPT ¹	10%	
Sue Lindeblad	FPT ¹	5%	
Brooks Applegate	FPT ¹	5%	

GRANTS AWARDED WITHIN LAST YEAR

Brooks Applegate	NIMH	5%	\$358,190 (3 yrs)
Brooks Applegate	DHRS, FL	20%	\$1,873,000 (1 yr)
Carol Davis (PI)	FPTA SRA ²		\$1,000.00
Kathleen Curtis (PI)	PVA ³		\$2,992.00
Kathleen Curtis (PI)	Sunrise Medical		\$9,000.00
Kathryn Roach	DHHS, PHS	5%	\$75,000/yr x 3
Sherrill Hayes (see next page for superscripts)	Private Donor		\$35,000 (5 yrs)

- ¹ = Foundation for Physical Therapy
- ² = Florida Physical Therapy Association Student Research Award
- ³ = Paralyzed Veterans of America

EQUIPMENT DONATIONS WITHIN LAST YEAR TO SUPPORT DIVISIONAL
RESEARCH AND TEACHING

<u>OBTAINED BY</u>	<u>VENDOR</u>	<u>VALUE</u>
Penny Kroll & Neil Spielholz	Isotechnologies B200	\$75,000
Neil I. Spielholz	Verimed Myoexercisor 1000 (EMG Biofeedback)	\$10,195
Neil I. Spielholz	Neurotron Neurometer	\$ 8,500
Neil I. Spielholz	Phyaction 787, Multi- purpose electrical stimulator	\$ 4,995

APPENDIX III

COURSE DESCRIPTIONS

REQUIRED COURSES

NUMBER: PTS 620 3 credits

TITLE: Instrumental Analyses of Human Function I

Prerequisites: Overview of measurement tools available for evaluation and research.

Bulletin Description: Requirements of human-machine interface, including mechanical and electrical components used in physical therapy measurement. Limitations of instrumentation and relevant research.

Faculty Member: Neil I. Spielholz, PhD, PT (course coordinator)

NUMBER: PTS 621 3 credits

TITLE: Instrumental Analyses of Human Function II

Prerequisites:

Bulletin Description: In depth presentation and practicum on instrumental analyses of human motion balance, strength, electrophysiological responses, and cardiorespiratory function. Students will be required to conduct a preliminary study, including design, methodology and data collection.

Faculty Member: Neil I. Spielholz, PhD, PT (course coordinator)

NUMBER: PTS 622 3 credits

TITLE: Pathobiology of Human Function I

Prerequisites:

Bulletin Description: The biology of processes which impair human function. Emphasis is on (1) skeletal and cardiac muscle pathology, including congenital myopathies; (2) pathophysiology of skin, tendons, ligaments, cartilage; (3) bone pathology, including osteoporosis, osteoarthritis, fracture non-union, etc, and (4) pathophysiology of cardiorespiratory function. Throughout, emphasis is placed on the effects of these processes on human function.

Faculty Member: Neil I. Spielholz, PhD, PT, Mark S. Nash, Ph.D., (course coordinators)

NUMBER: PTS 660 3 Credits

TITLE: Theories of Movement Science

Prerequisites:

Bulletin Description: An in-depth review of classic theories and recent research in the movement sciences, to include study and analysis of systems theory and neurobiological substrates. The course is provided in both lecture and seminar format. Emphasis is placed on relating theoretical constructs to the selection of appropriate measures to study and analyze motor control.

Faculty Member: Rose Marie Rine, PhD, PT

NUMBER: PTS 690 3 credits

TITLE: Physical Therapy Diagnosis

Prerequisites:

Bulletin Description: The learning experience will provide students with the didactic knowledge and practical skill for making clinical diagnoses. The learning experience will emphasize the 1) relationship between classification, taxonomy, and the clinical diagnosis; 2) role of clinical trials in validating clinical diagnoses, and 3) making clinical diagnoses on actual, "paper and pencil", or video-taped patients.

Faculty Member: Carol Davis, EdD, PT (course coordinator)

NUMBER: PTS 701 1 credit

TITLE: Doctoral Seminar I

Prerequisites:

Bulletin Description: Introduction to faculty role in an institution of higher education, including academic career expectations, resource utilization, faculty development, and evaluation systems. Current research on health professions, faculty role socialization, productivity and career patterns.

Faculty Member: Kathleen A. Curtis, PhD, PT

NUMBER: PTS 702 1 credit

TITLE: Doctoral Seminar II

Prerequisites:

Bulletin Description: Leadership training, networking, time management and coping strategies. Effective delegation and use of assistive personnel in the academic role. Student advising, counseling, and referral strategies.

Faculty Member: Kathleen A. Curtis, PhD, PT

NUMBER: PTS 703 1 credit

TITLE: Doctoral Seminar III

Prerequisites:

Bulletin Description: Initiation of research career, dynamics of research role development within an institution. Grant writing, funding sources, and proposal considerations. Development and management of multi-institutional and collaborative projects.

Faculty Member: Kathleen A. Curtis, PhD, PT

Number PTS 695 3 credits

TITLE: Clinical Research Methods I

Prerequisites: Concurrent enrollment in PTS 696

Bulletin Description: A broad overview of measurement and sampling issues pertaining to clinical research in Physical Therapy. Topics covered will include measurement scales, scaling, reliability, validity, internal consistency, generalizability, sensitivity and specificity, internal and external validity, questionnaire design, sampling frames, sampling techniques and bias.

FACULTY MEMBER: Kathryn E. Roach, PhD, PT

Number PTS 696 3 credits

TITLE: Applied Statistics in Physical Therapy

Prerequisites: Concurrent enrollment in PTS695

Bulletin Description: A course covering descriptive statistics, hypothesis testing, estimation, confidence intervals, rates and proportions, chi-square, correlation, Student's t-test, simple ANOVA, Cohen's Kappa, ICC and simple linear regression. All topics will be taught from an applied perspective which will include statistical computing using SAS in a mainframe environment and interpretation of SAS output.

FACULTY MEMBER: Brooks Applegate, PhD

Number PTS 697 3 credits

TITLE: Clinical Research Methods II

Prerequisites: PTS695, PTS696, or permission of instructor

Bulletin Description: A course focusing on issues in research design and analysis pertaining to clinical research in Physical Therapy. Design topics covered will include random assignment, confounding, factorial and repeated measures experimental designs, quasi-experimental cross-sectional and correlational designs, analytic epidemiologic designs. Analytic topics covered will include repeated measures ANOVA, factorial ANOVA, ANCOVA, relative risk, odds ratio, stratified analysis, multiple and logistic regression. Analysis will be taught from an applied perspective which will include statistical computing using SAS in a mainframe environment and interpretation of SAS output.

FACULTY MEMBER: Brooks Applegate, PhD and Kathryn E. Roach, PhD, PT

NUMBER: PTS 698 3 credit

TITLE: Research Practicum

Prerequisites:

Bulletin Description: Practicum designed to familiarize the student with an area of research, to implement a pilot study in an area of interest and to develop working relationship with a sponsoring faculty member. May be repeated.

Faculty Member: Division of Physical Therapy Faculty

NUMBER: PTS 674 3 credits

TITLE: Educational Administration in Physical Therapy

Prerequisites:

Bulletin Description: Review of history and current issues in educational administration of physical therapy programs at the entry-level and post-graduate level. Curriculum design, published requirements for entry-level physical therapy curriculum. Marketing and serving the non-traditional student. Faculty development, faculty role socialization and faculty evaluation methods. Leadership, negotiation, resource management, planning and budgeting in higher education. Inclusion of the physical therapy program in the university community.

Faculty Member: Sherrill H. Hayes, Ph.D., P.T.

NUMBER: PTS 677 3 credits

TITLE: Instructional Methods In Physical Therapy Education

Prerequisites: Admission to the PhD program.

Bulletin Description: Overview of research in the professional education field, with specific applications to physical therapy academic and clinical education. Emphasis on curriculum development, competency-based instructional design, testing, and instructional evaluation methods.

Faculty Member: Kathleen A. Curtis, PhD, PT

NUMBER: PTS 678 1-3 credits

TITLE: Teaching Practicum

Prerequisites:

Bulletin Description: Supervised instructional design, teaching and evaluation of entry level physical therapy students. Students will participate as course instructors in entry-level master's degree physical therapy curriculum.

Faculty Members: Carol Davis, EdD, PT; Kathleen A. Curtis, PhD, PT

NUMBER: PTS 730 12 credits

TITLE: Doctoral Dissertation

Prerequisites:

Bulletin Description: Required of all candidates. The student will enroll for credits as determined by his/her advisor, but not for less than a total of 12. No more than 6 hours may be

taken in a regular semester, nor more than 3 hours in a summer session. When a student has passed his/her qualifying exams and is engaged in an Assistantship, he/she may still take the maximum allowable credit stated above.

Faculty Member: TBA

ELECTIVE COURSES WITHIN DIVISION OF PHYSICAL THERAPY

NUMBER: PTS 623 **1-3 credits**

TITLE: Pathobiology of Human Function II

Prerequisites:

Bulletin Description: Pathological processes which impair human function with an emphasis on (1) pain (acute and chronic); (2) diseases of the peripheral and central nervous systems; (3) neurological disorders associated with ageing, and (4) acquired myopathies.

Faculty Member: Neil I. Spielholz, PhD, PT (course coordinator)

NUMBER: PTS 661 **3 credits**

TITLE: Motor Learning

Prerequisites:

Bulletin Description: The factors relating to, and affecting, the acquisition and performance of motor skills are studied, to include the review and analysis of recent research findings. Quantification of skill acquisition and performance are explored. Course is in lecture and seminar format.

Faculty Member: Rose Marie Rine, PhD, PT

NUMBER: PTS 679 **3 credits**

TITLE: Professional Development in the Rehabilitation Fields

Prerequisites: Admission to the PhD Program

Bulletin Description: Survey of current research on professional development and applications to health care fields, including models of novice-expert cognitions, clinical specialty certification and clinical decision-making. Models of career development explored in relation to problems (short-staffing, high turnover and limited advancement opportunities) within rehabilitation fields. Planning and evaluation of staff development activities, supervisory and management training programs. Continuing

education program development, planning and implementation.

FACULTY MEMBER: Kathleen A. Curtis, PhD, PT

NUMBER: PTS 683 **3 credits**

TITLE: Skeletal Muscle: Morphology and Physiology in Use, Disuse, and Development

Bulletin Description: The course presents an overview of skeletal muscle structure and function with specific attention to the following topics: control of muscle contraction and fatigue by the nervous and endocrine systems; influences of disuse and therapeutic exercise on muscle structure, physiology, and performance; changes in connective tissue which accompany strengthening; current theories on muscle soreness and effects of stretching on muscle performance; acute and chronic effects of electrical stimulation on skeletal muscle, and unique alterations in muscle structure and function following strengthening in the young and elderly.

Faculty Member: Mark S. Nash, PhD

NUMBER: PTS 684 **3 credits**

TITLE: Therapeutic Aspects of Cardiorespiratory Exercise Testing and Training

Prerequisites:

Bulletin Description: The course presents an overview of the physiology of exercise with emphasis on fuel and metabolic homeostasis, acute pulmonary and cardiovascular responses to exercise, and chronic adaptation of the cardiopulmonary and circulatory systems to exercise training. The metabolic responses to work will be presented both in theory and in the laboratory setting stressing the cardiovascular, pressor, and ventilatory responses of healthy individuals to graded and steady-state work. The pathophysiology and special exercise challenges of patients with ischemic heart disease, diabetes mellitus, spinal cord injury, and the aged will be detailed. Strategies for testing and training of these patients in the contemporary therapy practice will be discussed including prescriptive methods for designing cardiorespiratory exercise programs with emphasis on indications, contraindications, risks, benefit, and special exercise considerations.

Faculty Member: Mark S. Nash, PhD

NUMBER: PTS 640 **3 credits**

TITLE: Care of the Well and Ill Elderly

This course examines the rehabilitation needs of the well and ill elderly. Methods of evaluation and screening of healthy and disabled persons is featured along with interdisciplinary treatment approaches. Emphasis is placed on the necessity of interdisciplinarity and the importance of team members understanding and valuing each other's roles.

NUMBER: PTS 671 3 credits

TITLE: Seminars in Communications and Group Process

Prerequisites:

Bulletin Description: This course features an experiential approach to developing effective communication skills and group process skills for health care professionals. Assertiveness training, conflict resolution, team building, and interviewing skills are featured.

Faculty Member: Carol Davis, EdD, PT

NUMBER: PTS 672 3 credits

TITLE: The Physical Therapist as Consultant

Bulletin Description: The process of consultation is described and analyzed. The various ways that physical therapists act as consultants are examined in depth in order to prepare practitioners to serve as change agents in patients, with well citizens (fitness and prevention), with families in various settings, such as schools and industry.

Faculty Member: Carol Davis, EdD, PT; Kathleen Curtis, PhD, PT

NUMBER: PTS 699 1-3 credits

TITLE: Independent Study in Physical Therapy

Prerequisites: Permission of directing faculty member and Department Chairman.

Bulletin Description: Individual work on a special project under faculty guidance. May be repeated.

Faculty Members: Division of Physical Therapy Faculty

ELECTIVE COURSES WITHIN DIVISION OF INDUSTRIAL ENGINEERING

NUMBER: 612 **3 credits**

TITLE: Design of Experiments

Bulletin Description: Design and analysis of experiments; randomized blocks, Latin Squares, factorials; multiple correlation and regression, and its response to surfaces.

NUMBER: 657 **3 credits**

TITLE: Ergonomics and Occupational Biomechanics

Bulletin Description: Effects of human factors in the improvement of performance of systems. Human capacities, capabilities and limitations as derived from anatomical, physiological, and psychological principals applied to the design of tools and equipment. Incorporation of all factors into systems design to achieve better system performance.

NUMBER: 659 **3 credits**

TITLE: Work Physiology

Bulletin Description: Physiological responses to occupational work including aspects of endurance, fatigue, recovery, and the energy cost of work. Application of work physiology to job design and personnel assignment.

ELECTIVE COURSES WITHIN DIVISION OF BIOMEDICAL ENGINEERING

NUMBER: G511 3 credits

TITLE: Clinical Engineering

Bulletin Description: Clinical engineering concepts, medical instrumentation and systems, patient safety, requirements and regulations for medical devices, hospital organization and accreditation requirements, and related topics.

NUMBER: G580 3 credits

TITLE: Biomedical Instrumentation

Bulletin Description: Analysis and design of systems and electronic circuitry in medical and biological instrumentation. Treatment of bioelectric potentials, electrodes, transducers, high gain-low noise input circuits, timing and switching circuits, biotelemetry, bioelectrodes, and bioelectric systems.

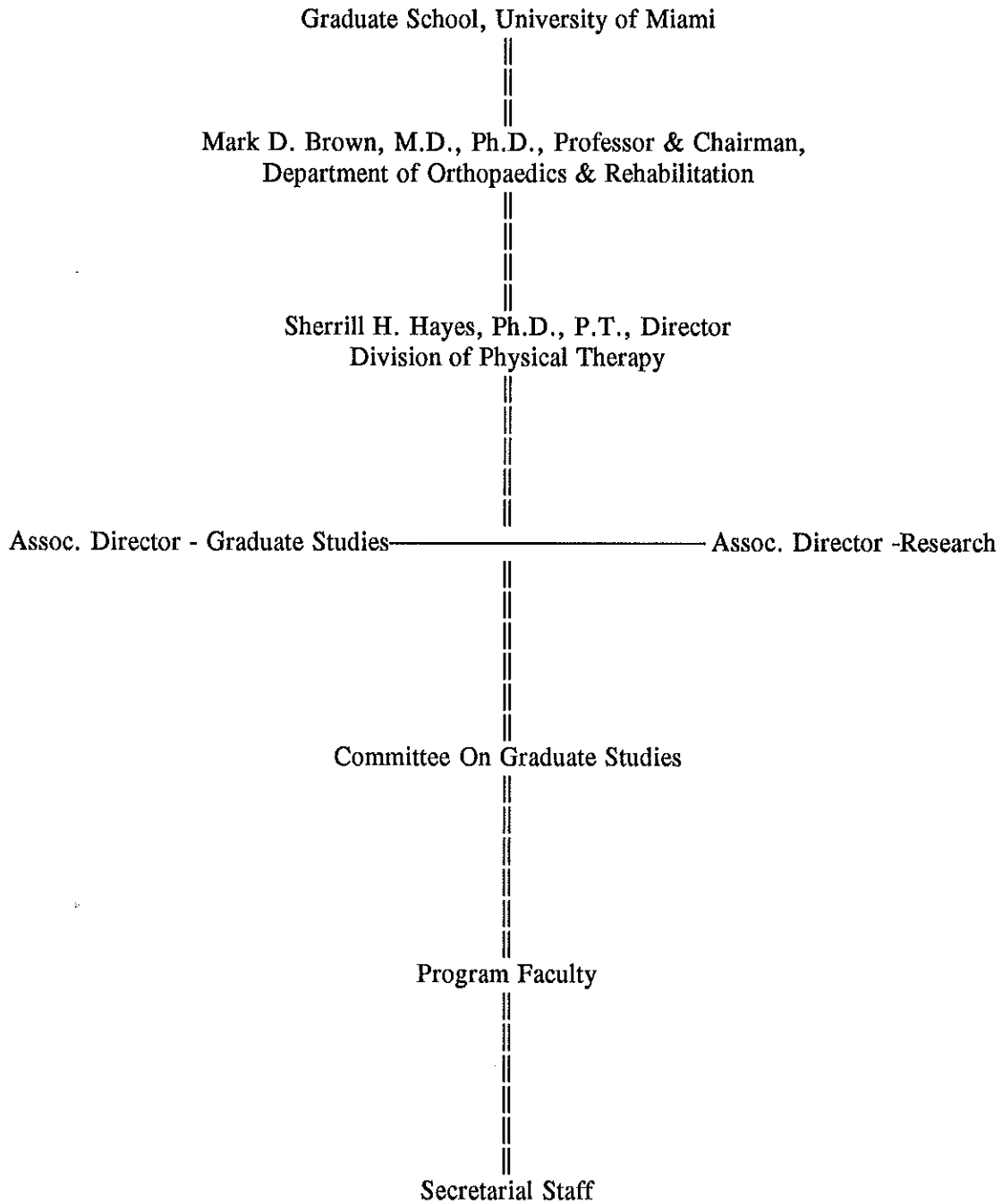
NUMBER: 622 3 credits

TITLE: Biomedical Signal Processing

Bulletin Description: Applications of the digital signal processing techniques to biomedical signals originating from cardiovascular, respiratory, neural, sensory, and motor systems. Digital filtering, averaging, spectral analysis, signal estimation, detection and classification. Real-time and on-line applications will be emphasized. Student must have adequate mathematical background and permission of instructor.

Note: With the approval of the faculty advisor, the student may choose other elective courses from the University of Miami Graduate School course offerings.

**APPENDIX IV
Administrative Structure**



APPENDIX V

LETTERS OF SUPPORT



Mark D. Brown, M.D., Ph.D.
Professor and Chairman
Department of Orthopaedics and Rehabilitation
University of Miami School of Medicine

December 23, 1993

Sherrill H. Hayes, Ph.D., P.T.
Director, Division of Physical Therapy
Department of Orthopaedics & Rehabilitation
School of Medicine

Dear Sheri:

This letter is written to formally support the Division's proposed Ph.D. program in Physical Therapy. During the last eight years that the Division has been a part of the Department of Orthopaedics, I have watched it grow and prosper to the national status and recognition that it enjoys today. In my travels at various professional symposia throughout the country I am very proud to describe to my fellow colleagues the strong and vital link between the Division of Physical Therapy and the Department of Orthopaedics at the University of Miami. The development of a Ph.D. program is consistent with our goals to continue to be the standard to which other physical therapy programs strive to emulate.

Over the last several years there has been increased collaboration in clinical research between the Department and the Division, with several very important studies currently underway. This has been the most exciting alliance to evolve, and one which can only be strengthened in the future, with the institution of a Ph.D. program and strong doctoral students interested in research. The Division's generous loan of the microscope and microtome equipment has afforded the Department a new avenue of basic structural research on tendons and ligaments which has been very exciting. The upcoming studies of diagnostic predictors of back pain, cervical myelopathy sequellae, joint proprioception and somatosensory deficits in ACL deficient patients with Drs. Roach, Spielholz and Rine are examples of just the "tip of the iceberg" as to what our combined potential can be.

Specific support for the Ph.D. program which the Department will provide will include: continued interest in collaborative clinical research in musculoskeletal pathology and diagnosis, unlimited use of the Division's microscope and microtome equipment (housed in the Department) for future studies, availability of x-ray and/or MRI scanning for selected studies, clinical databases for selected patient populations for epidemiological research studies, and serving on dissertation committees, if appropriate. Of course, participation as lecturers on specific topics in the new courses is anticipated, and can easily be arranged with each respective faculty member in the Department.

I am sure that this undertaking will prove as successful as your entry level program. I have enjoyed working with these students on their research projects and look forward to continuing to do even more with doctoral level students.

Sincerely,

A handwritten signature in black ink, appearing to be "M. D. Brown", written over a horizontal line.

Mark D. Brown, M.D., Ph.D.
Professor and Chairman



October 4, 1993

Neil I. Spielholz, Ph.D.
Associate Professor
Division of Physical Therapy
5915 Ponce de Leon Blvd, 5th. Floor
Coral Gables, FL 33146

Dear Dr. Spielholz;

As we discussed, this letter is to express my willingness to participate in your proposed graduate course to physical therapists entitled "Instrumental Analysis of Human Motion". Our Motion Analysis Laboratory will also be available for projects of mutual interest as your program grows and evolves.

In addition, I would like to suggest that the following 3-credit courses offered by our Department be included as electives that your students could subsequently choose to help meet their core requirements:

612. Design of Experiments

657. Ergonomics and Occupational Biomechanics

659. Work Physiology

If I can be of any further assistance, please do not hesitate to call. I look forward to developing this program with you.

Sincerely,

A handwritten signature in cursive script that reads "Shihab Asfour". The signature is written in black ink and is positioned above a horizontal line that underlines the name.

Shihab Asfour, Ph.D.
Professor and Associate Chairman,
Department of Industrial Engineering



October 5, 1993

Neil I. Spielholz, Ph.D., P.T.
Associate Professor
Department of Orthopaedics and Rehabilitation
Division of Physical Therapy
5915 Ponce de Leon Boulevard
Plumer Building, 5th Floor
Coral Gables, FL 33146

Dear Dr. Spielholz:

This is to confirm my willingness and availability to lecture in the graduate course Pathobiology of Human Function. My focus will be how cardiovascular disorders do, or do not affect daily living, and how this may impact on physical therapy.

As we discussed, I request that arrangements be made for my lectures to be given here, at the medical campus.

Thank you, and good luck in this new undertaking.

Yours truly,

A handwritten signature in cursive script that reads "Martin Bilsker".

Martin S. Bilsker, M.D., FACC
Associate Professor of Medicine
Director Echo/Doppler Laboratory and
JMH Outpatient Cardiology Clinic

MSB/mrp

Division of Cardiology (D-39)
P.O. Box 016960
Miami, Florida 33101
305-585-2531
Fax: 305-585-7089



October 8, 1993

Neil I. Spielholz, Ph.D., P.T.
Associate Professor
University of Miami School of Medicine
Division of Physical Therapy
5915 Ponce de Leon Blvd, 5th. Floor
Coral Gables, FL 33146

Dear Dr. Spielholz:

This will confirm our conversation concerning my willingness to assist in your proposed Ph.D. Program in Physical Therapy. In addition to helping develop a qualitative course in instrumentation, other courses within our Department may be taken by your students as electives. These would include:

BME 511 Clinical Engineering

BME 622 Biomedical Signal Processing.

The latter, however, requires a mathematical background inclusive of calculus and differential equations, and the students are expected to have experience in numerical analysis and computer programming. For these factors the course would not be appropriate for all your candidates. Students would have to obtain permission from the instructor before they could register for it.

I look forward to this collaboration.

Sincerely,

A handwritten signature in black ink that reads "Peter P. Tarjan". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Peter P. Tarjan, Ph.D.
Professor and Chairperson

Dept. of Biomedical Engineering
College of Engineering
P.O. Box 248294
Coral Gables, Florida 33124-0621
(305) 284-2442



October 12, 1993

Neil I. Spielholz, Ph.D., P.T.
Associate Professor
Division of Physical Therapy
5915 Ponce de Leon Blvd, 5th. Floor
Coral Gables, FL 33146

Dear Dr. Spielholz;

This letter is to confirm my willingness to assist in your PhD Program in Physical Therapy. Specifically, I will lecture in your course Pathobiology of Human Function, on functional abnormalities (e.g. gait disturbances) in patients with selected neurological disorders.

I look forward to helping you and to our continued collaboration.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Carlos Singer". The signature is written in black ink and is positioned above the printed name and title.

Carlos Singer, M.D.
Assistant Professor,
Department of Neurology

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. **Date:** October 12, 1993
Social Security #: 369-50-3822

PERSONAL

2. **Name:** Edward Brooks Applegate III
Home Phone: (305)665-2734
Office Phone: (305)284-4535
- Home Address:** 6775 SW 53 Street
Miami, FL 33155
- Current Academic Rank:** Adjunct Assistant Professor
Primary Department: Division of Physical Therapy
Department of Orthopaedics and Rehabilitation
University of Miami School of Medicine
5915 Ponce de Leon Blvd., 5th Floor
Coral Gables, FL 33146
- Secondary or Joint Appointments:** None
Citizenship: USA
Visa Type: Not Applicable

HIGHER EDUCATION

11.	Institution	Degree	Major	Date
	Texas A&M University	Ph.D.	Educational Psychology Research, Evaluation, & Planning	1986
	Morehead State University	M.A.	Physiological Psychology	1983
	University of Wyoming	B.S.	Experimental Psychology	1979

12. **Non-Institutional Training**

1985-86 **Predoctoral Internship** - Honeywell Inc., Technology Strategy Center, Intelligent Interface Systems Group, Golden Valley, Minnesota. Participated in projects dealing with knowledge representation, advanced man-machine interfaces, diagnostic and predictive expert systems, and CRT display designs. Additionally, served on grant proposal writing teams and project final report writing teams.

13. **Certification:** None

EXPERIENCE**14. Academic:**

Employer	Position	Date
University of Miami Coral Gables, FL	Adjunct Assistant Professor Division of Physical Therapy, Department of Orthopaedics and Rehabilitation, University of Miami School of Medicine	1992-Present
University of Miami Coral Gables, FL	Assistant Professor Department of Educational & Psychological Studies	1988-1992
University of Alabama Tuscaloosa, AL	Assistant Professor Department of Behavioral Studies	1986-1988
Blinn College Brenham, TX	Instructor (50% time) Department of Computer Science	1984-1985
Texas A&M University College Station, TX	Assistant Instructor TAMU Gifted and Talented Institute	1984-1985
Lamar University Beaumont, TX	Assistant Graduate Instructor Department of Professional and Graduate Studies	1983
Lamar University Beaumont, TX	Assistant Program Director and Instructor Lamar Challenge '83	1983
Morehead State University Morehead, KY	Assistant Graduate Instructor Department of Psychology	1980-1982

15. Non-Academic:

Employer	Position	Date
AGH Associates Hampton, NH	Statistical Consultant	1993
New York State Psychiatric Association New York, NY	Statistical & Measurement Consultant	1991- 1993

American Psychiatric Association Washington DC	Statistical Consultant	1991-1992
Brooks Applegate Company Grand Rapids, MI	Statistical & Computer Consultant	1990 - 1993
Dade County Public Schools Miami, FL	Statistical Consultant	1989
Texas State Board of Examiners for the Licensing Professional Counselors Examination Development Committee, Austin, TX	Measurement Consultant	1983

16. **Military:** None

PUBLICATIONS

17. **Books and monographs:**

Applegate, E.B., Alexander, P.A., & Wilson, V.L. (1987). Computer-based testing with young children. In Zellner, R.D. (Ed.) Technology in education: Implications and applications. Houston, TX: Texas A&M University, College Station, Instructional Research Laboratory.

18. **Juried or refereed journal articles:**

Lahey, B.B., Hart, E.L., Pliszka, S., **Applegate, B.**, & McBurnett, K. (1993). Neurophysiological correlates of conduct disorder: A rationale and review of research. Journal of Clinical Child Psychology , 22, 141-153.

Montague, M. & **Applegate, B.** (1993). Mathematical problem-solving characteristics on middle school students with learning disabilities. Journal of Special Education, 27(2)

Montague, M. & **Applegate, B.** (1993). Middle school students' mathematical problem solving: An analysis of think-aloud protocols. Learning Disabilities Quarterly, 16(1), 19-32.

Applegate, B. (1992). The effects of computer presentation on the construction of geometric analogy problems. Journal of Educational Computing Research, 9(1), 61-77.

Williams, R.H. & **Applegate, B.** (1992). Tukey-like pairwise comparisons among variances. Behavior Research Methods, Instruments, & Computers, 24(3), 493-496.

Applegate, B., Fernandez, T., & Sarkar, D. (1992). Analogical Problem solving in an expert test. IEEE Transactions on Systems, Man, and Cybernetics, 22(5).

- Signorile, J.F., Kaplan, T.A., **Applegate, B.**, & Perry, A.C. (1992). Effects of acute inhalation of the bronchodilator, albuterol, on power output. Medicine and Science in Sports and Exercise, 24(6), 638-642.
- Perry, A.C., Shaw, M.H., Hsia, L., Nash, M.S., Kaplan, T., Signorile, J.F., & **Applegate, B.** (1992). Plasma lipid levels in active and sedentary premenopausal females. International Journal of Sports Medicine, 13(3), 210-215.
- Signorile, J., Digel, S., Moccia, G., **Applegate, B.**, & Perry, A. (1991). Effects of partial occlusion of circulation on frequency and amplitude of surface electromyography. Journal of Electromyography and Kinesiology, 1(2), 124-129.
- ZeBranek, J., Losito, J., Signorile, J., Janecki, C., McCauley, J., Young, J., & **Applegate, B.** (1990). The immediate physiological effects of foot orthotics. Footprints, 44(1), 1-8.
- Kaufman, A., Eller, B. & **Applegate, B.** (1990). An investigation of somatic anxiety and intelligence in children using the K-ABC and an Apple IIe program measuring heart rate. Perceptual and Motor Skills, 70, 387-394.
- Tomporowski, P., Hayden, A., & **Applegate, B.** (1990). The effects of shifts in background event rate on the sustained attention of mentally retarded adults during a cognitive vigilance task. American Journal on Mental Retardation, 94(5), 499-508.
- Applegate, B.** & LeBlanc, W. (1990). Creating item characteristic curves from LOGIST and BICAL output. Educational and Psychological Measurement, 50, 581-584.
- Applegate, B.**, & Kaufman, A. (1989). Short Form Estimation of K-ABC Sequential and Simultaneous Processing for Research and Screening Purposes. Journal of Clinical Child Psychology, 18, 305-313.
- Kaufman, A., & **Applegate, B.** (1988). Short forms of the K-ABC mental processing and achievement scales at ages 4 to 12½ years for clinical and screening purposes. Journal of Clinical Child Psychology, 17, 359-369.
- Mattingly, B., Gotsick, J., & **Applegate, B.** (1986). Serotonin, septal lesions, and shock-escape learning in rats. Psychological Reports, 58(1), 3-9.
- Mattingly, B., Chandler, H., **Applegate, B.**, & Brunelle, M. (1984). Activity during a conditioned aversive stimulus in rats treated with Para-Chlorophenylalanine. Psychological Record, 34, 389-396.
19. **Other works, publications and abstracts:**
- Keeler, J., Signorile, J.F., Perry, A., **Applegate, B.**, & Robertson, B. (1993). Impact of varying work intensity and rest intervals preceding supermaxial power testing. Medicine and Science in Sports and Exercise, 25(5), 5173.

- Signorile, J., Weber, B., Roll, B., Applegate, B., & Perry, A. (1991). Electromyographical assessment of intensity and fatigue during two different lifting exercises. Selected Articles from the Ninth Southern Biomedical Engineering Conference.
- Signorile, J.F., Kaplan, T., Applegate, B., & Perry, A.C. (1991). Effects of the bronchodilator, albuterol, on short-term power. Journal of Applied Sports Science Research, 5(3), 168.
- Signorile, J.F., Kaplan, T., Applegate, B., & Perry, A.C. (1991). Effects of acute inhalation of the bronchodilator, albuterol, on power output in a non-asthmatic population. Medicine and Science in Sports and Exercise, 23(4), S77.
- Digel, S., Signorile, J.F., Moccia, G., Applegate, B., & Perry, A.C. (1991). Effects of reduced metabolite washout on frequency and amplitude of surface EMG. Medicine and Science in Sports and Exercise, 23(4), S56.
- Perry, A.C., Signorile, J.F., Webber, B., & Applegate, B. (1991). Frequency and amplitude changes during concentric, eccentric, and mixed contractions. Medicine and Science in Sports and Exercise, 23(4), S57.
- Webber, B., Signorile, J., Roll, B., Applegate, B., & Perry, A.C. (1991). Electromyographical (EMG) analysis of the front and back squat. Journal of Applied Sports Science Research, 5(3), 164.
- Crane, L., Davis, B., Kreider, M., Signorile, J.F., Applegate, B., Perry, A.C., & Lowensteyn, I. (1991). Comparisons of pulmonary functions between endurance athletes and sprint athletes. Medicine and Science in Sports and Exercise, 23(4), S24.
- Applegate, B., Blews, D., Dandes, H., Provenzo, E., Shelly, J., & Signorile, J. (1990). Projecting computer needs into the 21st Century. School of Education, University of Miami, Coral Gables, FL.
- Applegate, B. (1986). Effects of computer presentation and manipulation on young children's solution to geometric analogy problems. (Doctoral dissertation, Texas A&M University, 1986). Dissertation Abstracts International, 47, 2505A.
- Applegate, B., Isle, B., Metz, S., & Penner, R. (1986). Functional guidelines for the electronic book. Honeywell Technology Strategy Center, Golden Valley, MN.
- Isle, B., Cochran, T., Penner, R., & Applegate, B. (1986). Equipment failure projection techniques: Phase II - section methods for predictive maintenance - final report. Honeywell Technology Strategy Center (Report No. 85547), Golden Valley, MN.
- Applegate, B. (1985). Page-1 user's manual: Trouble-shooting assistance for non-impact page printing systems. Honeywell Technology Strategy Center, Golden Valley, MN.

Applegate, B. (1983). The effects of response lever position on the performance of rats with septal lesions in a lever-press shock escape task. Unpublished master's thesis, Morehead State University, Morehead, KY.

20. Other works accepted for publication:

Montague, M., Applegate, B., & Marquard, K. (In Press). The effects of cognitive strategy instruction on mathematical problem solving performance of students with learning disabilities. Learning Disabilities Research and Practice.

Fowers, B.L., Applegate, B., Olson, D.H., & Pomerantz, B. (In Press). Marital conventionalization as a measure of marital satisfaction: A confirmatory factor analysis. Journal of Family Psychology.

Hart, E.L., Lahey, B.B., Loeber, R., Applegate, B., Green, S., & Frick, P.J. (In Press). Developmental change in attention-deficit hyperactivity disorder in boys: A four year longitudinal study. Journal of Consulting and Clinical Psychology.

Nash, M.S., Bilsker, M.S., Hughes, J., Kearney, H.M., Ramirez, J.N., Applegate, B., & Green, B.A. (In Press). Echocardiographically-derived wall motion and cardiodynamic responses to electrical stimulation cycle ergometry and lower extremity passive motion in tetraplegics. Paraplegia.

Lahey, B.B., Applegate, B., Barkley, R.A., Garfinkel, B., McBurnett, K., Kerdyck, L., Greenhill, L., Hynd, G.W., Frick, P.J., Newcorn, J., Biederman, J., Ollendick, T., Hart, E.L., Perez, D., Waldman, I., Shaffer, D. (In Press). DSM-IV Field Trials for oppositional defiant disorder and conduct disorder in children and adolescents. American Journal of Psychiatry.

Frick, P.J., Lahey, B.B., Applegate, B., Kerdyck, L., Ollendick, T., Hynd, G.W., Garfinkel, B., Greenhill, L., Biederman, J., Barkley, R.A., McBurnett, K., Newcorn, J., & Waldman, I. (In Press). DSM-IV Field Trials for the disruptive and attention deficit disorder: Diagnostic utility of symptoms. Journal of the American Academy of Child and Adolescent Psychiatry.

Shaw, J.A., Campo-Bowen, A.E., Applegate, B., Perez, D., Antoine, L.B., Hart, E.L., Lahey, B.B., Testa, R., & Devaney, A. (In Press). Young boys who commit serious sexual offenses: Demographics, psychometrics and phenomenology. American Academy of Psychiatry and the Law.

PROFESSIONAL

21. **Funded Research Performed (last 5 years):** None

22. **Editorial responsibilities:**

Journal of Clinical Child Psychology	Ad Hoc Reviewer
Journal of Abnormal Child Psychology	Ad Hoc Reviewer

23. **Professional and Honorary Organizations:**

American Educational Research Association	(1984)
American Statistical Association	(1992)
National Council on Measurement in Education	(1984)

24. **Honors and Awards:**

1981 Recognized for outstanding research by Sigma XI: North American Research Association

1980 Paper presented at the Kentucky Academy of Science entitled "*Perception of the Ames distorted room as a function of training and response measures.*" Awarded the Griffith Memorial Award for best paper in psychology.

1979 Research fellowship awarded by Alpha Tau Omega.

25. **Post-Doctoral Fellowship:** None

26. **Other Professional Activities:**

Juried presentations at professional conferences

Keeler, J, Signorile, J.F., Perry, A., Applegate, B., & Robertson, B. (June, 1993). Impact of varying work intensity and rest intervals preceding supermaxial power testing. Paper presentation at the National Meeting of the American College of Sports Medicine, Seattle.

Fowers, B.J., Applegate, E.B., Olson, D.H., & Pomerantz, B. (November, 1992). An Examination of Martial Satisfaction and Conventionalization at the Dyadic Level. Paper presented at the National Council on Family Relations Annual Meeting.

Shaw, J.A., Campo-Bowen, A., Applegate, B., Perez, D., Antoine, B., Lahey, B.B., Hart, E.L., Testa, R., & Devaney, A. (October, 1992). Young Boys Who Commit Sexual Offenses. Paper presented at the annual meeting of the American Academy of Child and Adolescent Psychiatry, Washington D.C.

- Fowers, B.J., Applegate, E.B., Olson, D.H., & Pomerantz, B. (August, 1992). Hypersatisfaction or Social Desirability: Factor Analyzing Marital Satisfaction and Conventionalization. Paper presented at the American Psychological Association Annual Meeting, Washington D.C.
- Montague, M., Applegate, B., Marquard, M., & Leavell, A. (April, 1992). The Effects of Strategy Instruction on Mathematical Problem Solving of Middle School Students with Learning Disabilities. Paper presented at the American Educational Research Association, San Francisco, CA.
- Applegate, B., Lahey, B., Hart, E., Ollendick, T., & McBurnett, K. (October, 1991). Symposium: DSM-IV Field Trials for the Disruptive Behavior Disorders: Preliminary Report. "Factor structure of symptoms of the disruptive behavior disorders." Presented at the 38th Annual Meeting of the American Academy of Child and Adolescent Psychiatry, San Francisco, CA.
- Lahey, B., Applegate, B., Garfinkel, B., & Greenhill, L. (October, 1991). Symposium: DSM-IV Field Trials for the Disruptive Behavior Disorders: Preliminary Report. "Comparison of DSM-II, DSM-II-R, ICD-10, and the DSM-IV options on prevalence, comorbidity, validity, and reliability." Presented at the 38th Annual Meeting of the American Academy of Child and Adolescent Psychiatry, San Francisco, CA.
- Signorile, J., Kaplan, T., Applegate, B., & Perry, A. (July, 1991). Effects of acute inhalation of the bronchodilator, Albuterol, on power output in a non-asthmatic population. Presented at the American College for Sports Medicine Annual Conference, Orlando, FL.
- ZeBranek, J., Losito, J., Signorile, J., Applegate, B., Janecki, C., McCauley, L., & Young, J. (July, 1991). The immediate physiological effects of foot orthotics. Presented at the American College for Sports Medicine Annual Conference, Orlando, FL.
- Perry, A., Signorile, J., Webber, B., & Applegate, B. (July, 1991). Frequency and amplitude changes during concentric, eccentric, and mixed contractions. Presented at the American College for Sports Medicine Annual Conference, Orlando, FL.
- Crane, C., Davis, B., Kreider, J., Signorile, J., Applegate, B., Perry, A., & Lowensteyn, I. (July, 1991). Comparison of pulmonary functions between endurance athletes and sprint athletes. Presented at the American College for Sports Medicine Annual Conference, Orlando, FL.
- Digel, S., Signorile, J., Moccia, G., Applegate, B., & Perry, A. (July, 1991). Effects of reduced metabolite washout on frequency and amplitude of surface EMG. Presented at the American College for Sports Medicine Annual Conference, Orlando, FL.
- Webber, B., Signorile, J., Roll, B., Applegate, B., & Perry, A. (June, 1991). Electromyographical (EMG) analysis of the front and back squat. National Strength and Conditioning Association Annual Conference, St. Louis, MO.

- Applegate, B., Cobham, I. & Dattatri, R. (April, 1991). Towards a linkage between conventional test theory and information processing theory in a computer based test. Presented at the National Council on Measurement in Education Annual Meeting, Chicago, IL.
- McMahon, R., Applegate, B., Kouzekanani, K., & Davison, R. (August, 1990). Confirmatory factor analysis of the Millon Clinical Multiaxial Inventory. Paper presented at the American Psychological Association Annual Meeting, Boston, MA.
- Signorile, J., Webber, B., Roll, B., Applegate, B., & Perry, A. (July, 1990). Electromyographical assessment of intensity and fatigue during two different lifting exercises. Ninth Southern District Bioengineering Conference, Miami, FL.
- Applegate, B. & Kaufman, A. (August, 1989). Short form estimation of K-ABC mental processing composite, achievement, sequential, and simultaneous processing scales for clinical, research, and screening purposes. Paper presented at the American Psychological Association Annual Meeting, New Orleans, LA.
- Applegate, B. (November, 1987). Creating item characteristic curves from LOGIST and BICAL output. Paper presented at the Mid-South Educational Research Association Annual Meeting, Mobile, AL.
- Applegate, B. (May, 1987). An investigation of the feasibility of computer technology for studying information processing in young children. Paper presented at the Association for Behavioral Analysis, Nashville, TN.
- Applegate, B. (November, 1986). A meta-analysis of the effects of day care on development. Paper presented at the Mid-South Educational Research Association Annual Meeting, Memphis, TN.
- Wilson, V., Goetz, E., Hall, R., & Applegate, B. (April, 1986). Effects of varying numbers of elements and transformations of matrix analogies on children ages 5-12. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.
- Applegate, B. (January, 1986). Effects of computer presentation and manipulation on young children's solution of geometric analogy problems. Paper presented at the Southwestern Educational Research Association Annual Meeting, Houston, TX.
- Wilson, V. & Applegate, B. (April, 1985). Differences in Texas Assessment of Basic Skills Test scores for special education and non-special education third grade students. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.
- Wilson, V., Applegate, B., & Stowe, M. (January, 1985). Beyond literacy: Computer curriculum ideas for high school. Symposium at the Southwest Educational Research Association Annual Meeting, Austin, TX.

- Wilson, V. & Applegate, B. (April, 1984). Lever press shock escape learning in rats with septal lesions: Effects of response lever position. Paper presented at the Southeastern Psychological Association Annual Meeting, New Orleans, LA.
- McNamara, J., Applegate, B., et al. (January, 1984). Dissertation integration method. Symposium at the Southwest Educational Research Association Annual meeting, Dallas, TX.
- Mattingly, B., Gotsick, J., Applegate, B., & Graham, M. (March, 1982). Serotonin, septal lesions, and shock escape learning in rats. Paper presented at the Southeastern Psychological Association Annual Meeting, New Orleans, LA.
- Osborne, F., Applegate, B., & Dyer, A. (November, 1981). Binocular viewing of the monocular Ames' distorted room. Paper presented at the Kentucky Academy of Science, Murray, KY.
- Mattingly, B., Chandler, H., Applegate, B., & Brunelle, M. (November, 1981). Locomotor activity during an aversive conditioned stimulus in rats treated with Para-Chlorophenylalanine. Paper presented at the Kentucky Academy of Science, Murray, KY.
- Osborne, F., Dyer, A., & Applegate, B. (November, 1980). Perception of the Ames distorted room as a function of training and response measure. Paper presented at the Kentucky Academy of Science, Lexington, KY.

In-service:

Two day in-service for Field Based Teacher Training Institute. Lamar University, Beaumont, TX, August, 1983

TEACHING

27. Teaching Awards Received: None

28. Teaching Specialization:

Applied Statistics
 Research Methodology
 Measurement
 Computer Applications to Research

Courses Taught: University of Miami

PTS 617 Clinical Research II
 EPS 667 Factor Analysis
 EPS 660 Advanced Research Methods
 EPS 650 Essentials of Educational Research
 EPS 591 Computer Applications to Administration
 EPS 568 Computer Applications to Educational Research

EPS 553 Educational Statistics
 EPS 550 Essentials of Educational Measurement
 TAL 502 Classroom Based Research

Courses Taught: University of Alabama

BER 690 Readings in Educational Research: *"Introduction to Graphical Display of Quantitative Information"*
 BER 690 Readings in Educational Research: *"Applications in Meta-Analysis"*
 BER 673 Seminar in Educational Research
 BER 658 Measurement in Research
 BER 558 Psychological Testing
 BER 550 Evaluation of Classroom Learning
 BER 546 Regression Methods in Education
 BER 540 Statistical Methods in Education
 BER 450 Tests and Measurements
 BCT 400 Computer Education in Curriculum Development

Courses Taught: Blinn College

CS 141 Introduction to Microcomputing
 CS 143 Computer Programming

29. Thesis and Dissertation Advising

Maria Isabel Panizo	Ph.D.	Educational Research	1991
Eleanor Siegal	Ph.D.	Educational Research	1992
Diane A Guttman	Ph.D.	Clinical Psychology	1993
Laura Demarco	Ph.D.	Counseling Psychology	1992
Scott McIntosh	Ph.D.	Counseling Psychology	1992
Lillian Torre	Ph.D.	Counseling Psychology	1993
Linda Thomas	Ph.D.	Reading & Learning Disabilities	1991
Diane Hagger	Ph.D.	Reading & Learning Disabilities	1992
Rita Howard	Ph.D.	Reading & Learning Disabilities	1991
Sherrill Hayes	Ph.D.	Higher Education Administration	1992
Joyce Thomas	Ed.D.	Educational Leadership	1991
Fabian Mayta	Ed.D.	Educational Leadership	1990
Keitha Lucus	Ph.D.	Music Education	1991

SERVICE**30. University Committee and Administrative Responsibilities:**

- 1993- Research Committee
Division of Physical Therapy, University of Miami
- 1992- Curriculum Committee
Division of Physical Therapy, University of Miami
- 1991-92 Development Committee
School of Education, University of Miami
- Merit Evaluation Review Subcommittee
Department of Educational and Psychological Studies, University of Miami
- 1990-92 Graduate Council
University of Miami
- 1990-92 School Council
School of Education, University of Miami
- 1989-92 Computer Advisory Committee
School of Education, University of Miami
- 1988-89 Computer Advisory Committee (**Chair**)
Department of Educational and Psychological Studies, University of Miami
- 1986-87 Merit Review Committee
Area of Behavioral Studies, University of Alabama
- 1982-83 Dean's Student Advisory Committee
School of Education, Lamar University
- 1980-81 Distinguished Researchers Award Committee
Morehead State University

31. Community Activities:

- 1989-1991 Board of Directors, Canterbury Child Care Center
- 1988-1990 Faculty Fellow: Pearson Residential College
- 1986-1988 Faculty Advisor - Beta Delta Chapter of Alpha Tau Omega Fraternity,
University of Alabama

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. Date: August 27, 1993
Social Security #: 029-40-5085

PERSONAL:

2. Name: Kathleen A. Curtis, Ph.D., P.T.

3. Home Phone: (305) 661-1199

4. Office Phone: (305) 284-4535 **Office Fax:** (305) 284-6128

5. Home Address: 6331 S.W. 49 St., Miami, FL 33155, U.S.A.

6. Current Academic Rank: Assistant Professor

7. Primary Department: University of Miami-School of Medicine
Dept. of Orthopaedics and Rehabilitation, Division of Physical Therapy
5915 Ponce de Leon Blvd, 5th floor, Coral Gables, Fl 33146, U.S.A.

8. Secondary or Joint Appointments: None

9. Citizenship: U.S.

10. Visa Type: None

HIGHER EDUCATION:

11. Institutional:

University of California, Los Angeles
Ph.D., Education, 1990

San Jose State University, San Jose, California
M.A. Health Science, 1983

Northeastern University, Boston, Massachusetts
B.S. Physical Therapy with Highest Honors, 1972

12. Non-Institutional:

Continuing Education Courses and Professional Conferences Attended:

1972:

Strategies of Functional Assessment for Medical Rehabilitation, Boston Massachusetts

1973:

Classification and Evaluation of the Wheelchair Athlete, Boston, Massachusetts

The Child with Spina Bifida: The Birth Defect and Clinical Management of the Problems, New York University Medical Center, New York

1974:

Care of the Handicapped Child: American Academy of Orthopedic Surgeons, Boston, Massachusetts

1975:

Seminar in Child Development, Massachusetts Chapter American Physical Therapy Association, Boston, Massachusetts

1977:

Cardiopulmonary Resuscitation, Burlington, Vermont

1978:

Public Law 94-142, Denver, Colorado

1978 :

Wheelchair Sports and Recreation, Salt Lake City, Utah

Grantsmanship Seminar, San Jose, California

1979:

California Association of Rehabilitation Facilities Conference, San Jose, California

American Academy of Orthopedic Surgeons Course for Orthopedic Nurses, San Francisco, CA

1980:

Cyriax Course in Orthopedic Medicine, San Francisco, CA

Acupressure, Center for Chinese Medicine, San Francisco, California

Public Relations, Media and Health Care Organizations, DeAnza College

1981:

Interdisciplinary Model for the Management of a Spinal Cord Injury, Rancho Los Amigos Hospital, Los Angeles, California,

How to Write a Research Grant Proposal, American Physical Therapy Association, Reno, Nevada

National Institute for Wheelchair Sports Development, Denton, Texas

Horizons West Conference Therapeutic Recreation Conference, San Francisco, California

Sexual Attitude Reassessment Workshop, Santa Clara Valley Medical Center, San Jose, California

California Chapter American Physical Therapy Association Conference, Anaheim, California

1982:

Combined Sections Meeting, American Physical Therapy Association, San Diego, California

United States Olympic Committee Planning Workshop for the Disabled Athlete (National Wheelchair Athletic Association delegate), Colorado Springs, Colorado

Cardiovascular Training and the Disabled, Stanford University, Palo Alto, California

Annual Conference, American Physical Therapy Association Conference, Anaheim, California

American Physical Therapy Association Item Writer's Training Workshop, Anaheim, California

Annual Conference of the American Congress of Rehabilitation Medicine, Houston, Texas

Systematic Course Design, How To Improve Your Teaching Program, Harvard Medical School, Boston, Massachusetts

1983:

Videowest Conference, San Francisco, California

Sports and the Disabled Child, American Academy of Orthopedic Surgeons, Winter Park, Colorado

Sports Psychology, US Olympic Committee, Long Beach, California

Motor Control, Harvard Medical School, Boston, Massachusetts

Annual Conference of the American Congress of Rehabilitation Medicine, Los Angeles, California

Combined Sections Meeting, American Physical Therapy Association, Houston, Texas

1984:

Medical Classification Workshop, National Association of Sports for Cerebral Palsy, Palo Alto, California

Annual Meeting, International Medical Society of Paraplegia, Denver, Colorado

Olympic Scientific Congress, Eugene, Oregon

National Spinal Cord Injury Centers Physical Therapy-Occupational Therapy Supervisor's Meeting, Rancho Los Amigos Medical Center, Downey, California

Annual Conference of the American Congress of Rehabilitation Medicine, Boston, Massachusetts

1985:

Introduction to Programming in Fortran, Mount St. Mary's College

Abilities Unlimited Expo, Los Angeles

Introduction to Programming in Basic, Mount St. Mary's College (8 hours)

Combined Clinical Education Meeting, "Spring Training for Clinical Educators", Mount St. Mary's College, Los Angeles

Cardiac Rehabilitation: The Role of Diet and Exercise, American Heart Association, Los Angeles

Integrated Approaches to Treating the Neurological Patient, National Video Conference, Northridge

Education Forum: California Chapter American Physical Therapy Association
Conference, Long Beach

Leadership for Change in Physical Therapy Clinical Education, American Physical
Therapy Association, Rock Eagle, Georgia

Survival Skills for the Classroom: Education Section American Physical Therapy
Association, Anaheim

American Physical Therapy Association Combined Sections Meeting, American
Physical Therapy Association, Anaheim

The Role of the Physical Therapist in Coping With Aging and Chronic Illness, Aging
in America, Los Angeles

California Chapter American Physical Therapy Association Conference, Reno

1987:

Interdisciplinary Treatment of Chronic Pain: The Role of The Physical Therapist, Los
Angeles

Combined Clinical Education Meeting, Professional Growth-The Interactive Process,
Los Angeles

Annual Conference, American Physical Therapy Association , San Antonio, TX

Leadership Skills for Physical Therapists, American Physical Therapy Association ,
San Antonio, TX

California Chapter American Physical Therapy Association meeting, Palm Springs

1988:

American Physical Therapy Association Combined Sections Meeting, Washington
DC

Annual Conference, American Physical Therapy Association , Las Vegas, NV

Sportsmedicine Concerns for Women Athletes, Van Nuys, CA

1989:

American Physical Therapy Association Combined Sections Meeting, Honolulu, HI

American Educational Research Association Annual Meeting, San Francisco

California Chapter American Physical Therapy Association meeting, San Diego

The Pelvic Girdle, Cedars-Sinai Medical Center, Richard Jackson, P.T., Los Angeles

Dealing With Difficult Physicians, Burbank, CA

1990:

Facilitating Respiratory Function in Neurological Patients, Los Angeles

National American Physical Therapy Association Conference, Anaheim

California Chapter American Physical Therapy Association meeting, Oakland, CA

19th National Conference on Physical Activity for Exceptional Individuals, Sacramento, CA

Capturing Dollars: Strategies for Physical Therapy Researchers, American Physical Therapy Association, Los Angeles

1991:

Fitness Assessment and Exercise Training for Spinal Cord Injured Individuals: Recommendations Based on Current Research, Neurology Section, American Physical Therapy Association, Orlando, FL

American Physical Therapy Association Combined Sections Meeting, Orlando, FL

American Educational Research Association Annual Conference, Chicago

Annual Conference, American Physical Therapy Association Boston, MA

World Confederation for Physical Therapy, 11th International Congress, London

Fall Conference, Florida Physical Therapy Association, Orlando, FL

8th International Symposium, International Federation of Adapted Physical Activity, Miami, FL

1992:

Combined Sections Meeting, American Physical Therapy Association, San Francisco, CA

American Educational Research Association Conference, San Francisco, CA

University of Illinois Wheelchair Classic Workshop, Champaign, IL

Annual Conference, American Physical Therapy Association Denver, CO

1993:

Vista '93, Symposium on Disabled Sportsmedicine, International Paralympic Committee, Jasper, Canada

13. Certification, Licensure:

Physical Therapist # 8652 , California Board of Medical Quality Assurance, August, 14, 1978

Physical Therapist # 0007264, Florida Department of Professional Regulation, Board of Physical Therapy Practice, September 12, 1991

Certification, International Classification Referee, International Wheelchair Basketball Association, August 5, 1990.

EXPERIENCE:

14. Academic:

Assistant Professor, University of Miami School of Medicine, Division of Physical Therapy, Coral Gables, FL (1991-present)

Clinical Assistant Professor, University of Southern California, Department of Physical Therapy, Los Angeles, (1990-1991)

Instructor and Academic Coordinator of Clinical Education, Mount St. Mary's College, Programs in Physical Therapy, Los Angeles, California (1984-1986)

15. Non-Academic:

Director and Educational Consultant, HEALTH DIRECTIONS, Educational Services for the Health Professions, Los Angeles (1985-1991), So Miami, FL (1991-present)

Professional Development Specialist, Dept. of Physical Medicine and Rehabilitation, Cedars-Sinai Medical Center, Los Angeles, CA (1987-1991)

Spinal Cord Injury Program Physical Therapy Supervisor and Education Coordinator,
Santa Clara Valley Medical Center, San Jose California (1978-1984)

Partner, Rethlake and Curtis Physical Therapy, (Private Practice), Los Altos,
California (1979-1980)

Program Director, Easter Seal Society of Utah, Salt Lake City, Utah (1977-78)

Research Assistant, University of Vermont, Department of Rehabilitation Medicine,
Burlington, Vermont (1976)

Staff Physical Therapist, Tufts-New England Medical Center Hospital and
Rehabilitation Institute, Boston, Massachusetts (1972-1975)

16. Military: None

PUBLICATIONS

17. Books and monographs published:

Insurance Guide to the Needs of the Physically Handicapped in Vermont. Health
Resources Inc. Regional Medical Program, 1976

Curtis K: *Training Programs for Clinical Instructors,* Health Directions, Los
Angeles, 1988.

Curtis K: *Interprofessional Conflict in Health Care: The Effects of An Attribution*
Retraining Program on Burnout, Role Satisfaction, Job Turnover and Job
Advancement, Doctoral Dissertation, UCLA, 1990

Guide to the Sportsmedicine Needs of Athletes with Disabilities, USA Track and
Field, Committee on Athletics for the Disabled, 1992

18. Juried or refereed journal articles and exhibitions:

Granger, CV and Rodrigues, K: The Role of the Physiatrist and Physical Therapist in
Myelodysplasia, in Birth Defects and the Orthopedic Surgeon. *Orthopedic*
Clinics of North America 7:489-93,1976

Madorsky, J and Curtis, K: Wheelchair Sportsmedicine. *American Journal of*
Sportsmedicine 12:128-132, 1984

Curtis, K: Role Satisfaction of the Physical Therapist in the Treatment of the Spinal Cord Injured Person. *Physical Therapy* 5: 197-200, 1985

Curtis, K and Dillon, D: Survey of Wheelchair Athletic Injuries: Common Patterns and Prevention. *Paraplegia* 23:170-175, 1985

Curtis, K, Hall, K et al: Health, Vocational and Functional Status in Spinal Cord Injured Athletes and Non-Athletes, *Archives of Physical Medicine and Rehabilitation*, 67: 862-865, 1986

Curtis, K and Hall, K: Spinal Cord Injury Community Follow-up- The Role of the Physical Therapist. *Physical Therapy* 66: 1370-1375, 1986.

Hardcastle P, Bedbrook G, Curtis K: Long-term results of conservative and operative management in complete paraplegics with spinal cord injuries between T10 and L2 with respect to function. *Clinical Orthopaedics and Related Research* 224: 88-96, November, 1987

Curtis K: Altering beliefs about the importance of strategy: An attributional intervention. *Journal of Applied Social Psychology*, 22(12) 953-972, 1992

19. Other works and publications

Curtis, K: Wheelchair Paracourse-Endurance Program in Spinal Cord Injury Rehabilitation. *Model Systems SCI Digest* 2:23-31, Fall, 1980

Curtis, K: Wheelchair Paracourse-Endurance Program. *Programming Trends in Therapeutic Recreation* 1:3-6, October, 1980

Curtis, K: Wheelchair Sportsmedicine-Part I: Basics of Exercise Physiology. *Sports 'n Spokes* 7(1):26-28, May/June, 1981

Curtis, K: Wheelchair Sportsmedicine-Part II: Training. *Sports 'n Spokes* 7(2): 16-19, July /August, 1981

Curtis, K: Wheelchair Sportsmedicine-Part III: Stretching Routines. *Sports 'n Spokes* 7(3):16-18, September/October, 1981

Curtis, K: Wheelchair Sportsmedicine-Part IV: Athletic Injuries. *Sports 'n Spokes* 7(5): 20-24, January/February 1982

Curtis, K: NWAA/NWBA Wheelchair Athletic Organizations; Wheelchair Athletic Injuries. in *Sports and the Disabled Child*, American Academy of Orthopedic Surgeons, 1983

- Weiss, M and Curtis, K: Controversies in Medical Classification in Wheelchair Athletics. in Sherrill, C (ed.) *Sport and Disabled Athletes -1984 Olympic Scientific Congress Proceedings*, Vol 9. Human Kinetics Publishers, Inc., Champaign, IL, 1986
- Curtis, K and Dillon, D: Survey of Wheelchair Athletic Injuries: Common Patterns and Prevention. in Sherrill, C (ed.) *Sport and Disabled Athletes -1984 Olympic Scientific Congress Proceedings*, Vol 9. Human Kinetics Publishers, Inc., Champaign, IL, 1986
- Curtis, K: Causal Attributions for Physical Therapist Support and Compromise of their Professional Judgment, unpublished manuscript., 1988
- Curtis K: Career development: Innovative management solutions to staff attrition. *Rehab Management* 2(3): 65-68, June-July, 1989.
- Curtis K: CPM -On the move. *Home Health Care Dealer* 1(3): 67-69, 82, July/Aug, 1989
- Curtis, K: Wanted: A Few Good Therapists. *Rehab Management* 2(4): 18-22, August/ September, 1989.
- Curtis, K: Classification systems for disabled athletes. *Rehab Management* 2(5): 54, October/November, 1989.
- Curtis K, Steadward R, Weiss M: Impairment: No barrier to fitness. *Patient Care* 24 (1) : 130-162, January 15, 1990
- Thiboutot T and Curtis K: NWBA Classification: The player, coach and classifier perspectives. *Sports 'n Spokes* 16 (1): 46-47, May-June, 1990.
- Curtis K: Survival Training for Clinical Practice. *Rehab Management* 4(2): 78-79, Feb- March, 1991
- Curtis K and Martin T: Recruitment and retention in acute care. *Rehab Management*, 4(5): 69-70, 72,74-76, June-July, 1991
- Curtis K: The door is open: Necessary steps for worldwide therapists seeking jobs in the United States. *Rehab Management International*, 1(1) 26-27, 29, July, 1991
- Curtis K: Sport-specific functional classification for wheelchair athletes. *Sports 'n Spokes* 17 (2): 45-48, July/August, 1991

Curtis K: Role conflict with physicians: Attribution retraining for physical therapists. *World Confederation for Physical Therapy, 11th International Congress Proceedings, Book III*, London, 1719-1721, July, 1991

Curtis K: Perspectives on the functional (4-point) international wheelchair basketball classification system. *Wheelchair Basketball World*. 1(1), March, 1992

Curtis K: Role conflict with physicians: Attribution retraining for physical therapists. (abstract) *Physical Therapy*. 72(6): S83, 1992

Curtis K: A team trainer? This may make the difference in how well you play next season. *Wheelchair Basketball World*. 1(2), June, 1992

Curtis K: Zone and national resource package. in *Proceedings Manual: Third International Wheelchair Basketball Symposium for Coaches, Athletes and Officials*. 63-70, Rick Hansen Centre, University of Alberta, Edmonton, Alberta Canada, 1993.

20. Other works accepted for publication:

Curtis K, Martin T: Perceptions of Acute Care Physical Therapy Practice:

Issues for Physical Therapist Preparation, In press, *Physical Therapy*, September, 1993

Curtis K: Attributional analysis of interprofessional role conflict. In revision, August, 1993

PROFESSIONAL:

21. Funded Research Performed:

Hall, K., (Administrative Director), Wilmot, C., (Principal Investigator) K. Curtis, Co-Investigator "Impact of Sports Involvement on Health Status in SCI," Northern California Regional SCI System, Rehab Services Administration, 1982-1984

Hall, K., (Administrative Director), Wilmot, C., (Principal Investigator) K. Curtis, Co-Investigator "Spinal Cord Injury Community Follow-up-The Role of the Physical Therapist." Northern California Regional SCI System, Rehab Services Administration, 1982-1984

Hall, K., (Administrative Director), Wilmot, C., (Principal Investigator) P. Hardcastle, K. Curtis, Co-Investigators, "Lumbar Movement, Trunk Strength and Sitting Balance in Paraplegics After Injury to the Thoracolumbar Junction," Northern California Regional SCI System, Rehab Services Administration, 1983-1985

Curtis, K., (Principal Investigator), "Causal Attributions for Physical Therapist Support and Compromise of their Professional Judgment" UCLA Graduate School of Education, 1986-1987

Curtis, K., (Principal Investigator), "National Wheelchair Athletic Association: Classification Training Project" funded by United States Olympic Committee, 1987

Curtis, K., (Principal Investigator), "Interprofessional Conflict in Health Care: The Effects of An Attribution Retraining Program on Burnout, Role Satisfaction, Job Turnover and Job Advancement" UCLA Graduate School of Education, California Physical Therapy Fund, 1988-1990

Ferrara Michael (Principal Investigator) K. Curtis, Member Advisory Committee, ADIR, Athletes With Disabilities Injury Registry, funded by U.S. Olympic Committee (1990-present)

Curtis, K (Principal Investigator) "Development of a Shoulder Pain and Disability Index for Wheelchair Users. Co-Investigators: K. Roach, B. Applegate, funded by Florida Paralyzed Veterans of America (1993)

22. Editorial Responsibilities:

Editorial Advisory Board, *Rehab Management , The Journal of Therapy and Rehabilitation*

Advisory Board, *PERQ: Professions Education Researcher Quarterly*, a publication of Division I: Education in the Professions of the American Educational Research Association

Contributing Editor, *Wheelchair Basketball World*

23. Professional and Honorary Organizations:

American Physical Therapy Association

Sections for Education, Research, Neurology

American Educational Research Association
Division I, Education in the Professions
National Association of Female Executives
Honor Society of Phi Kappa Phi
International Federation of Adapted Physical Activity

24. Honors and Awards

Boston Bouve College Honor Award, Northeastern University, 1971
Phi Kappa Phi Honor Award, Northeastern University, 1971
Sears B. Condit Award, Northeastern University, 1972
Harold D. Hodgkinson Award, Northeastern University, 1972
Northern California Wheelchair Basketball Conference, Coach of the Year, 1980
California Physical Therapy Fund Scholarship, 1986, 1987
Mabel R. Wilson Fellowship, UCLA, 1988
Physical Therapy Foundation Graduate Traineeship, 1988
Special Commendation for Outstanding Contribution to the Physical Therapy
Division, Cedars-Sinai Medical Center, Los Angeles, 1988
Faculty Initiative Award, University of Miami School of Medicine, Department of
Orthopaedics and Rehabilitation, Division of Physical Therapy, 1992
Academic Specialist Grant , (Fulbright Program) United States Information Agency,
1993: 2-week grant to conduct workshops on sports medicine for disabled
athletes in Amman, Jordan, 1993.

25. Post-Doctoral Fellowships: None

26. Other Professional Activities:

Teaching Services in Other Academic Institutions:

Guest lecturer, Boston School of Occupational Therapy, "Gait Analysis and
Deviations," 1974-75

- Guest lecturer, Northeastern University Physician's Assistant Program, "Role of the Physical Therapist, 1974-75
- Guest lecturer, University of Utah, Dept. of Physical Therapy, "Classification of the Wheelchair Athlete, (class project), 1978
- Guest lecturer, University of Utah, Dept. of Leisure Services, "Recreation Programming for the Physically Disabled," 1978
- Guest lecturer, University of Utah, Dept. of Adapted Physical Education, Coordination and direction of class project, "The Utah Wheelchair Open,(athletic meet), 1978
- Guest lecturer, West Valley College, Dept. of Adapted Physical Education, Saratoga, CA, "The Role of Physical Therapy, 1981-1983
- Guest lecturer, UCSF Curriculum in Physical Therapy, "Spinal Cord Injury Evaluation and Treatment," lecture/lab (16 hours), 1983, 1984
- Guest lecturer, Stanford University School of Medicine, Division of Physical Therapy, "Wheelchair Endurance Programs: Disabled Fitness," lecture/lab (3 hours), 1983
- Guest lecturer, California State University, Long Beach "Wheelchair Athletic Classification Systems and Injury Prevention" lecture (3 hours), 1986
- Guest lecturer, Texas Woman's University, Dept of Physical Education Spring Lecture Series, "Wheelchair Sportsmedicine: Athlete Classification, Training, Injury Prevention and Research Needs" (12 hour program)1987
- Guest Lecturer, University of Jordan, Amman Jordan. "Wheelchair Basketball Classification Clinic" 1993
- Guest Lecturer, Yarmouk University, Irbid, Jordan. "Wheelchair Basketball Classification Clinic", 1993
- Consultant, Jordan Sports Federation for the Handicapped, United States Information Agency, Academic Specialist Program (Fulbright Program) 2-week grant to conduct workshops on sports medicine for disabled athletes in Amman, Jordan, April, 1993.

Professional Presentations, Seminars, and Short Courses:

- "Wheelchair Paracourse Program," California Association of Rehabilitation Facilities (CARF) conference, San Jose, CA, 1979
- "Spinal Cord Injury Rehabilitation- The Team Approach," American Academy of Orthopedic Surgeons, San Francisco, CA, 1979
- "Spinal Cord Injury Program at Santa Clara Valley Medical Center," American Physical Therapy Association District meeting, Redding, CA, 1981
- "Wheelchair Athletic Classification," National Institute for Wheelchair Sports Development, Denton, Texas, 1981
- "Injury Prevention, "National Wheelchair Basketball Association Coaches Clinic: Injury Prevention, Detroit, Michigan, 1981
- "N.W.A.A. Classification System: Classifier Training Workshop" California State University at Long Beach, 1981
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, San Jose, 1981
- "Wheelchair Sportsmedicine Workshop," Horizons West Conference, San Francisco, CA, 1981
- "Wheelchair Endurance Program in SCI Rehabilitation," Combined Sections Meeting, American Physical Therapy Association, San Diego, CA , 1982
- "Respiratory Care and Glossopharyngeal Breathing in Treatment of the SCI Patient," Craig Hospital, Denver, Colorado, 1982
- "N.W.A.A. Classification System: Classifier Training Workshop," University of California, Santa Barbara, 1982
- "Wheelchair Athletic Injuries, Common Patterns and Prevention," American Congress of Rehabilitation Medicine Conference, Houston, Texas, 1982
- "Wheelchair Athletic Injuries, Common Patterns and Prevention," California Chapter American Physical Therapy Association Conference, Monterey, CA . 1982
- "Preceptor Training", UCSF Curriculum in Physical Therapy, Clinical Associates Meeting, 1983

- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Dallas, 1983
- "Wheelchair Athletics and Injuries of the Disabled Athlete," American Academy of Orthopedic Surgeons, Colorado Springs, Colorado, 1983
- "Easy and Effective Media," San Jose District American Physical Therapy Association meeting, 1983
- "N.W.A.A. Classification System: Classifier Training Workshop," DeAnza College, 1983
- "Wheelchair Endurance Programs: Disabled Fitness," Guest lecturer, Stanford University School of Medicine, Division of Physical Therapy, lecture/lab 1983
- "Principles of Conditioning and Classification of Disabled Swimmers," Tim LaRocca Memorial Swim Clinic, Santa Clara, CA, 1984
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Dallas, 1984
- "Rehabilitation Team Specialization-Team Building Workshop," Memorial Hospital, South Bend, Indiana, 1984
- "Wheelchair Athletics: Injuries and Outcomes," Wisconsin State Medical Society meeting, Milwaukee, Wisconsin, 1984
- "Preceptor Preparation Workshop-How To's for the New Clinical Instructor," DeAnza College/San Jose District American Physical Therapy Association, Cupertino, CA, 1984
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Los Angeles, 1984
- "N.W.A.A. Classification System: Classifier Training Workshop," California State University at Fresno, 1984
- "Survey of Wheelchair Athletic Injuries: Common Patterns and Prevention," International Medical Society of Paraplegia, Denver, 1984
- "Wheelchair Athletic Injuries, Common Patterns and Prevention," Olympic Scientific Congress, Eugene, Oregon, 1984

- "Controversies in Medical Classification," (with M. Weiss, MD) Olympic Scientific Congress, Eugene, Oregon, 1984
- "Role Satisfaction of the Physical Therapist in the Treatment of the Spinal Cord Injured Person," SCI Center PT-OT Supervisors Conference, Downey, CA, 1984
- " Spinal Cord Injury Community Follow-up- The Role of the Physical Therapist," SCI Center PT-OT Supervisors Conference, Downey, CA, 1984
- "Spinal Cord Injury Community Follow-up- The Role of the Physical Therapist," American Congress of Rehabilitation Medicine Conference, Boston, MA, 1984
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Fullerton, CA 1984
- "Giving feedback- a model for Clinical Instructor Training," Combined Clinical Education Meeting, Los Angeles, 1985
- "N.W.A.A. Classification System: Classifier Training Workshop," Mt. San Antonio Community College, 1985
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Los Angeles, 1985
- "Coaching for Student Success-Skills for the Clinical Instructor," Los Angeles, 1985
- "Physical Therapy Classes for Patient Education and Treatment, Daniel Freeman Memorial Hospital, Los Angeles, April, 1985; Rehab Hospital of the Pacific, Honolulu, August, 1985.
- "Coaching for Student Success-Skills for the Clinical Instructor," Rehabilitation Hospital of the Pacific, Honolulu, 1985
- "Wheelchair Paracourse-Endurance Program in SCI Rehabilitation," Rehab Hospital of the Pacific, Honolulu, 1985.
- "Mediation of Affective Domain Problems in Clinical Education," Clinical Education Forum, Los Angeles, 1985
- "Coaching for Student Success-Skills for the Clinical Instructor," Long Beach, 1985

- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," San Francisco, 1985
- "Coaching for Student Success-Skills for the Clinical Instructor," San Francisco, 1985
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Los Angeles, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," Los Angeles, 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," San Diego, CA, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," San Diego, CA, 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Stockton, CA 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," Stockton, CA, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," Tustin, CA, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," Fresno, CA 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," San Francisco, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," San Francisco, 1986
- "Profit by Assertive Clinical Practice: Positive Strategies for Health Professionals," Honolulu, 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," East Windsor, New Jersey, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," East Windsor, New Jersey, 1986

- "Diagnosing Student Readiness for Responsibility: Difficult Decisions for the Clinical Instructor, " Loma Linda University, Loma Linda, CA 1986
- "Training New Staff for Clinical Survival," Los Angeles, 1986
- "Maximizing the Blue MACS," Oxnard, CA 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Dallas, 1986
- "Coaching for Student Success-Skills for the Clinical Instructor," Dallas, 1986
- "Maximizing the Blue MACS," Long Beach, CA 1986
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Los Angeles, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Los Angeles, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," New Orleans, 1987
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Milwaukee, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Milwaukee, 1987
- "Profit by Assertive Clinical Practice: Positive Strategies for Health Professionals," Long Beach, CA 1987
- "Communicating Your Needs: Key Survival Skills for Health Professionals," City of Hope Medical Center, Duarte, CA 1987.
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," East Windsor, New Jersey, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," East Windsor, New Jersey, 1987
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Los Angeles, 1987

- "Coaching for Student Success-Skills for the Clinical Instructor," Los Angeles, 1987
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Oakland, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Oakland, 1987
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Honolulu, August, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Honolulu, 1987
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Royal Oak, MI, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Royal Oak, MI, 1987
- "National Wheelchair Athletic Association: Training the Trainer's Workshop for Classifier Trainers" Dallas Rehabilitation Institute, Dallas, TX 1987
- "Wheelchair Sportsmedicine: Athlete Classification, Training, Injury Prevention and Research Needs" Visiting Professor, Texas Woman's University Dept of Physical Education, Spring Lecture Series, Denton, Texas, 1987
- "Physical Therapy Evaluation and Treatment of Paraplegia Following Spinal Cord Injury"; North Coast Rehabilitation Center, Santa Rosa, CA, 1987
- "Concern or Catastrophe: Resolving Conflicts in Today's Clinical Practice" (2 hour program), Memorial Medical Center, Long Beach, CA, 1987
- "What Color is Your Stethoscope- Career Planning for Health Care Professionals," Los Angeles, 1987
- "Career Development: Starting Out on the Right Foot," California Chapter American Physical Therapy Association Conference, Palm Springs, 1987
- "Career Survival Skills for Physical Therapists," California Chapter American Physical Therapy Association Conference, Palm Springs, 1987
- "Coaching for Student Success-Skills for the Clinical Instructor," Kaiser Medical Center, Santa Clara, CA 1988

- "Coaching for Student Success-Skills for the Clinical Instructor," St. Mary Medical Center, San Francisco, 1988
- "Diagnosing Student Readiness for Responsibility: Difficult Decisions for the Clinical Instructor," San Jose State University Department of Occupational Therapy, 1988
- "Coaching for Student Success-Skills for the Clinical Instructor," Minnesota Clinical Education Consortium, Minneapolis, 1988
- "Facilitating Affective Behavior Change: Are you a Chicken or an Eagle?" Los Angeles Area Clinical Education Forum, December 1987; San Diego Area Clinical Education Forum, 1988
- "Coaching for Student Success-Skills for the Clinical Instructor," University of North Dakota, Grand Forks, ND, 1988
- "Diagnosing Student Readiness for Responsibility: Difficult Decisions for the Clinical Instructor," J.F.K. Medical Center, Edison, New Jersey, 1988
- "Training New Staff for Clinical Survival," J.F.K. Medical Center, Edison, New Jersey, 1988
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Phoenix, 1988
- "Career Planning in Physical Therapy", California Chapter American Physical Therapy Association Conference, Monterey, CA, 1988
- "The National Wheelchair Athletic Association Classification System," California Chapter American Physical Therapy Association Conference, Monterey, CA, 1988
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Staten Island, NY 1988
- "Coaching for Student Success-Skills for the Clinical Instructor," University of North Dakota, Staten Island, NY 1988
- "Survival Training for Clinical Practice: A Post-Graduate Staff Development Program," American Physical Therapy Association Combined Sections Meeting, Honolulu, HI, 1989

- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Wayne State University, Department of Occupational Therapy, Detroit, MI, 1989
- "Coaching for Student Success-Skills for the Clinical Instructor," Wayne State University, Department of Occupational Therapy, Detroit, MI, 1989
- "Physical Therapy Evaluation and Treatment Following Spinal Cord Injury" (16 hour program) San Diego Veteran's Administration Medical Center, San Diego, 1989
- "Judgement and Compromise in Professional Practice" American Educational Research Association, San Francisco, 1989
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Allied Services Rehabilitation Hospital, Scranton, PA, 1989
- "Coaching for Student Success-Skills for the Clinical Instructor," University of North Dakota, Allied Services Rehabilitation Hospital, Scranton, PA, 1989
- "Career Survival Skills for Physical Therapists" Northeastern University, Boston-Bouve College, 75th Anniversary Celebration, Boston, 1989
- "Career Planning in Occupational Therapy, " Occupational Therapy Association of California Leadership Conference, Los Angeles, CA, 1989
- "Handling Personality and Style Clashes with Style, " Occupational Therapy Association of California Leadership Conference, Los Angeles, CA, 1989
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Pomona, CA 1989
- "Coaching for Student Success-Skills for the Clinical Instructor," Pennsylvania State University, Mont Alto, PA, 1989
- "Formula for Student Success-Diagnostic and Coaching Skills for the Clinical Instructor," University of Delaware, Department of Physical Therapy, 1989
- "Evolving Strategies for Acute Care Physical Therapy Practice," Invited Presentation (6-hours), American Physical Therapy Association National Conference, Anaheim, 1990.

- "Training New Staff for Clinical Survival," Loma Linda Veteran's Administration Medical Center, Department of Nursing Education, 1990**
- "Communicating Your Needs: Key Survival Skills for Health Professionals," Loma Linda Veteran's Administration Medical Center, Department of Nursing Education, 1990**
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Hartford Hospital, Hartford, CT, 1990**
- "Coaching for Student Success-Skills for the Clinical Instructor," Hartford Hospital, Hartford, CT, 1990**
- "Coaching for Student Success-Skills for the Clinical Instructor," Pacific University Department of Physical Therapy, 1990**
- "Functional Classification Systems for Wheelchair Sports," 19th National Conference on Physical Activity for Exceptional Individuals, Sacramento, CA 1990**
- "Physical and Occupational Therapy Evaluation and Treatment Following Spinal Cord Injury," St. David's Hospital, Austin, TX, 1990**
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, Little Rock, AR 1990**
- "Coaching for Student Success-Skills for the Clinical Instructor," Pacific University School of Optometry, Portland, OR, 1991**
- "Functional Classification for Wheelchair Athletes, Invited Presentation, United States Organization of Disabled Athletes (USODA) Coaches Convention, Tampa, 1991**
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," Clinical Educator's Group of Atlanta, Atlanta, GA, 1991**
- "Coaching for Student Success-Skills for the Clinical Instructor," Clinical Educator's Group of Atlanta, Atlanta, GA, 1991**
- "Altering Beliefs About the Importance of Strategy: An Attributional Intervention" American Educational Research Association, Chicago, 1991**

- "Divergence of New Graduate Preparation and Acute Care Physical Therapy Practice" American Educational Research Association, Chicago, 1991
- "Organizing and Facilitating the Clinical Education Program: A Course for the Center Coordinator," University of Toronto, Department of Rehabilitation Medicine, Toronto, Canada, 1991
- "Coaching for Student Success-Skills for the Clinical Instructor," University of Toronto, Department of Rehabilitation Medicine, Toronto, Canada, 1991
- "Facilitating New Graduate Survival in the Acute Care Setting," Interscholastic Association of Academic Coordinators of Clinical Education of Southern California, Annual Meeting. Los Angeles, 1991
- "Role Conflict with Physicians: Attribution Retraining for Physical Therapists," 11th World Confederation for Physical Therapy, 11th International Congress, London, 1991.
- "Coaching for Student Success," Little Rock Veteran's Administration Medical Center, No. Little Rock, AR, 1991
- "Training New Staff for Clinical Survival," Little Rock Veteran's Administration Medical Center, No. Little Rock, AR, 1991
- "Classification of the Wheelchair Basketball Player," NWBA Player Classification Training Workshops, St. Louis, MO, 1991
- "Coaching for Student Success: Skills for the Clinical Instructor," Baxter Physical Therapy, Deerfield, IL, 1991
- "Diagnosing Student Readiness for Responsibility: Difficult Decisions for the Clinical Instructor," (one day workshop) , Baxter Physical Therapy, Deerfield, IL, 1991
- "Coaching for Student Success, Skills for the Clinical Instructor," Pennsylvania State Physical Therapy Conference, Champion, PA 1991
- "Communicating Your Needs: Key Survival Skills for Health Care Professionals," Pennsylvania State Physical Therapy Conference, Champion, PA , 1991
- "Diagnosing Student Readiness for Responsibility: Difficult Decisions for the Clinical Instructor," Pennsylvania State Physical Therapy Conference, Champion, PA 1991

- "Maximizing Your Center's Educational Programs for Students and Staff,"
University of Louisville, Louisville, KY, 1991
- "Maximizing Your Center's Educational Programs for Students and Staff,"
University of Maryland, College Park, MD, 1991
- "Functional Classification for Wheelchair Athletes, " 8th International Symposium,
International Federation of Adapted Physical Activity, Miami, FL, 1991
- " Shoulder Flexibility and Strength in Wheelchair Athletes: Implications for
Preventing Shoulder Injuries," International Federation of Adapted Physical
Activity, Miami, FL, , 1991
- "Creating Your Own Job Satisfaction in Physical Therapy," Department of Physical
Therapy, Jackson Memorial Hospital, Miami, FL, 1991
- "Wheelchair Sports for Children," Pediatric Rehabilitation, Mailman Center,
University of Miami, Miami, FL, 1991
- "Handling Personality and Style Clashes With Style," Miami Area Clinical
Educator's Forum, Miami, FL, 1992
- "Divergence of Acute Care Physical Therapy Practice and New Graduate
Preparation," Combined Sections Meeting, American Physical Therapy
Association, San Francisco, CA, 1992
- "Organizing and Facilitating the Clinical Education Program: A Course for the
Clinical Coordinator," Baxter Physical Therapy, Schaumburg, IL, 1992
- "Coaching for Student Success: Skills for the Clinical Instructor," Baxter Physical
Therapy, Schaumburg, IL, 1992
- "Role conflict with physicians: Attribution retraining for physical therapists"
Annual Conference American Physical Therapy Association, Denver, CO,
1992
- "Facilitating Student Hypothesis-Oriented Problem Solving," Annual Conference
American Physical Therapy Association, Denver, CO, 1992
- "The Development of Educational Resources: Zone and National Resource
Packages ; International Wheelchair Basketball Federation, Development
Commission Meeting and Coaching Symposium, Edmonton, Alberta Canada,
1992.

"Sportsmedicine Considerations for the Disabled Athlete (16 day program including lectures on functional classification, common disabilities, injury prevention and treatment, international competitions/drug testing, exercise physiology, principles and techniques of training, wheelchair design, positioning and equipment adaptation at multiple sites in Jordan):

Jordan Sports Federation for the Handicapped, Amman, Jordan

Jordan Basketball Federation Coaches Clinics, Amman, Jordan

Mediterranean Zone, International Wheelchair Basketball Federation,
Coaches and Classification Clinic, Amman, Jordan

Yarmouk University, Dept. of Physical Education, Irbid, Jordan

University of Jordan, School of Physical Education, Amman, Jordan

Jordan Sportsmedicine Federation, Amman, Jordan

"The Role of Sportsmedicine Team Members in Sports for Persons with Disabilities,"

Vista '93, International Paralympic Committee Conference, Jasper Park, Canada, 1993

In-Service Presentations

Spinal Cord Injury Functional levels

Autonomic Nervous System in SCI

Mechanisms of Injury in SCI

Activity Analysis for the Quadriplegic Patient

Evaluation and Treatment of the Respiratory Quadriplegic Patient

Glossopharyngeal Breathing

Equipment Considerations in SCI

Interpretation of Arterial Blood Gases

Clinical Preceptor Preparation Workshops

Problem-Oriented Physical Therapy Record and Documentation

Prophylactic Respiratory Care of the Quadriplegic Patient

Wheelchair Sports

Instructional Design/ Media Workshops

Burnout workshop

Managing Overwork syndrome

Module Development Training Workshops

Exercise Physiology and Clinical Implications in SCI
Intern Development Series
Supervisory Training Workshops
Body Mechanics Orientation Program
T.E.N.S.- Practical Considerations
Manual Muscle Testing-Improving Reliability
Writing Measurable Goals for Medical Documentation
Team Building Workshop
Leading Patient Exercise Classes-Organization and Effectiveness
Student Preceptor Stress Workshop
Assertiveness in the Clinical Setting
Managing Patient Behaviors
How to Give Instructional Presentations
Career Development Workshop
Body Mechanics for the Clerical Worker
Support Systems: Keys to Stress Management for the Health Care Worker
Stress Management Series (8 week program)

TEACHING

27. Teaching Awards Received:

1992 Faculty Initiative Award, University of Miami School of Medicine, Division of Physical Therapy

28. Teaching Specialization:

- Physical Therapy Clinical Skills
- Prosthetics, Orthotics, and Spinal Cord Injury

29. Thesis and Dissertation Advising:

Advanced Master's Program:

Chairman, The Effects of Continuous Passive Shields, Patrick,
Motion on Functional Mobility in Lower
Extremity Fractures

Chairman, Priority of Outcome Assessment Variables Sabino, Barbara
Following Physical Therapy Intervention
for Low Back Pain Among Physical
Therapists, Physicians and Claims Adjusters.

Entry-Level Master's Program:

Chairman Wheelchair Trunk Mobility in Paraplegics Kindlin, Christine
Reich, Kathryn
White, Douglas

Chairman Family of Origin and Helping Behavior Papoulidis, Despina
in Physical Therapists Trimble, Teresa

Chairman The Impact of Scuba Diving of Quality of Life in the Disabled. Chastulik, Michelle
Laz, Vincent
Co-Investigators: S. Rine, T Mullis Lipp, Cynthia
Willard, Darci

Chairman Development of a Shoulder Pain and Disability Index for Wheelchair Users. Amar, Thierry
Benbow, Cari
Co-Investigators: Roach, Applegate Genecco, Timothy
Gualano, Jeanine

Committee Characteristics of Patients with Low Back Pain Kalb, Myra
Restaino, Dena

Student Advisees

Class of 93, Entry Level Master's Program:

Michelle Lanouette
James Luck
Richard Mancini
Douglas White
Keith Willer

Class of 94, Entry Level Master's Program

Lyn Heather Simpson
Mindi Uhrman
Michae Via
Megan Walas

Class of 95, Entry Level Master's Program

Chris Taylor
Jamie Smith
Gregory Burnett
Jennifer Scollar
Shawn Hunt

Advanced Master's Program
Stephanie Carter, P.T.

SERVICE

30. University Committee and Administrative Responsibilities:

Curriculum Committee, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1991 to present

Research Committee, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1991 to present

Ad-Hoc Committee, Advanced Master's Program Policies and Procedures, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1991-1992

Ad-Hoc Committee- Ph.D. Program Proposal Development, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1991-1992

Chairperson, Faculty Search Committee, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1992

Coordinator, Continuing Physical Therapy Education Programs, School of Medicine, Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, 1992-present

31. Community Activities

Coach, National Wheelchair Athletic Association, 1973-1981

Coach, National Wheelchair Basketball Association, 1977-1982

Director, Northern California Disabled Sports Association, 1979-1982

Coach, United States Wheelchair Athletic team, International Stoke Mandeville Games, Aylesbury, England, 1981 (women's track)

Chairperson, Player Classification Board, National Women's Wheelchair Basketball Tournament, Sacramento, CA 1982

Player Classification Board, National Wheelchair Basketball Tournament, Minneapolis, MN, 1982

California Chapter American Physical Therapy Association State Conference Committee, 1982

Player Classification Board, National Wheelchair Basketball Tournament, Pomona, CA 1983

Team Physical Therapist, U.S. Wheelchair Athletic team, International Stoke Mandeville Games, Aylesbury, England, 1983

Player Classification Committee, National Wheelchair Basketball Association, (1983-1991)

Sportsmedicine and Science Committee, National Wheelchair Athletic Association, (active 1982-present)

Medical Staff, United States Disabled Sports Team, U.S. Wheelchair Basketball teams, (men and women) Paralympics, Seoul, South Korea, 1988

Player Classification Board, National Wheelchair Basketball Tournament, Hartford, CT, 1989

Team Physical Therapist, U.S. Wheelchair Basketball team, Goodwill Tour, Netherlands, May, 1989

Team Physical Therapist, U.S. Wheelchair Basketball team, World Championships, Stoke Mandeville Sports Complex, England, 1989

Acting Chairperson, Sportsmedicine and Science Committee, National Wheelchair Athletic Association, (active 1989-1990)

Vice Chairperson, Sportsmedicine and Science Committee, National Wheelchair Athletic Association, (1990-present)

Sportsmedicine Coordinator, International Games Preparation Committee, National Wheelchair Athletic Association, 1989-present.

Member, Player Classification Board, National Wheelchair Basketball Tournament, Lexington, KY, 1990

Team Physical Therapist, U.S. Wheelchair Basketball team, Women's World Championships, St. Etienne, France, 1990

Team Physical Therapist, U.S. Wheelchair Basketball team, Men's Gold Cup World Championships, Bruges, Belgium, 1990

Team Physical Therapist, U.S. Wheelchair Basketball teams (men and women), 1990 Pan American Games, Caracas, Venezuela, 1990

International Classification Referee Certification, International Wheelchair Basketball Federation 1990-present

Player Classification Board, National Wheelchair Basketball Tournament, Little Rock, AR, 1991

Chairperson, Player Classification Committee, National Wheelchair Basketball Association, 1991 to present

Physical Therapist, Achilles Track Club, 1988-present

Classification Referee, International Wheelchair Basketball Federation, Stoke Mandeville, World Championships, 1991

Classification Referee, International Wheelchair Basketball Federation, Pre-paralympic Pan American Qualifying Tournament, International Wheelchair Basketball Federation, Mexico City, February 1992.

Chairperson, Player Classification Board, National Wheelchair Basketball Tournament, Albuquerque, NM, March, 1992

Medical Staff, U.S. Disabled Sports Team, 1992 Paralympic Games, Barcelona, Spain, August-September, 1992

Member, International Wheelchair Basketball Federation Executive Committee, 1992- present. (Educational Resources Coordination)

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. **Date:** September 1, 1993
- Social Security Number:** 194-36-4954

PERSONAL

2. **Name:** Carol Marjorie Davis, Ed.D., P.T.
3. **Home Phone:** 305-868-0507
4. **Office Phone:** 305-284-4535
5. **Home Address:** 6770 Indian Creek Drive, PH-H
Miami Beach, Florida 33141
6. **Current Rank:** Associate Professor; Associate Director
for Curriculum
7. **Primary Department:** Orthopaedics and Rehabilitation,
Division of Physical Therapy
8. **Secondary or Joint Appointments:** None
9. **Citizenship:** USA
10. **Visa:** none

HIGHER EDUCATION

11. INSTITUTIONAL

Boston University, Ed.D. Humanistic Education, Psychology
Philosophy; January 1982

University of Alabama in Birmingham, Master's degree program
Counseling. No degree, 1974-1977

Case Western Reserve University, M.S. Physical Therapy
September 1969

Lycoming College, B.A. Biology, Liberal Arts
June 1967

12. NON-INSTITUTIONAL TRAINING

A. Neurorehabilitation

Motor Learning, Sargent College, Shirley Stockmeyer, September, 1970 - May, 1971

PNF, Northwestern University, Dorothy Voss, October, 1970, October, 1973, November, 1973 (Two week courses in which I helped teach labs)

PNF, Maggie Knott, June 1972 (Pre-conference course)

Evaluation and Treatment of Patients with Neuromuscular Dysfunction. Georgia State University, Workshop, Atlanta, Georgia, 1972

Neuroanatomy and Neurophysiology for Clinical Faculty, University of Alabama in Birmingham, May, 1973, September, 1973, February, 1974 (Three 2 day workshops)

Neurophysiological Techniques for Sensory Stimulation (Rood), Shirley Randolph, September, 1976

Several workshops and symposia at APTA National Conferences, too numerous to list. Attended National Conferences yearly from 1970 except for the years 1975, 1978 - 1984

B. Psychology/Philosophy

National Conference - American Psychological Association, New Orleans, 1989; Boston, 1990. Attended several paper and film sessions

Understanding Addiction - Adult Children of Alcoholics. Interface Workshop, (20 hours), Newton, Massachusetts, March, 1986

The Way of the Dream - Jungian View of Symbols. Marie Louise von Franz, Jung Institute, Zurich. Thirty hour workshop, Cambridge, Massachusetts, April, 1985

Psychological Symposium - Stress Management. Dr. Rollo May and Associates, Boston, Massachusetts, September, 1980

Jungian Theory of Human Behavior. Two hour class each week. The Educational Center, St. Louis, June, 1975-August, 1977

Ethical Decision Making in Physical Therapy. Dr. Ruth Purtilo, Georgia State University Workshop, April, 1975

Life Planning Workshop Alabama Training Network, Winter, 1974

Self Management Workshop - Goal Setting. Alabama Training Network, June, 1973

Human Behavior Assessment Workshop, St. Petersburg Junior College, March, 1973

Psychology of Personality, Boston Center for Adult Education, Winter, 1971

Personality Theory and Counseling, Boston University, Spring Semester, 1971

Numerous symposia and presentations at conferences too numerous to list

C. Education/Consultation

Excellence in Educational Leadership. APTA Department of Education Workshop. Fort Lauderdale, Florida, June, 1989

Incorporating Problem Solving in the Classroom. Faculty development seminar by Dr. Pam Catlin, January 19, 20, 1989

APTA Training Institute/Leadership for Post Baccalaureate Entry Level. October, 1987

APTA Training Institute/Follow-up to Rock Eagle Conference, Split Rock, Pennsylvania, 1987

APTA Training Institute/Clinical Education for the 1990s. Rock Eagle, Georgia, October, 1985

Developing Team Leaders for Accreditation On-Site Teams. APTA Department of Education Workshop, Savannah, Georgia, February, 1985

Accreditation On-Site Team Development Workshop. APTA Department of Education, Washington D.C., December, 1980

Developing Problem Solving Curricula. APTA Section for Education Workshop, January, 1978

Consultation Skills. Three day workshop. Alabama Training Network, August, 1976

Planning Curricula In Physical Therapy. APTA Section for Education Workshop. February, 1976

Organizational Development and Process Consultation. Three day workshop. Alabama Training Network, March, 1974

Coordinating Clinical Education in Physical Therapy Curricula. Workshop. Case Western Reserve University, April, 1971

D. Orthopaedics

Myofascial Release I, John Barnes. Fort Lauderdale, Florida, January 5-8, 1989

Spinal Evaluation and Treatment - an Integrated Approach with an Emphasis on Paris. One semester graduate course, University of Miami, Dr. Ira Fiebert, Spring Semester, 1982.

Evaluation and Treatment of the Cervical Spine. Two day workshop, Dr. Sandy Burkhart, Morgantown, West Virginia, March, 1982

Low Back Pain Syndrome, one day workshop, Lemmuel Shattuck Hospital, Boston, Massachusetts, June, 1980

E. Geriatrics

Feldenkrais Method, an Introduction. Dr. F. Wildman, two 32 hour workshops. University of Miami, April, July, 1988

Aging/The Health Care Challenge. Dr. Carole Lewis, Fort Lauderdale, Florida, Spring, 1984

Aging and the Challenge of Rehabilitation. Osa Jackson, Ph.D., P.T., Fort Lauderdale, Florida, June, 1981

Several symposia and presentations at national medical student and physical therapy conferences.

13. CERTIFICATION AND LICENSURE

Physical Therapy, Florida:	#2850	(1980-present)
Physical Therapy, Alabama:	#169	(1972-1979)
Physical Therapy, Massachusetts:	#1669	(1977-1980)
Physical Therapy, Massachusetts:	#731	(1970-1971)

EXPERIENCE

14. ACADEMIC

Associate Professor, Division of Physical Therapy, University of Miami, School of Medicine, 1990-present

Assistant Professor, Division of Physical Therapy, University of Miami School of Medicine, 1987-1990

Assistant Professor, Department of Physical Therapy Boston University, Sargent College, Boston, Massachusetts 1978-1980-, 1985-1987

Assistant Professor, School of Medicine, Department
Family Medicine, University of Miami, 1982-1984

University of Miami, Physical Therapy, 1982-1984
Visiting Professor, Medical College of Georgia, 1977-1982

Boston University, 1978-1980

Member of Graduate Faculty, Physical Therapy
University of Alabama in Birmingham, 1973-1977

Member of Undergraduate Faculty
University of Alabama in Birmingham, 1971-1977

15. NON-ACADEMIC

South Miami Hospital, Miami, Florida
Sr. Physical Therapist, Clinical Instructor, 1982

South Shore Hospital, Miami Beach, Florida
Coordinator, Office of Professional Education,
Coordinator, Fellowship in Clinical Geriatrics, 1982-1984

Self-employed, Home care physical therapist; Consultant to
Family Medicine Associates, University of Miami; Consultant to
various hospitals and universities throughout the USA and
Canada

Cedars of Lebanon Hospital, Miami, Florida
Sr. Physical Therapist, Clinical Instructor, 1981-1982

Hospice, Inc., Dade County, Florida
Physical Therapist, Staff Instructor, 1981

Massachusetts General Hospital, Boston, Massachusetts
Staff Physical Therapist, Clinical Instructor, 1969-1971

16. MILITARY: None

PUBLICATIONS

17. BOOKS AND BOOK CHAPTERS

Books

Davis, CM: Patient/Practitioner Interaction : An Experiential
Manual for Developing the Art of Health Care. Thorofare, New
Jersey: Slack Inc., 1989

Book Chapters

Davis, CM: Bioethics Education in the Health Professions.
Encyclopedia of Bioethics revision due to be published in
1993, MacMillian Publishing Company, New York.

Davis, CM: Caring for the Elderly/Psychosocial Issues. In Lewis, CB (ed): Aging - The Health Care Challenge. Second edition. F.A. Davis, Philadelphia, 1989.

Davis, CM: The Influence of Values on Patient Care - Foundation for Decision Making. In Sullivan, SO and T Schmitz (eds.): Physical Rehabilitation-Evaluation and Treatment Procedures. 2nd ed; F.A. Davis, Philadelphia, 1987

Davis, CM: Influence of Values on Patient Care. In Payton, OD: Clinics in Physical Therapy-Psychosocial Aspects of Patient Care. Churchill, Livingstone, New York, 1986

Davis, CM: The Role of the Physical And Occupational Therapist in Caring for the Victim of Alzheimer's Disease. In Taira, E (ed.): Therapeutic Interventions for the Person with Dementia. New York, Haworth Press, 1986

18. SCIENTIFIC ARTICLES IN REFEREED JOURNALS

Davis, CM: Task analysis in the provision of physical therapy to the elderly client. Physical Occupational Therapy Geriatrics 10:1-15, April, 1992

Davis, CM: What is empathy and can empathy be taught? Physical Therapy, 70: November, 1990

Davis, CM: Philosophical foundations of interdisciplinarity in caring for the elderly, or, the willingness to change your mind. Physiotherapy Practice, 4:23-25, June 1988

Ben-Sorek, S, Davis, CM: Joint mobilization education and clinical use in the United States. Physical Therapy, 68:1000-1004 June, 1988

Davis, CM: The "difficult" elderly patient - Effects on the clinician. Topics in Geriatric Rehabilitation, 3(3), April 1988

Fisher, AG, Kielhofner, G, Davis, CM: Research values of occupational therapists and physical therapists. J Allied Health, April, 1988

Davis, CM: Evaluating student clinical performance in the affective domain. J Phys Ther Ed, 1(1), Winter, 1987

Davis, CM: The role of the physical and occupational therapist in caring for the victim of Alzheimer's Disease. Physical and Occupational Therapy in Geriatrics, 4(4), Summer 1986

Davis, CM: Issue Editor (1:2) Topics in Geriatric Rehabilitation, "Psychosocial Aspects of Aging," Aspen Publishers, January 1986

Davis, CM: Affective education for the health professions facilitating appropriate behavior. Physical Therapy, Vol. 61, November 1981

Davis, CM, Anderson, M, Jagger, D: Competency - what, why and how it affects you. Physical Therapy, Vol. 59, September 1979, pp. 1088-1094

Davis, CM: Discussant for Purtilo RB: The right to health care. Physical Therapy, Vol. 59, June 1979, pp. 731-732

Davis, CM, McKain, A: Clinical education: awareness of our not-Ok behavior. Physical Therapy, Vol. 55, May 1975

Davis, CM: Does clinical practice offer a challenge after graduate school? what's the answer. Physical Therapy, Vol. 53, No. 9, September 1973

19. OTHER WORKS AND PUBLICATIONS:

Davis CM: Evaluating Student Clinical Performance in the Affective Domain. Proceedings - World Confederation for Physical Therapy. London, 1991, p. 315-317

Davis CM: A Closer Look at Empathy. The Moment of Crossing Over Proceedings - World Confederation for Physical Therapy. London, July 1991, p. 722-724

Davis, CM: Joining Hands, Sharing Skills in Facing Personnel Shortages in Physical Therapy the World Over. Published in the Proceedings for the Third International Physiotherapy Congress, Hong Kong, June, 1990 Key Note Speech

Davis, CM: Philosophical Foundations of Interdisciplinarity in Caring for the Elderly Client, or, The Willingness to Change Your Mind. Published in the Proceedings for the World Confederation for Physical Therapy Congress, May 1987

20. OTHER WORKS ACCEPTED FOR PUBLICATIONS:

Davis CM: Therapeutic Touch Make Way for the Right Brain Also. Proceedings - Australian Physiotherapy Association Congress, July, 1992. Accepted for publication in Physical Therapy, American Physical Therapy Association, 1993.

Davis, CM: Bolgla R, Murphy T: A comparison of endurance as measured by the physiological cost index among elderly people; submitted for publication, Physical and Occupational Therapy in Geriatrics, 1993.

PROFESSIONAL

21. RESEARCH PERFORMED

DPH Grant, Conjoint Master's Degree in Curriculum in Clinical Teaching for Physical Therapy, Occupational Therapy, and Nutrition, Sargent College, Boston University, 1978-1980

Ben-Sorek, S, Davis, CM: Joint mobilization education and clinical use in the United States, June, 1988

Fisher, AG, Kielhofner, G, Davis, CM: Research values of occupational therapists and physical therapists, April, 1988

A Phenomenological Description of Empathy as it Occurs Within Physical Therapists for Their Patients, Dissertation for the degree Ed.D., Boston University, Department of Humanistic Studies, January 1982

HEW Grant #1, A13 AH 0010-01, Clinical Facility Workshops, University of Alabama in Birmingham, May 1973-February 1974

An Isokinetic Test of Motor Control in Flexing and Extending the Forearm, Master's Thesis, Case Western Reserve University, 1969

Davis CM, Hecox R, DasVarma J, Giraud J: "Functional independent measurement (RIM) of patients receiving 'Easy Street' as a part of a therapeutic protocol," 1992

Davis CM, Brown M, Kalb M, Restaino D: "Epidemiological characteristics of a selected sample of low back pain patients correlated with diagnosis," 1992

Davis CM, Jackson P, Vance A: "Development of moral judgment in physical therapy students: a comparison between Baccalaureate and Master's Degree students," 1992

Davis CM, DiSipio W, Miyahara MM: "Microelectric nerve stimulation (MENS) and coracoacromial arch pain: the effects after one treatment," 1992

Research Currently in Process

Davis CM, Curtis KA, Trimble J, Papoulidis D: Family of Origin Perceptions of Physical Therapists Correlated with Helping Behavior, 1993

Davis CM, Serrieu E, Laney M, Foti S, Rodier Y: Characteristics of thought in physical therapists as they resolve ethical dilemmas - a phenomenological analysis, 1993

22. EDITORIAL RESPONSIBILITIES

Manuscript Reviewer

Physical Therapy, Journal of the American Physical Therapy Association;

Topics in Geriatric Rehabilitation;

Journal of the Section for Education - APTA

Physical and Occupational Therapy in Geriatrics

Book Reviewer

Physical Therapy, Journal of the American Physical Therapy Association

Editorial Board

Topics in Geriatric Rehabilitation

Editorial Advisory Board, Slack, Incorporated

Associate Consulting Editor - Slack Incorporated

Physical and Occupational Therapy in Geriatrics

23. PROFESSIONAL AND HONORARY ORGANIZATIONS

Member

American Physical Therapy Association, 1967 - present
Section for Education
Section on Research
Section on Geriatrics

Association for Transpersonal Psychology, 1991-present

Gerontological Society of America, 1987 - present

Hastings Center Institute of Society, Ethics and the Life Sciences, 1978-1987

Society for Health and Human Values, 1977-1986

Society of Teachers of Family Medicine, 1982-1985

Physical Therapy - State

Massachusetts:

Usher Committee National Conference, 1971

Secretary, Program Committee, 1970-1971

Delegate to National Conference

Alabama:

Chair, Peer Review Committee, 1972-1974

By-law Committee, Southeast Region, Section for Education, 1974

Delegate to National Conference

Florida:

Delegate to National Conference

Panel Chair - Conference, Research, Membership, Florida Chapter, 1989-1990

Secretary, Florida Chapter, 1988 - 1990

Public Relations Committee, 1982-1984

Delegate to the Board, Southeast Region, 1982-1984

Director at Large, Florida Physical Therapy Association, Board of Directors, 1983-1984

24. HONORS AND AWARDS

1991 Lucy Blair Service Award, American Physical Therapy Association

1985 Barbara White Lecture Award, University of Florida Physical Therapy Program

1980 Dudley Allen Sargent Research Award, Boston University

1979 Outstanding Young Woman in America

1978 Hattie Strong Foundation Award, Loan for Graduate Studies

1977 Practitioner-Teacher Scholar Award, School of Education, Boston University

1968 Elks National Foundation Scholarship

1967 Outstanding Woman on Campus, Lycoming College

1967 Sachem Honor Society, Lycoming College

1967 Who's Who in American Colleges and Universities

25. POST-DOCTORAL FELLOWSHIPS:

None

26. OTHER PROFESSIONAL ACTIVITIES

Physical Therapy - National

APTA Task Force on Delineating Post Baccalaureate Entry Level Knowledge and Skills, 1990-1992

APTA Commission on Accreditation in Physical Therapy Education member, 1987-present

APTA Commission on Physical Therapy Education. Task Force on Improving Content in Geriatrics in Physical Therapy Curriculum, 1989-1990

APTA Section on Geriatrics
Nominating Committee 1987-1990, Chair 1990
Public Relations Committee, Chair 1987-1990

Site Visits: September 1982, May 1983, May 1984, August 1985, November 1985, February 1986, October 1986, March 1987, September 1987

APTA Department of Education: On Site Evaluator for Accreditation in Physical Therapy, 1982-1987

On Site Evaluator Faculty Member for Training Institute, June 1986

APTA Task Force; Physical Therapy Education and Societal Needs-Guidelines for P.T. Education. Department of Education, 1982-1984

APTA Foundation for Physical Therapy: Research Grant Reviewer, 1981-1984

APTA Committee on Physical Therapy Competencies, 1977-1981

APTA Section for Education; Vice President, 1975-1977

APTA Licensure Examination Committee, 1972-1976

APTA Task Force to Develop Process Document for the Essentials for Basic Education in Physical Therapy, 1976

APTA Section for Education Task Force on Clinical Education in the U.S., 1974-1975

Continuing Education Workshops Conducted and Organized

Activities prior to 1985 are sent upon request.

Keynote Speaker - Australian Physiotherapy Association
National Congress, July 6, 1992

Visiting Lecturer - Australian Physiotherapy Association.
National Gerontology Group. Workshops on Caring for the
Elderly in Sydney (June 13, 14, 1992), Brisbane (June 20,
21), Melbourne (June 24), Adelaide (June 27, 28), Perth
(June 30, July 1,)

Workshop Leader - Home Care in Treating the Elderly. Austin,
Texas, May 30, 1992

Workshop Leader - Clinical Educators of Rancho Los Amigos
Hospital, Downey, California, "Transforming Defenses into
Boundaries," April 25, 1992

Speaker - Florida Physical Therapy Association. "Stress in Caring
for the Elderly," Spring Conference, Orlando, Florida, March
29, 1992

Speaker/Workshop Leader - Texas Consortium of Clinical Educators,
"Transforming Defenses into Boundaries," Lubbock, Texas, March
21, 22, 1992

Speaker/Workshop Leader - Professionalism in Health Care,
Scottish Rite Hospital, Atlanta, Georgia, March 3, 1992

Speaker/Workshop Leader - Canadian Physiotherapy Association.
"Transforming Defenses into Boundaries in Clinical
Education," February 29, March 1, 1992

Keynote Speaker - Canadian Physical Therapy Association National
Congress. Toronto, Ontario, February 28, 1992

Speaker - Section for Education, American Physical Therapy
Association, Combined Sections Meeting, San Francisco,
California, "PTA Education - What we teach and how we teach
it," February 6, 1992

Speaker/Workshop Leader - Health Prevention and Fitness.
St. Francis Hospital Family Workshop, Miami Beach, Florida,
February 1, 1992

Speaker/Workshop Leader - Caring for the Caregiver in Geriatrics.
St. Francis Hospital Family Workshop, Miami Beach, Florida,
January 31, 1992

Speaker - Therapeutic Presence. American Association of Cardio-
vascular Rehabilitation. Annual Conference. Long Beach,
California, November 8, 1991

Keynote Speaker - APTA Leadership Conference. Today's Concerns -
Tomorrow's Realities. Austin, Texas, October 19, 1991

Speaker - Professionalism as a Staff Therapist's Goal. St. Joseph's Hospital, Atlanta, Georgia, October 4, 1991

Workshop Leader - Clinical Education - Transforming Defenses into Boundaries, Newington Children's Hospital, Newington, Connecticut, September 21, 1991

Workshop Leader - Workshop for Health Professionals from Dysfunctional Families. Fort Lauderdale, September 13, 14, 1991

Speaker - Role of the Physical Therapist in Caring for Elderly Patients. Florida Physical Therapy Association, Fort Lauderdale, August 24, 1991

Speaker - Coming Full Circle Geriatrics Conference. Managing the Stress of Caring for Elderly People. August 16, 1991

Workshop Leader - Effective Clinical Education. University of New Mexico Physical Therapy Program, May 31 - June 1, 1991

Speaker - Four Presentations at the World Confederation for Physical Therapy. London, June, 1991

Speaker - Wellness and Fitness in Geriatrics. Miami Area Geriatric Research and Education, Key Largo, Florida, May 24, 1991

Speaker - Geriatrics Certification Preparation Course. APTA Orlando, Florida, January 29, 30, 1991.

Speaker - The Role of the Physical Therapist, in Home Health. Villa Maria Nursing Center, Fort Lauderdale, Florida. January 25, 26, 1991

Consultant - Country of Belize, Central America. Representative from the Florida Association of Volunteer Agencies/Caribbean. January 5-12, 1991

Speaker - Therapeutic Presence. South Miami Hospital, January 6, 1991

Speaker - Barrier Awareness Day. City of Coral Springs, Florida, November 9, 1990

Workshop Leader - Clinical Education - Setting Appropriate Boundaries in Affective Evaluation of Student Performance. New York Clinical Educators' Forum, Syracuse, New York, October 27, 1990

Workshop Leader - Empowering Women in the Workplace. Providence, Rhode Island, September 28-29, 1990

Keynote Speaker - 3rd International Congress of Physiotherapy, Hong Kong. Joining Hands, Sharing Skills in Facing Personnel Shortages Around the World, June, 1990

Speaker - Geriatrics as a Specialization in Physical Therapy. FPTA Student Conclave, Spring Conference, Tampa, Florida, March 10, 1990

Workshop Leader - Home Care of the Elderly. Fort Lauderdale, Florida, August 11, 1990

Speaker/Workshop Leader - Health Care in the 1990s. Palm Beach Community College. Sponsored by University of Miami MAGEC program, March 29, 30, 1990

Speaker - Psychology Grand Rounds. Empathy. Jackson Memorial Hospital, Miami, Florida, March 16, 1990

Workshop Leader - Team Building. EW Martinat Rehabilitation Center, Winston-Salem, North Carolina, February 22, 23, 1990

Speaker - Orthopedics and Rehab Grand Rounds. Empathy - Misunderstood Force in Patient Care. Jackson Memorial Hospital, University of Miami School of Medicine, Miami, Florida, January 11, 1990

Team Member - International Network in Clinical Epidemiology, Rockefeller Foundation. Two week fact finding tour of University of the Philippines, Manila and Gadjra Mata University in Yopyakarta, Indonesia to ascertain the use of nonphysicians in epidemiology patient care and research. November/December, 1989

Speaker - The Art of Clinical Education. Holy Cross Hospital, Fort Lauderdale, Florida, October 14, 1989

Speaker - Disability Day in Coral Springs. May 12, 1989

Workshop Leader - Parkinson's Disease/Current Treatment Approaches. Staff Builders, Inc., May 4, 1989

Speaker - Psychosocial Aspects of Caring for the Elderly. Staff Builders, Inc, Boston, Massachusetts, May 4, 1989

Workshop Leader - Sexuality and Aging. Madison, Wisconsin, April 21, 1989

Speaker - Psychosocial Aspects of Geriatric Care. Madison General Hospital Conference. Madison, Wisconsin, April 21, 1989

Speaker - The Art of Physical Therapy. Student Forum, Florida Chapter, APTA; Spring Conference, Miami Beach, Florida, March 1989

Speaker/Workshop Leader - Caring for the Patient with Alzheimer's Disease. The Conference Center, Albany, New York, March 18, 1989

Speaker - Basic Clinical Education Methods. Certification Course.
Florida Chapter, APTA. Miami Beach, Florida, March, 1989

Speaker - Workshop Leader, Basic Clinical Education Methods.
Maryland, Delaware Clinical Educators Forum, University of
Maryland Medical School, Baltimore, Maryland, December 2, 3,
1988

Speaker/Workshop Leader - Transforming Defenses into Boundaries in
Clinical Education. New York Clinical Educators Forum, New
York University, October 29, 1988

Speaker - Dade County Clinical Education Forum. Transforming
Defenses into Boundaries, October 22, 1988

Workshop Leader - Home Care for the Elderly. The Conference
Center, Albany, New York, October 8, 1988

Speaker - Workshop Leader, Golden Pond Revisited. Education
Resource Associates, Boston, Massachusetts, October 3-5,
1988

Speaker - Workshop Leader, Assertiveness Training. Education
Resource Associates, Boston, Massachusetts, September 30,
October 1, 1988

Speaker - The Role of the Physical Therapist in Caring for the
Elderly. The Conference Center, Albany, New York, March,
19, 1988

Speaker - Women in Physical Therapy. Florida Chapter, APTA,
Spring Conference, Tampa, Florida, March 4, 1988

Speaker - Clinical Education Methods for Physical and
Occupational Therapists. Advanced Education Seminars,
St. Petersburg, Florida, January 21-23, 1988

Speaker/Team Leader - Professional Seminar Consultants, Sino-
American Physical Therapy Seminar, Hong Kong and Canton,
China, November 9-19, 1987

Speaker/Workshop Leader - Psychosocial Aspects of Caring for the
Elderly - Beyond Golden Pond, Educational Resource Associates,
Boston, Massachusetts, June 19-20, 1987

Speaker - Clinical Education Methods, Department of Physical
Therapy, Braintree Hospital, Braintree, Massachusetts,
June 16, 1987

Speaker - The Role of the Physical Therapist with Confused Elderly
Patient, Youville Hospital, Cambridge, Massachusetts, June 12,
1987

Speaker - Assertiveness Training for Physical Therapists, Department of Physical Therapy, Massachusetts General Hospital, Boston, Massachusetts, June 10, 17, 1987

Speaker/Workshop Leader - Clinical Education - Innovative Methods in Clinical Teaching, U.S. Army Academy of Health Sciences, San Antonio, Texas, June 2-3, 1987

Speaker - Handicapped Awareness Day, Coral Springs Community Association, Coral Springs, Florida, May 7, 1987

Speaker - The Influence of Values on Decision Making in Patient Care, Boston University School of Nursing Rehabilitation Forum, April 21, 1987

Speaker/Workshop Leader - Professional Socialization of Students, University of Oklahoma Physical and Occupational Therapists, November 13, 1986

Speaker/Workshop Leader - Professional Socialization in Physical Therapy Education, Denver Consortium of Clinical Educators, Denver, Colorado, October 11, 12, 1986

Graduation Speaker - Northwestern University, Physical Therapy Program, October 4, 1986

Speaker/Workshop Leader - Coping with Caring for the Elderly, Allied Services for the Handicapped, Scranton, Pennsylvania, September 6, 1986

Speaker/Workshop Leader - The Role of the Physical Therapist in Health Care, Continuing Education for Hospital Administrators and Physical Therapists, Omaha, Nebraska, July 11, 12, 1986

Speaker/Workshop Leader - Aging in America, Connecticut, June 2, 1986; New Jersey, June 3, 1986; Philadelphia, June 4, 1986

Speaker/Workshop Leader - Role of the Physical Therapist in Home Care for the Elderly, New York Chapter APTA State Conference, Buffalo, New York, May 2, 1986

Speaker - Professional Socialization in Physical Therapy, Chapter APTA district meeting, Boston, Massachusetts, April 22, 1986

Speaker/Workshop Leader - Clinical Education Methods, Wisconsin Clinical Educators Conference, April 22, 1986

Speaker/Workshop Leader - The Role of the Physical Therapist in Caring for the Elderly - Aging in America, Long Island, New York, April 16, 1986; Los Angeles, California, April 17, 1986; San Francisco, California, April 18, 1986

Speaker/Workshop Leader - Clinical Faculty Conference, Indiana University, Indianapolis, Indiana, March 13-14, 1986

- Speaker/Workshop Leader - Clinical Education Seminar, Loria and Goldfarb Associates, Boston, Massachusetts, February 7-8, 1986
- Speaker - Post-Baccalaureate Entry and It's Affect on the Role of the Physical Therapist Assistant, Suffolk County Community College, Long Island, New York, January 29, 1986
- Speaker - Aging in America-The Role of the Physical Therapist in Caring for the Chronically Ill and Aging, Bronx, New York, September 18, 1985; Boston, Massachusetts, September 19, 1985; Buffalo, New York, November 6, 1985; Albany, New York, November 7, 1985; Syracuse, New York, November 8, 1985
- Keynote Speaker - Implication for Change - Clinical Education Physical Therapy After 1990, workshop for didactic and clinical faculties around the U.S., Rock Eagle, Georgia, October 28-31, 1985
- Speaker/Tour Guide - Tour to Kenya, East Africa for Physical Therapists, Professional Seminar Consultants, October 6-20, 1985
- Consultant to Curriculum - Andrews University Physical Therapy Program, Berrian Springs, Michigan, Fall 1985
- Speaker - Women-Transcending Our Scripts, Lutheran Church Woman Retreat, Natick, Massachusetts, September 21, 1985
- Graduation Speaker - Department of Physical Therapy, University of Florida, Gainesville, Florida, August 9, 1985
- Speaker/Workshop Leader - Art and Science of Clinical Education, Medical University of South Carolina, Departments of Physical and Occupational Therapy, June 11-12, 1985
- Speaker/Workshop Leader - Boston Clinical Educator's Consortium, The Art and Science of Clinical Education, Boston, Massachusetts, May 23, 1985
- Keynote Speaker - Eastern Illinois Chapter APTA, Education for the 1990s - Post curriculum development Spring, 1985
- Consultant for Curriculum - Simmons College, Department of Physical Therapy, Post-baccalaureate curriculum development, Spring 1985
- Speaker/Workshop Leader - Clinical Education for the 1990s, Texas Consortium for Physical Therapy Clinical Education, Houston, Texas, March 29-30, 1985
- Speaker/Workshop Leader - Post-baccalaureate level clinical education, Oakland University, Rochester, Michigan, March 15-17, 1985

Speaker - Role of the Physical Therapist in Caring for Victims of Alzheimer's Disease, APTA Mid Winter Conference, Orlando, Florida, February 6, 1985

Speaker/Workshop Leader - The Art and Science of Clinical Education, Holy Cross Hospital, Fort Lauderdale, Florida, January 25-26, 1985

TEACHING

27. AWARDS: none

28. Teaching Specialization (courses taught):

ELM I

Spring Semester

PTS 533 3 - Commun. in P.T.

29. THESIS AND DISSERTATION ADVISING

Thesis Committee - "Physical Therapists Perception of Family of Origin and Effective Helping Behaviors," Davis CM, Curtis K, Trimble T, Papaulodis D, 1993

Doctoral Dissertation Committee: N. Horace Mann III Biomedical Engineering, University of Miami/Error Propagation versus Energy Minimization Networks for Pattern Recognition in Serial Patient Pain Drawings for Low Back Pain, 1989-present

Thesis Committee - "Development of Moral Judgment in Physical Therapy Students - A Comparison Between Baccalaureate and Master's Degree Entry Level Students in Physical Therapy," Davis CM, Vance A, Jackson P, 1992

Thesis Committee - "Epidemiological Characteristics of a Selected Sample of Low Back Pain Patients Correlated with Diagnosis," Davis CM, Kalb M, Restaino D, 1992

Thesis Committee - "Functional Independent Measurement (FIM) of Patients Receiving, 'Easy Street' as Part of a Therapeutic Protocol in Rehabilitation Following Cerebral Vascular Accident," Davis CM, DasVarma J, Giraud J, 1992

Thesis Committee - "The Relationship between Straight leg Raising. Pain and Percent Compromise from a Herniated Disc," Davis CM, Raymond J, Steubs G, Publication 1992

Thesis Committee - "Microelectric Nerve Stimulation (MENS) and Coracoacromial Arch Pain: The Effects After One Treatment," Davis CM, Miyahara M, Disipio L, 1992

Doctoral Committee: Helen L. Masin, M.M.Sc., P.T., University of Miami School of Education, 1991-present

Doctoral Committee: Meredith E. Drench, M.S., P.T.; Union for Experimenting Colleges and Universities, 1989-present

University of Miami, Graduate Programs in Physical Therapy, 1988-present

Thesis Committee - "The Effectiveness of Helping Skills in Physical Therapists Correlated With Perceptions of Family Of Origin," Davis CM, Maza J, Vosberg S, 1991

Thesis Committee - "The Effects of a Walking Program on Endurance as Measured by the Physiological Cost Index (PCI) Among Elderly People," Davis CM, Bolgla R, Murphy T, 1991

Thesis Committee - "Mobilization in Physical Therapy in the US." Davis CM, Ben-Sorek S., 1987

Thesis Committee - "The Role of Physical Therapy in Obstetric Care." Davis CM, Hartranft C, Teitelman J, Carter V, Kleinman J, 1987

Boston University, Sargent College, 1978-1980, 1985-1987

Committee member for several theses, University of Alabama in Birmingham, 1974-1977

SERVICE

30. UNIVERSITY COMMITTEE AND ADMINISTRATIVE RESPONSIBILITIES:

University of Miami, Division of Physical Therapy: Curriculum Committee, Clinical Education Committee, Graduate Assistantship Committee, Committee on Academic Review, 1987-present

Sargent College, Boston University, Committee on Academic Policies and Procedures, Physical Therapy, 1986-1987

Boston University Faculty Committee, Appointment, Promotion and Tenure Committee, 1986-1987

Sargent College Faculty Council, 1986-1987

Sargent College, Boston University, Co-Chair, Ad Interim, June, 1985 - June, 1986

University of Alabama, Birmingham: Chair, Admissions Committee, 1973-1977

Physical Therapist faculty, Miami Area Geriatric Education Committee (MAGEC) 5 hours a week administrating and teaching in interdisciplinary geriatric grant funded program for four colleges and universities in Miami

31. COMMUNITY SERVICE

Outreach Counselor, Telephone Counselor, Suicide Prevention Program, Birmingham, Alabama

Deacon, University Lutheran Church, Cambridge, Massachusetts

National Organization for Women, Boston Chapter, Dade County Florida Chapter

Mental Health Association of Dade County, Florida Council on Aging

South Florida Oncology Group

Health Crisis Network, Dade County Director of Community Education for AIDS education

UNIVERSITY OF MIAMI
CURRICULUM VITAE

1. **Date:** September, 1993
Social Security #: 095-44-0093

PERSONAL

2. **Name:** Ira M. Fiebert
3. **Home Phone:** (407)-241-5894
4. **Office Phone:** (305) 284-4535
5. **Home Address:** 3874 NW 52 Street
Boca Raton, FL 33496
6. **Current Academic Rank:** Adjunct Associate Professor
7. **Primary Department:** Orthopaedics and Rehabilitation
Division of Physical Therapy
8. **Secondary or Joint Appointments:** None
9. **Citizenship:** USA
10. **Visa Type:** None

HIGHER EDUCATION

11. **Institutional:**

Queens College, New York, NY
1970-1972, General courses

Hunter College, New York, NY
1972-1974, B.S. August 1974, Physical Therapy

Long Island University, New York City, NY
1974-1976, M.S., August 1976, Physical Therapy

Georgia State University, Atlanta, GA
1979-1981, Ph.D., August 1981, Educational Administration

12. Non-Institutional:

Seminar in Orthopaedic Physical Therapy, Mr. Stanley Paris, R.P.T., New York Chapter American Physical Therapy Association, White Plains, August 1975

Basic Mobilization - Introductory Course, Mr. Ola Grimsby (Norway), Institute of Postgraduate Physical Therapy, New York, April 1976

Advanced Course in Thoracic, Lumbar and Pelvic Mobilization, Mr. Freddie Kaltenborn (Norway) and Mr. Stanley Paris, R.P.T., Institute of Postgraduate Physical Therapy, Vail, January 1977

Motor Development and Physical Therapy Techniques, Kinesthetic and Vestibular Stimulation Workshop, Ms. Cynthia Stone, L.P.T. and Ms. Betty Kilday, O.T.R., Callier Center, Little Rock, January 1977

Introduction: Neuro-Development Treatment (Bobath) Approach to Cerebral Palsy, Ms. Joan Day Mohr, R.P.T., University of Tennessee, Memphis, February 1977

Neurological Basis for Rehabilitation Techniques, Dr. Josephine Moore, University of Central Arkansas, Conway, March 1977

Clinical Application of Biofeedback and Relaxation Techniques in the Management of Pain, Ms. Florence C. Johns, R.P.T. and Ms. Brenda Gunther, R.P.T., Arkansas Chapter American Physical Therapy Association, Arkadelphia, March 1977

Care of the Spinal Cord Disabled, University of Arkansas for Medical Sciences, Little Rock, March 1977

Third International Conference of the International Federation of Manual Therapy, Vail, May 1977

Physical Examination of the Spine and Extremities, Dr. Stanley Hoppenfeld, Albert Einstein Medical Center, Bronx, September 1978

Physical Therapy in Dentistry, Mr. Mariano Rocabado (Chile), Institute of Postgraduate Physical Therapy, Vail, January 1978

Advanced Spinal Mobilization Head and Neck, Mr. Stanley Paris, R.P.T., Mr. David Lamb (Canada) and Mr. Mariano Rocabado (Chile), Institute of Postgraduate Physical Therapy, Vail, January 1978

Wholistic Medicine, Dr. Ed Stiles, Institute of Graduate Health Sciences, Atlanta, September 1978

Designing Competency Based Clinical Education Programs, Medical College of Georgia, Augusta, March 1979

Muscle Balancing, Ms. Anna Signol (England), Institute of Graduate Health Sciences, Atlanta, June 1979

Non-traditional Student Seminar, Georgia State University, Atlanta, May 1980

Planning for Physical Therapy in the 1990's, American Physical Therapy Association, Washington, D.C., May 1982

Conservative Management of the Spine, Mr. Barrett Dorko, R.P.T., Therapy Seminars, Inc., Miami, September 1982

Recent Advances in Traction, Mr. Duane Saunders, R.P.T., Chattanooga Corporation, Orlando, January 1983

High Voltage Galvanic Stimulation Theory and Application, Mr. Clyde Killian, R.P.T., and Mr. William Quillen, R.P.T., Chattanooga Corporation, Orlando, January 1983

Podiatric Physical Therapy, Mr. Michael Wooden R.P.T., Clinical Education Associates, Inc., Orlando, May 1983

Interferential Current Therapy Workshop, Dr. Achim Hansjuergens (Germany), Advanced Physical Therapy Equipment Company, Ft. Lauderdale, May 1984

Isokinetic Testing and Rehabilitation of Back Disability Symposium, Cybex Division of Lumex, Inc., New Orleans, November 1984

The Challenge of the Lumbar Spine, 6th Annual, New Orleans, December 1984

Radiographic Assessment for the Clinician, Robert D. Karl, Jr., M.D., Orthopaedic Section, American Physical Therapy Association, Orlando, February, 1985

Scientific Basis of Manipulation, Scott Haldeman, M.D., Ph.D., F.R.C.P., Nordisk Spesialgruppe for Manuall Terapi, Oslo, November 1985

Financial Planning and Control for the Physical Therapist in Private Practice, Roy Dillon, D.B.A., American Physical Therapy Association, Chicago, June 1986

The Influence of the Nervous System in Musculoskeletal Pain Syndromes, Steve Rose, Ph.D., P.T., Florida Physical Therapy Association, Orlando, September 1986.

Auto-Trac Seminar, Sandy Burkhart, Ph.D., P.T., Chattanooga Corporation, Miami, September 1986.

Myofascial Release Seminar I, John Barnes, P.T., Pain and Stress Control Center, Captiva Island, January 1987

Doing Business in the '80s, Private Practice Section, American Physical Therapy Association, Chicago, June 1987.

Seminar in Maxillo-Facial Dysfunction, Marino Rocabado, P.T., Annette Iglarsh, P.T., Ph.D., M.B.A., Meeting Planners, Inc., Stuart, Florida, May 1989

Cranial-Sacral I, Sam Kegress, P.T., M.S., A.T.C., University of Indianapolis, Indiana, March 1990

Spine Management, Scoliosis Association Spinal Conference, 1993

12. **Certification, Licensure:**

New York, 1974 - Present (#004233)

Arkansas, 1976 - 1978

Georgia, 1978 - 1982

Florida, 1982 - Present (#003255)

EXPERIENCE

14. Academic:

Assistant Professor, Department of Physical Therapy, University of Central Arkansas, Conway, Arkansas, 1976-1978

- Coordinated student clinical internships. Member of the physical therapy admissions committee. Developed new undergraduate courses. Instructed courses in most areas of physical therapy practice.

Director of Curriculum Development, Institute of Graduate Health Sciences, Atlanta, Georgia, 1978-1980

- Developed the first free-standing Master of Science Degree granting program in Orthopaedic Physical Therapy in this country.

Director and Associate Professor, Program in Physical Therapy, School of Education and Allied Professions, University of Miami, Coral Gables, FL 1981-1985

- Administrated an entry-level physical therapy program. Developed the document and received programmatic accreditation. Instructed graduate and undergraduate courses. Developed graduate physical therapy programs.

Associate Professor, Department of Physical Therapy, Florida International University, Miami, FL, September, 1985-1988

- Member of the physical therapy admissions committee. Developed new undergraduate courses. Instructed courses in most areas of physical therapy practice.

Adjunct Associate Professor, Division of Physical Therapy, University of Miami, School of Medicine, Department of Orthopaedics and Rehabilitation, Coral Gables, FL, 1988-Present

- Redesign and Instruct Research Sequence.
Research Endeavors.
Instruct Courses in Spinal Evaluation & Management.
Advise Graduate Students.

15. Non-Academic:

Physical Therapy Associates, P.A., 6280 Sunset Drive, Suite 606, Miami, FL 33143; 1984-Present

- Co-administrate an out-patient physical therapy practice. Evaluate and treat patients with orthopaedic dysfunctions.

Physical Therapy Institute, Inc., 16244 South Military Trail, Suite 310, Delray Beach, FL 33484; 1988-Present

- Co-administrate an out-patient physical therapy practice. Evaluate and treat patients with orthopaedic dysfunctions.

Staff Physical Therapist, Kingsbrook Jewish Medical Center, Brooklyn, New York, 1974-1976

- Evaluated and treated patients with various diseases and dysfunctions. Coordinated inservice and student programs.

Staff Physical Therapist, Atlanta Back Clinic, Atlanta, Georgia, 1979-1980

- Evaluated and treated patients with various orthopaedic dysfunctions of the spine.

16. Military: None**PUBLICATIONS****17. Books and Monographs Published:**

Fiebert I: Cervical Evaluation, Treatment and Mobilization - Course Manual. Physical Therapy Associates, P.A., November 1985

Fiebert I: Lumbar Evaluation, Treatment and Mobilization - Course Manual. Physical Therapy Associates, P.A., January 1986

Fiebert I: Private Practice Management in Physical Therapy. Churchill Livingstone, April 1990

Fiebert I: Cervical Evaluation, Treatment and Mobilization - Course Manual. Physical Therapy Institute Inc., April 1992

Fiebert I: Lumbar Evaluation, Treatment and Mobilization - Course Manual. Physical Therapy Institute Inc., May 1992

18. **Juried or Refereed Journal Articles and Exhibitions:**

Book Review: Clinical Decision Making in Physical Therapy, Wolf SL (ed), Philadelphia, F.A. Davis Company, 1985. Journal of Orthopaedic and Sports Physical Therapy, 7 (6): 341, May 1986.

Fiebert I., Brown E.: "Vestibular stimulation to improve ambulation after a cerebral vascular accident." Physical Therapy 59 (4): 423-426, April 1979

Wise H., Fiebert I., Kates J.: "EMG biofeedback as treatment for patellofemoral pain syndrome." Journal of Orthopaedic and Sports Physical Therapy 6 (2): 95-103, September/October 1984

Fiebert I., Hardy C., Werner K.: "Electromyographic analysis of the quadriceps femoris during isokinetic eccentric activation." Isokinetics and Exercise Science 2 (1): 18-23, 1992

Fiebert I., Haas J., Dworkin K., LeBlanc W.: "A comparison of medial versus lateral hamstring electromyographic activity and force output during isometric contractions." Isokinetics and Exercise Science 2 (2); 47-55, 1992

Fiebert I., LeBlanc W., McGuane S., Schnoes C., Strickland K.: "The relationship of electromyographic activity and force of the vastus medialis oblique and vastus lateralis muscles during maximal isometric knee extension contractions." Isokinetics and Exercise Science 2 (3): 1-8, 1992

Fiebert, Haas, Dworkin, LeBlanc: A comparison of medial versus lateral hamstring electromyographic activities and force output during isometric contractions. Isokinetics and Exercise Science 2(2), 1992

Fiebert, Fuhri, New: Elbow, forearm, and wrist passive range of motion in persons aged sixty and older. Physical and Occupational in Geriatrics. 10(4), 1992

Fiebert, Lebwohl: Rehabilitation for patients with lumbar spinal stenosis. Orthopaedic Physical Therapy Clinics of North America, 1993

19. Other Works and Publications:Non-refereed Journals

Fiebert I., Rohan J., Wise H., Parry K.: "Communicating with physicians." Clinical Management 3 (I): 26-27, Winter 1983

Wise H., Fiebert I.: "Burnout." Clinical Management 3 (3): 14-15, Fall 1983

Fiebert I., Barbe R.: "Private practitioners ARE different." Whirlpool 6 (2): 14-16, Summer 1983

Becker G., Fiebert I.: "Research made easy." Update, March 1984

Benner, E., Fiebert I., Eldemire J.: "Quantity of research in entry level physical therapy." Physical Therapy Education, Winter 1985

Fiebert, I., Wise, H., Paul, C., Kadel, K., Hays, K.: "Don't baby your back." Whirlpool 10 (1): 16-19, Spring 1987

Fiebert, I., Rosen, E., Wise, H., Rohan, J.: "Functional movement patterns for the geriatric population." Geri Topics 10 (2): 12-19, Spring 1987

20. Other Works Accepted for Publication:

Fiebert: An overview of functional progressions in the rehabilitation of low back patients. Journal of Back and Musculoskeletal Rehabilitation, accepted for November 1993.

Fiebert, Spyropoulos, Peterman, Dotson: Thoracic segmental flexion during cervical forward bending. Journal of Back and Musculoskeletal Rehabilitation, accepted for November 1993

PROFESSIONAL

21. **Funded Research Performed:** None

22. **Editorial Responsibilities:** None

23. **Professional and Honorary Organizations:**

Member, American Physical Therapy Association, 1972-Present

Member, Orthopaedic, Education, & Private Practice Sections, American Physical Therapy Association, 1976-Present

Member, Research Committee, Orthopaedic Section, American Physical Therapy Association, 1981-1986

Research Chairman, Florida Physical Therapy Association, 1982-1984

Elected Member, House of Delegates, American Physical Therapy Association, 1986, 1987

Subject Matter Expert, Orthopaedic Section, American Physical Therapy Association, 1986

Elected Chairman, Florida Physical Therapy Association Private Practice Special Interest Group, 1986-1988

Member, Florida Physical Therapy Association

24. **Honors and Awards:** None

25. **Post-Doctoral Fellowships:** None

26. **Other Professional Activities:**

Seminars Presented:

Neurological Evaluation and Treatment, Physical Therapists, in Arkansas, Little Rock, December 1976

Neurological Evaluation and Treatment, East Michigan District American Physical Therapy Association, Detroit, October 1977

Evaluating the Neurologically Involved Child, American Physical Therapy Association, Atlanta, June 1979

Neurological Evaluation and Treatment, Institute of Graduate Health Sciences, Atlanta, July 1979

Neurological Evaluation and Treatment, University of Alabama, Birmingham, October 1979

Upper Extremity Evaluation and Treatment, Hawaii Chapter American Physical Therapy Association, Oahu, November 1979

Neurological Evaluation and Treatment, Hawaii Chapter American Physical Therapy Association, Oahu, November 1979

Orthopaedic Physical Therapy Scope of Practice and Education, Mid-Winter Conference, American Physical Therapy Association, New Orleans, February 1980

Structuring Orthopaedic Lectures, Mid-Winter Conference, American Physical Therapy Association, Reno, February 1980

Evaluating the Neurologically Involved Adult, American Physical Therapy Association, Anaheim, June 1982

Spinal Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, March 1983

Physical Therapists' Career Choices, Loci of Control and Job Perceptions, American Physical Therapy Association, Kansas City, June 1983

Spinal Evaluation, Treatment and Mobilization, Jackson Memorial Hospital, Department of Physical Therapy, Miami, FL 1983

Cervical Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, September 1983

Lumbar Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, February 1984

Extremity Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, April 1984

Extremity Evaluation, Treatment and Mobilization, Jackson Memorial Hospital, Physical Therapy Department, Miami, May 1984

Physical Therapy, Occupational Therapy and Nursing Students: A Comparison, American Physical Therapy Association, Las Vegas, June 1984

Quantity of Research Instruction in Entry-Level Physical Therapy Programs, American Physical Therapy Association, Las Vegas, June 1984

Physical Therapy and Physical Therapist Assistant Students: A Comparison, American Physical Therapy Association, Las Vegas, June 1984

Cervical Evaluation, Treatment and Mobilization, Indiana Chapter American Physical Therapy Association, Indianapolis, Indiana, July 1984

Lumbar Evaluation, Treatment and Mobilization, South Miami Hospital, Physical Therapy Department, Miami, September 1984

Cervical Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, October 1984

Four Models of Clinical Education of the Future, Mid-Winter Conference, American Physical Therapy Association, Orlando, February 1985

Cervical Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, February 1985

Lumbar Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, March 1985

Lumbar Evaluation, Treatment and Mobilization, Palmetto General Hospital, Physical Therapy Department, April 1985

Extremity Evaluation, Treatment and Mobilization, St. John's Nursing and Rehabilitation Center, Ft. Lauderdale, June 1985

Lumbar Evaluation, Treatment and Mobilization, Cedars Medical Center, Physical Therapy Department, July 1985

Cervical Evaluation, Treatment and Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, November 1985

Lumbar Evaluation, Treatment and Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, February 1986

Lumbar Evaluation, Treatment and Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, July 1986

Cervical Evaluation, Treatment & Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, September 1986

Presenting a Professional Image, Student Conclave Florida Chapter American Physical Therapy Association, Miami Beach, Florida, March 1987

Cervical Evaluation, Treatment & Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, April 1987

Extremity Evaluation, Treatment & Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, May 1987

Lumbar Evaluation, Treatment & Mobilization, St. John's Rehabilitation Hospital and Health Care Center, Ft. Lauderdale, May 1987

Cervical Evaluation, Treatment & Mobilization, Administrative Rehabilitation Associates, Ft. Lauderdale, July 1987

Lumbar Evaluation, Treatment & Evaluation, Administrative Rehabilitation Associates, Ft. Lauderdale, August 1987

Cervical Evaluation, Treatment & Mobilization, Administrative Rehabilitation Associates, Ft. Lauderdale, October 1988

Lumbar Evaluation, Treatment & Evaluation, Administrative Rehabilitation Associates, Ft. Lauderdale, November 1988

Cervical Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale, September 1989

Lumbar Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale, October 1989

Lumbar Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale September 1990

Cervical Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale November 1990

Lumbar Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale September 1991

Cervical Evaluation, Treatment & Mobilization, Physical Therapy Institute, Inc., Ft. Lauderdale November 1991

Spinal Evaluation, Mobilization, and Treatment, Physical Therapy Seminars, Indianapolis & Fort Lauderdale, 1992

Conservative Management of the Spine, Scoliosis Association Spinal Conference, 1993

Research:

Spinal Segmental Motion During Passive Backward Bending

Geriatric Cervical Range of Motion as Measured by the CROM

EMG and Torque of the Medium Lateral Hamstrings During Concentric Isokinetic Contractions

Conferences:

American Physical Therapy Association, National Conference, 1993

Florida Physical Therapy Association, Spring Conference, 1993

Florida Physical Therapy Association, Fall Conference, 1993

TEACHING

27. **Teaching Awards Received:**

Faculty Member of the Year, Division of Physical Therapy, University of Miami, 1990

Faculty Member of the Year, Division of Physical Therapy, University of Miami, 1993

28. **Teaching Specialization:**

- Management of the Spine
- Orthopaedics

29. **Thesis and Dissertation Advising:**

Wise, HH: Physical Therapists with Doctoral Degrees: Job Satisfaction and Organizational Commitment (Dissertation), University of Miami, School of Education and Allied Professions, 1984.

Hayes, SH: B.S.- v.s. M.S.-Prepared Physical Therapists: Differences in Perceived Educational Preparation and Professional Values (Dissertation), University of Miami, School of Education, 1992.

Student Advising, Division of Physical Therapy, 1993

SERVICE

30. University Committee and Administrative Responsibilities:

Member, Undergraduate Studies Committee, School of Education and Allied Professions, University of Miami, 1981-1984

Graduate Faculty Membership, University of Miami, 1984-1985

Member, Physical Therapy Admissions Committee, School of Health Sciences, Florida International University, 1986-Present

Member, Faculty Council, School of Health Sciences, Florida International University, 1986

Member, Physical Therapy Research Committee & Curriculum Committees, Division of Physical Therapy, University of Miami, 1988-1991

Member, Physical Therapy Admission & Research Committees, Division of Physical Therapy, University of Miami, 1992-1993

Coordinator, Revision of the Entry-Level Master's Elective Requirement, Division of Physical Therapy, 1993

31. Community Activities:

Elected Member, Board of Directors, Camelot Club Condominium Association, Inc., College Park, Georgia, 1980

Lectures to physical therapists and the lay public on spinal evaluation and treatment.

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

PERSONAL

1. **Date:** September 1, 1993
Social Security #: 141-36-6989
2. **Name:** Sherrill Howarth Hayes, Ph.D., P.T.
3. **Home Phone:** (305) 284-6838
4. **Office Phone:** Coral Gables: (305) 284-4535
5. **Home Address:** 1231 Dickinson Drive, Coral Gables, FL 33146
6. **Current Rank:** Adjunct Associate Professor,
7. **Primary Department:** Orthopaedics and Rehabilitation
8. **Secondary or Joint Appointments:** None
9. **Citizenship:** USA
10. **Visa Type:** None

HIGHER EDUCATION

11. Institutional:

University of Miami, Coral Gables, FL, Ph. D.
School of Education, Higher Education and Administration
May, 1992

University of Connecticut, Storrs, CT., M.S. Allied Health
Education with emphasis in Neurological Dysfunction, 1982

University of Connecticut, Storrs, CT., B.S. Physical
Therapy, 1970

(Non-degree):

University of Connecticut Medical School, MEDS 305, Central
Nervous System Committee, Fall 1981

Centro-Venezolano Americano, Caracas, Venezuela, Spanish
Certificate of Fluency - Written-Spoken, May 1972

12. Non-Institutional

"Functional Neurology", UConn Continuing Education Course, 1977

"Adaptive Equipment for Multiply-Handicapped Children", 1977
NICEED, University of Bridgeport, CT

"Neurodevelopmental Training - Adult Hemiplegia", 1979
Burke Rehabilitation Center, White Plains, NY

"Clinical EMG - Biofeedback Training Course", 1979
Emory University, Atlanta, GA

"Care and Rehabilitatin of the Burn Patient", 1980
New York Hospital-Cornell Medical Center, New York, NY

"Neurology for Rehabilitation Personnel" (I and II), 1979, 1980
Tufts University School of Medicine, Boston, MA

"Clinical Considerations in Geriatrics", 1980
Hartford Hospital, Hartford, CT

"Cognitive Training of the Adult Head Trauma Patient", 1981
Rancho Los Amigoes staff, Hartford, CT

"Coordinative Processes - Motor Learning", 1981
Columbia University School of Education, New York, NY

"Symposium on Gerontology - The Challenge of the Future", 1982
UConn School of Medicine, Farmington, CT

"The Multidisciplinary Approach to the Care of the Stroke Patient", 1982
American Heart Association of Greater Hartford
Hartford, CT

"Clinical Hemispheric Specialization - Aphasia, Agnosia, Apraxia", 1985
American Heart Association of Greater Hartford
Hartford, CT

"Motor Control", Pre-Conference Course, APTA National Conference, 1983
Kansas City, KS

"Clinical Biofeedback and Research Implications", 1981
Institute for the Crippled and Disabled, New York, NY

"Controversial and Innovative Strategies in Rehabilitation Medicine", 1985
University of Miami Medical School,
Miami, FL

"Motor Learning - Development Aspects", 1983
Columbia University, Boston, MA

"Accreditation Workshop for Academic Administrators of Physical Therapy
Educational Program", 1987
APTA Department of Education, Atlanta, GA

"Clinical Decision Making in Physical Therapy Practice, Education and Research,"
APTA Dept. of Education, Lake of the Ozarks, MO, October 1988.

"Managing Under Pressure," Padgett-Thompson, February, 1989.

"Expectations in Higher Education", APTA Dept. of Education,
Ft. Lauderdale, FL, July, 1989.

"How to be a Better Department Manager," Padgett Thompson,
September, 1989.

"Professional Issues Workshop," APTA, Savannah, GA, Oct, 1989.

"Physical Therapy for Women: Gynecology", Boston, MA.
April, 1990.

"Physical Therapy for Women: Obstetrics", Miami, FL.
July, 1990

"Expectations of Higher Education", APTA Dept. of Education,
Ft. Lauderdale, FL, July, 1990.

"The Organized Woman," The Business Women's Training Institute, March, 1990

"How To Be a Better Boss," Padgett Thompson, March, 1990.

"Impact I Conference on Consensus-Building for Post-Baccalaureate Entry Level
Education in Physical Therapy", APTA, Amelia Island, Florida, October, 1991.

"Management Effectiveness Seminar," Career Track, February 26-27, 1992.

"Faculty Evaluation and Development Seminar," Center for Educational Development Associates (CEDA), February, 1992.

"Impact II Conference - Regional Follow-up Conference on Consensus Building for Post- Bacclaureate Entry Level Education in Physical Therapy, APTA, Baltimore, MD, September, 1992.

13. Certification and licensures:

Physical Therapy:

Connecticut # 2221 1978 - Present
New York # 3111 1970 - Present (Inactive)
Florida # 4973 1986 - Present

EXPERIENCE

14. Academic:

Lecturer - University of Connecticut, Storrs, CT.,
September 1982 - December 1982

Assistant Professor - University of Connecticut, Storrs, CT
January 1983 - May 1985

Adjunct Associate Professor - University of Miami, Coral Gables, FL
June 1985 - Present

Interim Director - University of Miami, School of Education and Allied Professions
and School of Medicine
October 1985 - October 1987

Director, Division of Physical Therapy, University of Miami,
School of Medicine, Coral Gables, FL
October 1987 - Present

15. Non-Academic:

Staff Physical Therapist
Columbia-Presbyterian Medical Center
New York City, NY
September, 1970 - January, 1972

Staff Physical Therapist, Neurological Consultant
Instituto-Medicao La Floresta
Caracas, Venezuela
March, 1972 - January, 1973

Staff Physical Therapist, Consultant, Translator, Instructor
Hospital San Juan de Dios
Caracas, Venezuela
May, 1972 - April, 1973

Private Physical Therapist
Grupo Cisneros
Caracas, Venezuela
August, 1973 - May, 1975

Consultant in Physical Therapy, Lamaze Instructor
Oranjestad Hospital
Aruba, Netherlands Antilles
June, 1975 - November, 1976

Assistant Supervisor, Physical Therapy
Hartford Easter Seals Rehabilitation Center
Hartford, CT
March, 1977 - December, 1977

Physical Therapist, Neurological Specialist
Hartford Hospital
Hartford, CT
January, 1978 - March, 1985

Partner, Owner
Valley Rehabilitation Center
Simsbury, CT
October, 1984 - May, 1985

16. Military: None

Publications

17. Books and book chapters, monographs:

Course Syllabi:

"Problems in Patient Care II - Course Syllabus", University of Connecticut, Fall, 1983, 198 pp.

Clinical Arts III - Course Outline and Syllabus", University of Connecticut, Spring, 1984; Revised, Fall, 1984, 440 pp.

"Prosthetics and Orthotics - Course Outline and Syllabus,"
University of Miami, Fall, 1986, 310 pp.

"Neuroanatomy - Course Outline and Syllabus," University of Miami,
Fall, 1986; Revised, Fall, 1987, 168 pp.

"Neurophysiology - Course Outline and Syllabus," University of Miami,
Spring, 1987; Revised, Spring, 1988, 180 pp.

"Neuroanatomy - A Programmed Text," University of Miami,
Fall, 1990, pp.100.

18. Scientific articles in refereed journals:

Hayes, S., Carroll, S. "Early Intervention Care in the Acute Stroke Patient,"
Archives of Phys Med & Rehab, Vol. 67, May, 1986.

Hayes,S., "Beyond Golden Pond - Physical Fitness for the Elderly,"
Journal of Health Promotion/Disease Prevention, Vol. 2, No. 2, Winter, 1985.

19. Other works, publications, and abstracts:

"Early Intervention Care in the Acute Stroke Patient - Measurement of Outcome and Length of Stay", Journal of the American Physical Therapy Association, Vol. 63, No.5., May 1983.

"Rationale for the Use of 'Cortical Training' in the Treatment of Parkinsonism",
Neurology Report, APTA, Vol. 8, No. 2., Winter, 1984.

"Sexuality and Disability - Knowledge and Attitudes of Physical Therapy Students",
Physical Therapy Education, Vol. 64, No 5., May 1984.

"The CAT Scan - Structure and Function in the CNS", JAPTA, Vol. 65, No. 5., May, 1985.

"Model for a Cooperative University-Community Athletic Screening Program,"
JAPTA, Vol. 65, No. 5., May, 1985.

"The Contoured Adducted Trochanteric-Controlled Alignment (CAT-CAM) Prosthesis", JAPTA, Vol. 67, No. 5., May 1985.

"Physical Therapy Management in Meningococemia and Disseminated Intravascular Coagulation," JAPTA, Vol. 67, No.5., May, 1987.

"Age on Admission As an Important Predictor of Academic Success," JAPTA, Vol. 68, No. 5, May 1988.

"Instance and Location of Diastasis Recti Abdominis Related to Pregnancy," JAPTA, Vol. 69, No. 5, May, 1989.

"Guillian-Barre Syndrome: A Descriptive Study Correlating Activity Level, Physical Therapy Care and Residual Effects," JAPTA, Vol. 69, No. 5, May, 1989.

"DRG's and Outcome in Acute Stroke Patients," JAPTA, Vol.70, No. 5, May, 1990.

"Incidence and Location of Diastasis Recti Abdominus Related to Pregnancy," JAPTA, Vol. 70, No. 5, May, 1990.

"DRG's and the Implications for Acute Care Physical Therapy." JAPTA, Vol. 71, No. 5, May, 1991.

"Proprioceptive Neuromuscular Facilitation as a Neuromuscular Preparation for the Performance of the Vertical Leap," JAPTA, Vol. 71, No. 5, May, 1991.

"The Tale of the Whale: The Use of Electrical Stimulation for Muscle Contraction on Deformed Whale's Tails," JAPTA, Vol. 72, No. 6 (Suppl), June, 1992.

"Personality Characteristics of Physical Therapy Students - Then and Now," JAPTA, Vol. 72, No. 6 (Suppl), June, 1992.

"B.S. vs. M.S.-Prepared Physical Therapists: Differences in Perceived Educational Preparation and Professional Values," JAPTA, Vol. 72, No. 6 (Suppl), June, 1992.

"Learning and Instructional Styles in an Entry level Masters Degree Program in Physical Therapy," JAPTA, Vol. 72, No. 6 (Suppl), June, 1992.

20. Other works accepted for publication:

None

PROFESSIONAL

21. Funded Research: None

22. Editorial Responsibilities: None

23. Professional and Honorary Organizations:

American Physical Therapy Association - Member, 1968 - present

APTA - Section on Neurology - Member, 1978 - present

APTA - Section on Education - Member, 1980 - present
APTA - Section on Geriatrics - Member, 1980 - present
APTA - Section on Obstetrics/Gynecology - Member, 1981 - present

Alpha Eta, National Honor Society for Allied Health Professionals, inducted 1985

National Association of Female Executives

24. Honors and Awards:

Dean's Student Leadership Award, UConn School of Allied Health Professions, November, 1982, Graduate Student Recipient

High Merit Award for Excellence in Teaching, UConn, Storrs, CT 1983, 1984, 1985

Alpha Eta, National Honor Society for Allied Health Professionals, Connecticut Chapter, inducted May, 1986

High Merit Award for Excellence in Teaching, University of Miami, School of Education and Allied Professions, 1986

International Who's Who of Professional and Business Women - 1991

The World Who's Who of Women - 1990

Associate Master of Hecht Residential College, University of Miami, Coral Gables, Florida - 1992-present

25. Post-Doctoral Fellowships: None

26. Other Professional Activities:

Positions held in Scientific/Professional/Honorary Societies:

APTA - Connecticut Chapter - Treasurer, BOD
1983 - 1985

Florida Physical Therapy Association (FPTA)
Nominating Committee, Southeast District 1986 - 1988

Florida Physical Therapy Association (FPTA)
Delegate to HOD, APTA 1989, 1990

APTA - Section on Education - Nominating Committee
1989 - present (Chairperson - 1991-1992)

Scientific and Professional Presentations

- "The Quasi-Experimental Method in Rehabilitation Research"
UConn SAHP, Graduate School course AH 306, "Research Methods
in Allied Health"
March, 1982
- "Stroke Rehabilitation" Manchester Community College, Course on "Health and
Aging" October, 1983
- "Nature of Stroke" Prospect Hill Nursing Center, Windsor, CT, March, 1984
- "Deficits with Stroke - Hemispheric Specialization"
Prospect Hill Nursing Center, Windson CT, March 1984
- "Early Intervention Care and the Acute Stroke Patient - Research Findings and
Future Implications" Symposium in Allied Health, UConn SAHP, April, 1983
- "Early Intervention Care and the Acute Stroke Patient - Measurement of Outcome
and Length of Stay" APTA National Convention, Kansas City, KS, May, 1983
- "Rationale for 'Cortical Training' in the Treatment of Parkinsonism"
APTA Mid-Winter Conference, Houston, TX, February, 1984
- "CAT Scans - Visualization of the Brain" Colloquium Series, UConn SAHP
March, 1984
- "Sexuality and Disability - Attitudes and Knowledge of Physical Therapy Students"
APTA National Convention, Las Vegas, NV, May, 1984
- "Agnosia" Symposium on Clinical Hemispheric Specialization
American Heart Association of Greater Hartford, Inc., May, 1984
- "Prevention of Stroke - Know the Warning Signs" Stroke Awareness Week, AHA,
Radio Interview, WKND Hartford, May, 1984
- "The CAT Scan - Structure and Function in the CNS" APTA National Convention,
New Orleans, LA, May, 1985
- "Model for a Cooperative University-Community Athletic Screening Program"
APTA National Convention, New Orleans, LA, May, 1985
- "Grey Matter, White Matter - What Does it Matter? An Integrated Approach to
CNS Dysfunction" Connecticut Chapter, APTA, Spring Conference, Cromwell, CT
May, 1985

"The Entry Level Master's Program at the University of Miami - Implication for Clinical Education," Clinical Coordinators Forum of Dade/Broward Counties, April, 1987

"Sexuality and Disability - Stroke, Parkinson's, Arthritis and Degenerative Joint Disease," In-service to Rehabilitation staff of AMI/Parkway Hospital, April, 1987.

"Physical Therapy Management in Meningococemia and Disseminated Intravascular Coagulation, APTA National Convention, Las Vegas NV, May, 1988.

"Age on Admission As an Important Predictor of Academic Success," APTA National Convention, Las Vegas NV, June, 1988.

"Instance and Location of Diastasis Recti Abdominis Related to Pregnancy," APTA National Convention, Nashville, TN, June, 1989

"Guillian-Barre Syndrome: A Descriptive Study Correlating Activity Level, Physical Therapy Care and Residual Effects," APTA National Convention, Nashville, TN June, 1989

"DRG's and Outcome in Acute Stroke Patients," APTA National Convention, Anaheim, CA, June, 1990

"DRG's and the Implications for Acute Care Physical Therapy" APTA National Convention, Boston, MA, June, 1991

"Proprioceptive Neuromuscular Facilitation as a Neuromuscular Preparation for the Performance of the Vertical Leap," APTA National Convention, Boston, MA June, 1991

"The Tale of the Whale: The Use of Electrical Stimulation for Muscle Contraction on Deformed Whale's Tails," APTA National Convention, Denver, CO June, 1992

"Personality Characteristics of Physical Therapy Students - Then and Now," APTA National Convention, Denver, CO, June, 1992

"B.S. vs. M.S.-Prepared Physical Therapists: Differences in Perceived Educational Preparation and Professional Values," APTA National Convention, Denver, CO June, 1992

"Learning and Instructional Styles in an Entry level Masters Degree Program in Physical Therapy," APTA National Convention, Denver, CO, June, 1992

Continuing Education Workshops Conducted/Organized - 1983-1985

Symposium on Stroke, AHA, "Multidisciplinary Approach to the Care of the Stroke Patient"

Symposium on Stroke, AHA, "Clinical Hemispheric Specialization"

"Sexuality and Disability", Worcester Memorial Hospital, MA

"Sexuality and Disability", Mount Sinai Hospital,
Hartford, CT

"Sexuality and Disability", Hartford Hospital, Hartford, CT

"Spasticity - Neurophysiology and a Rationale for Treatment", Neurological Special Interest Group, CT

"Parkinson's Disease - Pathophysiology and a Rationale for Treatment", Neurological Special Interest Group, CT

"CAT Scans - Present and Future Implications", Neurological Special Int. Group, CT

"Amyotrophic Lateral Sclerosis", Neurological Special Interest Group, CT

"Multiple Sclerosis - Pathology and Clinical Features", Neurological Special Interest Group, CT

"Neuroanatomy - Structure and Function", Hartford Hospital Staff In-service,
Hartford, CT

"NDT Approach to the Adult Patient with TBI" Neurological Special Int. Group, CT

"Structure and Function in the CNS" Yale-New Haven Hospital Department of Rehabilitation In-service presentation, New Haven, CT

"Referral for Profit Situations - Implications for Physical Therapy Education and Practice" FPTA Spring Conference, Miami, FL - 1987, Moderator

"Teaching Ethics in the Academic Setting" CSM, APTA, San Antonio, TX, February, 1992 (to be done) Invited Speaker (Co-Chair of 2-day presentation)

TEACHING

27. Teaching Awards Received:

Dean's Student Leadership Award, UConn School of Allied Health Professions, November, 1982, Graduate Student Recipient

High Merit Award for Excellence in Teaching, UConn, Storrs, CT 1983, 1984, 1985

High Merit Award for Excellence in Teaching, University of Miami, School of Education and Allied Professions, 1986

28. Teaching Specialization:

Current Courses:

Fall:	PTS 540 Neuroanatomy - Main Professor
Spring:	PTS 541 Neurophysiology - Main Professor
Summer:	PTS 650 PT and Ob-Gyn - Main Professor
Fall:	Therapeutic Exercise II - Lecturer Orthopedics I - Lecturer
Spring:	Neurorehabilitation I - Lecturer

Past Teaching Duties and Courses Taught:

University of Miami 1985 - 1987
Neurophysiology / Neuroanatomy
Prosthetics and Orthotics
Rehabilitation/Neurorehabilitation
Neuropathology

University of Connecticut 1982 - 1985
Electrotherapy
Therapeutic Exercise
Neuroanatomy
Neuropathology
Prosthetics and Orthotics
Honors Seminars I, II and III

29. Thesis and Dissertation Advising:

University of Connecticut:

Honors Thesis Advisor, J. Javens - 1984
"The Use of Visual Imagery in Physical Rehabilitation"

Honors Thesis Advisor, J. Spangenberg - 1984
"The Effect of Exercise on the Insulin-Dependent Diabetic"

Honors Thesis Advisor, Gloria Gaulin - 1983
"Human Sexuality and The Role of The Health Professional"

University of Miami:

Master's Thesis Advisor, Bryon Smith and Wendy G. Nones - 1988
"A Determination of the Correlation Between Average Power and Power Produced by the Back Extensors and Various Anthropometric Measurements"

Master's Thesis Advisor, E. Castro, J. Kuro, W. Meister - 1989
"Measurement of Energy Expenditure of Hemiplegic Patients with and Without an Orthosis"

Master's Thesis Advisor, K. Slepp, L. Alon - 1989
"Incidence and Location of Diastasis Recti Abdominis Related to Pregnancy"

Master's Thesis Advisor, M. Haynie, J. Nagy - 1989
"Guillian-Barre Syndrome: A Descriptive Study Correlating Activity Level, Physical Therapy Care and Residual Effects"

Master's Thesis Advisor, J. Hymowitz - 1989
"Effects of Localized Ultrasound to Chronic Psoriatic Plaques: A Pilot Study"

Master's Thesis Advisor, A.M. Flores, J. P. Mason - 1990
"The Impact of DRG's on Physical Therapy in the Acute Care Setting"

Master's Thesis Advisor, G. Cook, M. Updegraff, B. Zverina - 1990
"Proprioceptive Neuromuscular Facilitation as a Neuromuscular Educator on the Performance of Vertical Leap"

Master's Thesis Advisor, M.L. VanWyck - 1990
"The Effect of a Posterior Pelvic Tilt on EMG Activity of the Rectus Abdominis When Performing a Trunk Curl"

Master's Thesis Advisor, Carol S. Levine - 1991
"Measurement of Functional Activities in Parkinson's Patients: A Pilot Study"

Master's Thesis Advisor, Jodi Alexander & Diana Murazzi - 1992
"Instructional and Learning Styles in Physical Therapy Programs"

Master's Thesis Advisor, Tracy Raskin, Jennifer Rhue, & Kecia Riccelli - 1992
"Comparison of Personality Characteristics of Physical Therapy Baccalaureate and Entry Level Masters' Students"

Master's Thesis Advisor, Joelle Wagshul & Claire Atkins - 1993
"M.S. Prepared Physical Therapists: Differences in Perceived Educational Preparation and Professional Values"

Master's Thesis Advisor, J. Allen Hardin & Raymond Kargo - 1993
"The Relationship Between Autonomy Level and Choice of Health Profession Among Medical, Physical Therapy, and Nursing Students"

SERVICE

30. University Committee and Administrative Responsibilities:

University of Connecticut:

Curriculum and Courses Committee - SAHP, 1982 - 1983

Gerontology Task Force - SAHP, 1982 - 1983

Housing, Transportation, Parking Committee - Chair Task Force on Relocation of the Schools of Allied Health and Nursing - SAHP, 1984

Fran Tappan Scholarship Committee - SAHP - Chair, 1983 - 1985

Post-Baccalaureate Curriculum - SAHP - Member, 1984

Committee on Competencies Objectives, Post Baccalaureate Curriculum - SAHP - Member, 1984

University of Miami - School of Education & Allied Professions

Scholarship Committee - Member, 1985

Physical Plant and Finance Committee for Self-Study, 1985 - 1986

University of Miami - School of Medicine, Division of Physical Therapy 1986 - Present:

Admissions Committee - Member, 1985 - present (Chair 1985-1991)

Curriculum Committee (Ad-hoc member), 1985 - present

Administrative Committee - Chair, 1987 - present

Graduate Assistantship Committee, 1987 - present

Committee for Academic Review (C.A.R.) - Member, 1987 - present

PhD Task Force, 1991-1992

University-wide Wellness Committee and Task Force for the expansion of the Lane Recreation Center into a Wellness Center, 1997-89

Programs and Degree Committee, Graduate School, University of Miami - Member
1990 - present

31. Community Activities:

American Heart Association of Greater Hartford, Inc., 1978-1985

Co-Chairperson, Stroke Committee, 1978 - 1985

Board of Directors, 1984 - 1985

Program Committee, 1982 - 1985

Patron, Friends of the Hill-Stead Museum, Farmington, CT, 1982 - 1985

Patron, Children's Museum of Science, Miami, FL, 1985 - Present

Guest Lecturer, Gulliver Preparatory School, Coral Gables, FL

AP Biology Class, 1989, 1990 - The Brain, The Central Nervous System,
Genetic Disorders

Pinecrest Presbyterian Church, Member, 1991 - present

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. **Date:** September, 1993
Social Security: 438-94-0795

PERSONAL

2. **Name:** Penny G. Kroll, Ph.D., P.T.
3. **Home Phone:** (305) 598-1980
4. **Office Phone:** (305) 284-4535
5. **Home Address:** 10225 SW 89 St.
Miami, FL 33176
6. **Current Academic Rank:** Adjunct Assistant Professor
7. **Primary Department:** Orthopaedics and Rehabilitation
Division of Physical Therapy
8. **Secondary or Joint Appointments:** N/A
9. **Citizenship:** USA
10. **Visa Type (if non-citizen):** N/A

HIGHER EDUCATION

11. **Institutional:**

Ph.D. in Clinical Research, Dept. of Physical Therapy, School of Education, Health, Nursing and Arts Professions (SEHNAP), New York University, N.Y., N.Y., June 1988.

M.A. in Kinesiology of the Disabled, Dept. of Physical Therapy, SEHNAP, N.Y.U., N.Y.C., 1982.

B.S. in Physical Therapy, 1975, Louisiana State University Medical Center, New Orleans, Louisiana.

12. **Non-Institutional:**

Continuing Education-over 860 hours have been completed in research methodology, ergonomics, neuromuscular theory and function, physiology, electromyography, footcare and footwear modification, prosthetics, joint mobilization, AIDS Education, geriatrics, Differential Diagnosis in Physical Therapy and other orthopaedic areas as well as Gender-Balancing Curriculum in Professional Schools.

13. **Certification, licensure:**

Florida: 007294

EXPERIENCE

14. **Academic:**

August 1991-Present-Adjunct Assistant Professor, University of Miami
Department of Orthopaedics and Rehabilitation, Division of Physical Therapy,
Miami, FL.

Responsible for A) Teaching Human Movement I & II B) Student
Advising C) Supervising Graduate Student Research.

September, 1985 to September, 1987-Instructor, Hunter College, School of Health
Sciences, Department of Physical Therapy, New York, N.Y.

Responsible for a) teaching coursework in Kinesiology, Orthopaedics,
Anatomy, Prosthetics and Orthotics, Physical Therapeutic Agents, and
selected topics in Research Design, Electromyography, Isokinetics, and
Pulmonary Physical Therapy, member of the School of Health Science
Research Committee.

September, 1985 to September, 1987-Research Therapist, Department of
Orthopaedics, and Consultant to Physical Therapy and Occupational Therapy
Department, Hospital for Joint Diseases-Orthopaedic Institute, New York, New
York.

Responsible for participating in research within the Orthopaedic, and
Bioengineering department and for assisting in development of P.T./O.T.
in-house therapeutic programs, continuing education programs, and
hospital based academic coursework.

January, 1985 to June, 1986-Adjunct Assoc. Professor, Dept. of Physical Therapy,
Long Island University.

Responsible for a) coordinator/lecturer in coursework in
Orthopaedics/Musculo-skeletal Medical Science and teaching course in
Research Methods. b) curriculum consultant for development of Advanced
Graduate Program in Musculoskeletal Physical Therapy.

March, 1984 to August, 1985-Research Therapist, Department of Orthopaedics, Hospital for Joint Diseases, Orthopaedic Institute (HJD-OI), New York, N.Y.
Responsible for a) initiating and participating in research within orthopaedics, and P.T./O.T. depts., b) coordinator and lecturer for Hunter College Physical Therapy Orthopaedics course through Orthopaedics Dept., HJD-OI, c) lecturer for hospital and community activities, such as Annual Student Athletic Trainer Program, HJD-OI.

January, 1985 to May, 1985-Coordinator of Doctoral seminar, Department of Biomechanics and Ergonomics, SEHNAP, New York University, N.Y.C.

August, 1980 to March, 1984-Sports Medicine/Research Therapist, HJD-OI, N.Y.C.

Responsible for a) performing evaluations and treatment of normal and patient populations, b) supervise staff therapists and promoting research guidance to therapy staff and students, c) deliver lectures for hospital and community activities.

August, 1979 to August, 1980-Instructor, Ithaca College, Albert Einstein University Medical Center, Physical Therapy Department.

Responsible for a) coursework and laboratories in exercises in orthopaedic disorders, electromyography, joint examination, modalities, and advanced therapeutic exercise, b) supervising senior student's research projects.

September, 1978 to August, 1980-Adjunct faculty, N.Y.U. Medical Center, Physical Therapy Department in Certificate and B.S. degree programs.

Responsible for laboratories in Neuroscience and Neuroanatomy, Bio-electronics, and Therapeutic Exercise. Adjunct faculty, N.Y.U. Post-graduate Medical School, Prosthetics and Orthotics, laboratory instructor in lower extremity prosthetics.

15. **Non-Academic:**

August, 1991-Present-Clinician, University of Miami Physical Therapy Associates, Miami, FL.

Responsible 1) Part-Time Evaluation and Treatment of patients in outpatient setting.

August, 1990 to June, 1991-Senior Staff Therapist, Hospital for Special Surgery, New York, N.Y.

Responsible for 1) evaluation and treatment of an inpatient orthopaedic population, primarily THR and TKR 2) supervision of staff physical therapists and physical therapy assistants, 3) reducing and inputting clinical research data on functional milestones in THR and TKR patients.

July, 1989 to August, 1990-Private Practice/Contract Therapist, New York, N.Y.
Responsible for 1) evaluation and treatment of a private patient population, mainly orthopaedic in nature, the greater number of which had hand/upper extremity involvement. 2) contract therapist with the New York Board of Education treating 5 to 10 y.o. children with various neuromuscular diagnoses.

September, 1987 to July, 1989-Director, Department of Physical and Occupational Therapy, Hospital for Joint Diseases, New York, N.Y.

Responsible for staff of 51 including 12 Occupational Therapists (O.T.'s), 2 O.T. assistants, and 28 Physical Therapists. The department, which provided services to a 200 bed orthopaedic inpatient population and to approximately 150 outpatients daily, included a CARF accredited comprehensive Pain Management Program, an extensive Pediatrics service, Sports Medicine service and inpatient Geriatric Trauma Program.

16. Military:

September, 1978 to August, 1979-Co-assistant Chief, First Lieutenant, United States Public Health Service (USPHS) Hospital, Staten Island, N.Y.

Responsible for a) staff supervision, patient scheduling, b) general patient care, electromyographic testing, and prosthetic and orthotics patient care.

August, 1977 to September, 1978-Staff Therapist, First Lieutenant, USPHS Hospital, Staten Island, N.Y.

Responsible for general inpatient care, electromyographic testing, prosthetics and orthotics patient care.

August, 1975 to August, 1977-Staff Therapist, First Lieutenant, USPHS Outpatient Clinic, N.Y., N.Y.

Responsible for orthopaedic patient care, primarily low back patient evaluation and treatment, orthopaedic screening of incoming clinic patients.

July, 1974 to August, 1974-COSTEP Trainee, Second Lieutenant, USPHS Hospital, New Orleans, Louisiana.

Responsible for a full patient care load, under supervision of a staff physical therapist.

17. Books and monographs published:

NONE

18. **Juried or refereed journal articles and exhibitions:**

"Clavicular Resection Surgical Procedure and Post-operative Function," M. Lewis, F. Ballet, P. Kroll, and B. Baum; Clinical Orthopaedics and Related Research, March 1985, 193: 214-220.

19. **Other works and publications:**

"The Effect of Previous Contraction Condition on Subsequent Eccentric Power Production in Elbow Flexor Muscles." Doctoral Dissertation, New York University, 1988.

Abstract, "The Effect of Lumbar Support on Spinal Stress During Lifting," C.M. Gross, P.G. Kroll, B. Nielsson, L. Peterson, V.F. Frankel. Presented at the 1983 HJD-OI Alumni Association Meeting, N.Y., N.Y.

Abstract and Masters thesis, "Length-tension-velocity Measurements in Athletes," P. Kroll. Presented at the 1982 Annual New York State American Physical Therapy Association (APTA) Conference, New York, N.Y.

Abstract, "The Effect of Icing on Passive Muscle Lengthening," P. Kroll. Presented at the USPHS Commissioned Officers Association, Twelfth Annual Meeting, April 1977, San Francisco, California.

Abstract, "A Volumetric Study of the Lower Extremity," P. Kroll. Presented at the USPHS Commissioned Officers Association, Eleventh Annual Meeting, May 1976, New Orleans, Louisiana.

20. **Other works accepted for publication:**

NONE

PROFESSIONAL

21. **Funded Research Performed:**

NONE

22. **Editorial Responsibilities:**

NONE

23. **Professional and Honorary Organizations:**

Secretary, Board of Directors of the New York Society for Continuing Education for Physical Therapy, January, 1986 to 1991.

Chairman, New York State Research Committee of the APTA, 1980-1983.

Member-at-large, New York City District Board, American Physical Therapy Association August 1988-present.

Member, American Physical Therapy Association.

24. **Honors and Awards:**

1984 Certificate of Appreciation for Service from the N.Y. State APTA Board of Directors.

1983 Merit Award from the N.Y. State APTA for work on the State Research Committee.

25. **Post-Doctoral Fellowships:**

NONE

26. **Other Professional Activities:**

Lecturer, University of Miami Environmental Health and Safety, February 24, 25, & 26, 1993. Lecturer/Presenter of "Warm-Up Exercises in the Work Place."

New York State Education Board Examiner for Oral Licensure examination in Physical Therapy.

Faculty, "Innovations in Sports Medicine." Sponsored by Hunter College and HJD-OI, N.Y.C.. Saturday, March 14, 1987. Presented- "The Role of Eccentric Muscle Contraction on Performance and Exercise."

Faculty, "Symposium on Sports Medicine, Challenge and Innovations in Rehabilitation." Sponsored by the Metropolitan N.Y. District N.Y. State Occupational Therapy Assoc., Nov. 9-10, 1984, HJD-OI, N.Y., N.Y. Topic area on biomechanics of sports injuries, exercise and strength measurement techniques, and research in sports medicine.

Coordinator and Lecturer, "Symposium on Clinical Research in Physical and Occupational Therapy." Sponsored by HJD-OI and the N.Y. State Chapter of the APTA, Nov. 19-20, 1983 HJD-OI, N.Y., N.Y.

Guest Lecturer, "Exercise and Isokinetic Instrumentation." Occupational Therapy Association, Orthopaedic Study Group, Dec. 9, 1981, HJD-OI, N.Y., N.Y.

Faculty, "Biomechanics of the Foot-Clinical Evaluation and Treatment." Continuing education course sponsored by the Staten Island District APTA, Sept. 19, 1981, Staten Island, N.Y.

Guest Lecturer, "Sports Medicine and Exercise." Sponsored by the Upward Fund, August 3, 1981, PS 96, 125th Street, N.Y., N.Y.

Faculty, "Biomechanics of the Foot." Continuing Education course sponsored by the Staten Island District APTA, August 19, 1979, Staten Island, N.Y.

Guest Lecturer, "Application of Total Contact Casts in Lower Limb Amputations," in the Symposium on the Management of Experiences with Lower Extremity Amputations. Continuing education course sponsored by the Staten Island District APTA, December, 1978, Staten Island, N.Y.

TEACHING

27. Teaching Awards Received:

Faculty Initiative Award, University of Miami, Division of Physical Therapy, 1992-1993.

28. Teaching Specialization (courses taught):

PTS 572 - Human Motion I
PTS 573 - Human Motion II

29. Thesis and Dissertation Advising:

University of Miami, Division of Physical Therapy

1992-1993 - "The Effect of Increased Flexibility on Work and Peak Torque Production of the Hamstrings during the Concentric Phase of a Stretch-shortening Cycle." Students: D. Paloma, and D. Bunch.

- 1993 - "Stability of Back Range of Motion, Power, and Velocity using B-200 Back Testing Device." Students: T. Bartole, M. Blitzer, and K. Pattaras.
- 1993 - "Construct Validity Between Two Tests for Measuring Pelvic Tilt." Student: Stephanie Carter. Advance Master's.
- 1993 - "Effectiveness of Gravity Traction as an Add-on in Stretching the Lumbar Paraspinal Muscles in Chronic Low Back Pain Patients." Student: Gloria Martinez. Advance Master's.

SERVICE

30. University Committee and Administrative Responsibilities:

NONE

31. Community Activities:

President, Parents Association, Gifted Education Program, Kendale Elementary School, Miami, FL 33176, 1992 - Present.

Assistant Coordinator, Hospitality Committee, St. Catherine of Siera Catholic Church, Miami, FL 33176, June 1993-Present.

**University of Miami
Curriculum Vitae**

1. Date: September 1, 1993
Social Security # 288-42-5432

PERSONAL

2. Name: Mark Stephen Nash
3. Home Phone: (305) 882-9294
4. Office Phone: (305) 585-7970, 284-4535
5. Home Address: 1420 South Bayshore Drive, Ph 4
Miami, Florida 33131
6. Current Rank: Adjunct Assistant Professor
7. Primary Department: Orthopaedics & Rehabilitation,
Division of Physical Therapy
8. Secondary/Joint Appointment: Department of Neurological Surgery
The Miami Project to Cure Paralysis
9. Citizenship: USA
10. Visa Type: N/A

HIGHER EDUCATION

11. Institutional:

Bachelor of Science; Biology,
University of Toledo, Toledo, Ohio
June, 1976

Master of Science; Biology, Human Physiology
University of Toledo, Toledo, Ohio
August, 1980

Doctor of Philosophy; Exercise Physiology/Anatomy
University of Toledo, Toledo, Ohio
Medical College of Ohio at Toledo, Toledo, Ohio
October, 1984

12. Non-Institutional: None

13. Certification, Licensure: None

EXPERIENCE

14. Academic:

Graduate Instructor in Physiology, Department of Biology,
University of Toledo, Toledo, Ohio
September 1976-September 1977

Graduate Teaching Assistant, Department of Health Promotion and Human Performance,
University of Toledo, Toledo, Ohio
January 1981-September 1983

Internship in Kinesiotherapy, Department of Health Promotion and Human Performance
University of Toledo, Toledo, Ohio
January 1982-January 1984

Internship in Perceptual Motor Development,
Department of Health Promotion and Human Performance
University of Toledo, Toledo, Ohio
June 1982-June 1983

Instructor in Special Topographic Dissection, Department of Anatomy,
Medical College of Ohio at Toledo, Toledo, Ohio
June 1983-August 1983

Internship in Cardiac Rehabilitation, Outpatient Cardiac Rehabilitation Program,
University of Toledo, Toledo, Ohio
June 1981-August 1983

Research Associate, Exercise Physiology Laboratories,
Department of Health Promotion and Human Performance,
University of Toledo, Toledo, Ohio
June 1982-August 1984

Assistant to the Director of Cardiac Rehabilitation,
The Riverside Hospital Center for Health Promotion, Toledo, Ohio
January 1983-August 1984

Doctoral Fellow, University of Toledo, Toledo, Ohio
September 1983-June 1984

Project Coordinator, South Florida Regional Spinal Cord Injury System,
Department of Orthopaedics and Rehabilitation,
University of Miami School of Medicine, Miami, Florida
September 1984-June 1985

Director, Functional Electrical Stimulation Laboratory,
Department of Neurological Surgery,
University of Miami School of Medicine, Miami, Florida
September 1984-January 1986

Research Instructor,
Department of Neurological Surgery
Department of Orthopaedics and Rehabilitation,
University of Miami School of Medicine, Miami, Florida,
September 1984- May 1989

Research Scientist, Veterans Administration Medical Center, Miami, Florida,
January 1985-January 1989

Adjunct Instructor, Department of Exercise Science and Sport Studies,
University of Miami, Coral Gables, Florida
January 1986-May 1989

Program Director, Computerized Functional Electrical Stimulation Program,
Department of Neurological Surgery,
University of Miami School of Medicine, Miami, Florida
January 1986-Present

Adjunct Assistant Professor,
Division of Physical Therapy, Department of Orthopaedics and Rehabilitation,
Department of Neurological Surgery
University of Miami School of Medicine, Miami, Florida
June 1989-Present

15. Non-Academic:

Consultant on Cardiac Rehabilitation to the Chief, Division of Cardiothoracic Surgery,
The Mount Sinai Medical Center of Cleveland, Cleveland, Ohio
January 1983-August 1984

16. Military: None

PUBLICATIONS

17. Books and Monographs Published:

Nash, M.S. Exercise and Immunology. *Med Sci Sports Exerc* (In Press), February 1994.

Nash, M.S. Autonomic Dysfunction: Immune Modifications and Exercise Responses in the Spinal Cord Injured. *Med Sci Sports Exerc* (In Press), February 1994.

Nash, M.S., and N.I. Spielholz. The Effect of Aging and Exercise on Bone and Skeletal Muscle. *Orthop Phys Ther Clin N Am* (In Press) September, 1993.

Nash, M.S. and M.A. Fletcher. *The Physiologic Perspective: Immune System. In Aging with Spinal Cord Injury*, R. Mentor, (Ed). Demos Publications, New York, NY. In Press, June, 1992.

Nash, M.S. *Electrocardiography. In Anatomy and Physiology*. F.F. Andres, Editor. Bowers Publishing Company. Debuque, Iowa. 1984, 1988.

Nash, M.S. *Endocrinology. In Anatomy and Physiology*. F.F. Andres, Editor. Bowers Publishing Company. Debuque, Iowa. 1984, 1988.

18. Juried or Refereed Journal Articles and Exhibitions:

Nash, M.S., M.A. Fletcher, R. Garcia-Morales, K.J. Klose, and B.A. Green. Effects of Electrically-Stimulated Exercise on Peripheral Blood Mononuclear Cells and Natural Killer Cytotoxicity in Quadriplegics. *Arch Phys Med Rehabil* (In Submission), September 1993.

Lowenstyn I., A.C. Perry, M.S. Nash, and D. Salhanick. Differences in Peak Blood Lactate Values in Long Course Versus Short Course Swimming. *J Swimming Res* (In Submission), July, 1993.

- Moser, P.E., M.S. Nash, A.C. Perry, A. LaPerriere. The Effects of Aerobic Circuit Training on Metabolic Control, Lipid Profiles, and Cardiovascular Fitness in Adolescent Type I Insulin Dependent Diabetics. *Arch Phys Med Rehabil* (In Submission), May, 1993.
- Gailey, R., M.A. Wenger, M. Raya, N. Kirk, K. Erbs, P. Spyropoulos, and M.S. Nash. Energy Expenditure of Below-Knee Amputees During Ambulation at Self-Selected Pace. *Int Soc Orthot and Prosthet* (In Submission), May 1993.
- Nash, M.S., M.S. Bilsker, J. Hughes, H.M. Kearney, J.N. Ramirez, B. Applegate, and B.A. Green. Echocardiographically-derived Wall Motion and Cardiodynamic Responses to Electrical Stimulation Cycle Ergometry and Lower Extremity Passive Motion in Tetraplegics. *Paraplegia* (In Submission), April 1993.
- Nash, M.S., J. Tehranzadeh, B.A. Green, M.T. Roundtree, and J.D. Shea. MR Assessment of Osteonecrosis and Osteoarthritis in Exercising Quadri- and Paraplegics. *Am J Phys Med Rehabil* (In Submission), March, 1993.
- Nash, M.S., M.R. Ledford, J.W. Kent, and B.A. Green. Acute Endothelial Plasminogen Response to Electrically-Stimulated Cycling Exercise in Human Quadriplegics. *Proc Elec Mag Biol Med* 1:717-719, 1993.
- Nash, M.S., R.E. Isaacks, J.R. Hughes, and B.A. Green. Acute Effects of Electrically-Stimulated Cycling Exercise on Oxyhemoglobin Affinity in Quadriplegics. *Proc Elec Mag Biol Med* 1:782-784 1993.
- Nash, M.S. and N.I. Speilholz. Influence of Electrically-Stimulated Cycling Exercise on H-Reflexes in Human Quadriplegia. *Proc Elec Mag Biol Med* 1:785-788, 1993.
- Nash, M.S., M. Multach, K. Banovac, J.A. D'Errico, S.L. Miller, M.R. Ledford, J.W. Kent, K.J. Klose, E.E. Marcillo, and B.A. Green. Fibrinolytic Responses to DDAVP Infusion in Electrically-Stimulated Exercise Trained and Untrained Quadriplegics. *Proc Elec Mag Biol Med* 1:770:772, 1993.
- Nash, M.S. In Support of Student Research [Letter]. *Phys Ther* 72(8):605-6, 1992.
- Gailey, R.S, D. Lawrence, C. Burditt, P. Spyropoulos, C. Newell, and M.S. Nash. The CAT-CAM Socket and Quadrilateral Socket: A Comparison of Energy Cost During Ambulation. *Int Soc Orthot and Prosthet* (In Press), December 1993.
- Levine, A.M., M.S. Nash, B.A. Green, M.T. Rountree, J.D. Shea, and M. Aronica. An Examination of Dietary Intakes and Nutritional Status of Spinal Cord Injured Individuals. *Paraplegia* 30:880-889, 1992.
- Perry, A.C., M.H. Shaw, L. Hsis, M.S. Nash, J.F. Signorile, and B. Applegate. Relationship between diet and plasma lipids in active versus sedentary premenopausal females. *Int J Sports Med* 13(3):201-206, 1992.
- Nash, M.S., M.S. Bilsker, A.E. Marcillo, S.M. Isaac, L.A. Botelho, K.J. Klose, B.A. Green, M.T. Roundtree, and J.D. Shea. Reversal of Adaptive Left Ventricular Atrophy Following Electrically-Stimulated Exercise in Human Tetraplegics. *Paraplegia* 29(9):590-599, 1991.
- Ragnarsson, K.T, S. Pollock, J. Petrofsky, W. O'Daniel, R. Edgar, and M.S. Nash. Clinical Evaluation of Computerized Functional Stimulation After Spinal Cord Injury: A Pilot Multicenter Study. *Arch Phys Med Rehabil* 69:672-677, 1988.

19. Other works, publications, and abstracts:

Nash, M.S., M.R. Ledford, B. Needham-Shropshire, M.C. Via, B.W. Stevens, J.W. Chaplin, B.S., P.L. Jacobs, and R. Guest. Metabolic Responses to Computerized Electrically-Stimulated Ambulation in Paraplegics at Self-Selected Pace: Comparison with Nondisabled Controls *J Am Soc Parapleg* (In Submission) August, 1993.

Nash, M.S. Nash, M. Kumar, A.M. Kumar, R. Garcia-Morales, M.A. Fletcher, and J.B. Fernandez. Neuroendocrine Modulation of Mononuclear Cell Trafficking and Natural Killer Cell Function in Exercising Paraplegics. *J Am Soc Parapleg* (In Submission) August, 1993.

Nash, M.S. Nash, B.M. Montalvo, B. Applegate, B.A. Green, M. Riemann, and J.R. Hughes. Lower Extremity Blood Flow and Occlusive Hyperemia in Electrically-Simulated Trained and Sedentary Quadriplegics. *J Am Soc Parapleg* (In Submission) August, 1993.

Nash, M.S., D.C. Nieman, B.K. Pederson, J.M. Davis, L. Hoffman-Goetz, and L. Traeger-Mackinnon. Exercise and Immunology. *Med Sci Sports Exerc* 25(5):S24 1993.

Nash, M.S., C.B. Vandenakkar, M.A. Fletcher, R. Garcia-Morales, M. Kumar, and B.A. Green. Catecholamine Influences of Micturition on Phenotypic and Functional Indices of Host Defense in a Quadriplegic. *J Am Soc Parapleg* 16(2):135, 1993.

Nash, M.S., M.S. Bilsker, J. Hughes, H. Kearney, J. Ramirez, B. Applegate, and B.A. Green. Echocardiographically-Derived Wall Motion and Cardiodynamic Responses to Electrical Stimulation Cycle Ergometry and Lower Extremity Passive Motion. *J Am Soc Parapleg* 16(2):116, 1993.

Jabir, A.M., M.S. Nash, G.N. Sfakianakis, A.N. Serfini, and W.I. Ganz. Blood Flow Measurement Using a Gamma Camera and Xe-133 in Human Quadriplegia. *American Association of Physicists in Medicine* (In Press) August 1993.

Nash, M.S., R Garcia-Morales, JR Hughes, MA Fletcher, and BA Green. Endogenous Pyrogen Activity Following Electrical Stimulation Cycling Exercise in Quadriplegics. *Med Sci Sports Exerc* 25(5), 1992.

Nash M.S., D.P. D'Andrea, J.E. Eaton, J.G. Mahoney, and J.R. Hughes. Metabolic Responses to Electrically-Stimulated Cycling and CPM in Human Quadriplegics. Abstracts of the National Conference of the American Physical Therapy Association, June, 1992.

Voight, M., P.A. Apfel, C.H. Brakeville, D.J. Laux, and M.S. Nash. Simultaneous Chronotropic and Pressor Responses to Successive Sets of Isokinetic Knee Exercise. Abstracts of the National Conference of the American Physical Therapy Association, June, 1992.

Nash, M.S., J.A. D'Errico, S.L. Miller, M.R. Ledford, and J.W. Kent. Endothelial Tissue-Type Plasminogen Response to Desmopressin Acetate Infusion in Exercise-Trained and Untrained Quadriplegics. Abstracts of the National Conference of the American Physical Therapy Association, June, 1992.

Nash, M.S., B. Needham-Shropshire, M.A. Brodnansky, and L.A. Rattini. Metabolic and Chronotropic Responses to Electrically-Stimulated Standing in Paraplegics. Abstracts of the National Conference of the American Physical Therapy Association, June, 1992.

Nash M.S., R. Smith, C. Gentilcore, S. Emerson, and N.I. Spielholz. Hyperemic Responses to Exponentially-Pulsed Galvanic Stimulation in Chronic Cauda-Cord Syndrome. Abstracts of the National

Conference of the American Physical Therapy Association, June, 1992.

Nash, M.S., A.M. Kumar, J.R. Hughes, J.B. Fernandez, A.E. Marcillo, K.J. Klose, and M. Kumar. Acute Serotonergic and Cortisol Responses of Quadriplegics to Electrically-Stimulated Cycling Exercise. American Spinal Injury Association. *J Am Parapleg Soc* (In Press), May, 1992.

Nash, M.S., J. Curtis, T.L. Hevermeyer, and D.A. Lipori. Alterations of Resting Pulmonary Function Accompany Electrical Stimulation Cycle Ergometry in Human Quadriplegics. Abstracts of the National Conference of the American Physical Therapy Association, June, 1991.

Nash, M.S., M. Calderon, R. Smith, C. Gentilcore, and S.C. Emerson. Post-Occlusive Reactive Hyperemia in Cauda-Cord Syndrome. Abstracts of the National Conference of the American Physical Therapy Association, June, 1991.

Nash, M.S., T.D. Pay, A.E. Marcillo, L.A. Botelho, and R.E. Isaaks. Effects of Electrical Stimulation upon Erythrocyte Oxygen Transport in Human Quadriplegia. Abstracts of the National Conference of the American Physical Therapy Association, June, 1991.

Nash, M.S., A. Street, A. Titta, A.E. Marcillo, and W.F. Millard. Somatotropin Secretion During Electrically-Stimulated Exercise in Human Quadriplegics. Abstracts of the National Conference of the American Physical Therapy Association, June, 1991.

Nash, M.S., R. Garcia, M.A. Fletcher, and T. Murphy. Lymphokine Responses to Electrically-stimulated Exercise in Sympathectomized Quadriplegics. *Med Sci Sports Exerc* 24(4):S61, 1991.

Andres, F.F., M.S. Nash, P. Spyropoulos, and J.R. Hughes. Ratings of Perceived Exertion In Quadriplegics During Electrical Stimulation Cycling. *Med Sci Sports Exerc* 24(4):S102, 1991.

Nash, M.S., M.S. Bilsker, S.M. Isaac, A.E. Marcillo, L.A. Botelho, and B.A. Green, M.T. Roundtree, and J.D. Shea. Electrically-Stimulated Exercise Training Promotes Ventricular Hypertrophy in Human Quadriplegics. *J Am Parapleg Soc* 14(2):65, 1991.

Nash, M.S., A.M. Levine, and M.T. Roundtree. Nutritional Analysis of Dietary Intake in Spinal Cord Injured Persons. *J Am Parapleg Soc* 14(2):90-91, 1991.

Isaac, S.M., M.S. Nash, A.E. Marcillo, and L.A. Botelho. Resting and Electrically-Stimulated Exercise Responses of Quadriplegics to Caffeine Ingestion. *Med Sci Sports Exerc* 22(2):510, 1990.

Nash, M.S., G.A. Winkler, P.B. Grumer, and K.J. Klose. Resting Metabolic and Electrocardiographic Responses of Quadriplegics to Caffeine Ingestion. Abstracts of the National Conference of the American Physical Therapy Association, June 1990.

Nash, M.S., N.G. Klimas, K.J. Klose, and M.A. Fletcher. Immune System Responses to Electrical Stimulation Cycle Ergometry in Human Quadriplegia. *Med Sci Sports Exerc* 22(2):749, 1990.

Nash, M.S., M.A. Fletcher, K.J. Klose, and B.A. Green. Functional Immunosuppression May Accompany Chronic Human Quadriplegia. *ASIA Abstracts Digest*. May, 1990.

Nash, M.S., J. Tehranzadeh, B.A. Green, and J.D. Shea. Effects of Electrical Stimulation on Osteodegeneration in Human Quadriplegia. *ASIA Abstracts Digest*. May, 1990.

Nash, M.S., A. Marcillo, K.J. Klose, and B.A. Green. Oxyhemoglobin Desaturation During Electrical Stimulation Cycle Ergometry in Ventilatory-Dependent Quadriplegia. *ASIA Abstracts Digest*. May, 1990.

Nash, M.S., and B.A. Green. Functional Electrical Stimulation in Spinal Cord Injury. Abstracts of the Annual Meeting of the American Association for the Advancement of Science. February, 1990.

Moser, P.E., A. Perry, M.S. Nash, A. LaPerriere, I. Lowenstyn, J. Devitt, and G. Steiner. The Effects of Aerobic Circuit Training on Metabolic Control, Lipid Profiles, and Cardiovascular Fitness in Adolescent Type I Insulin Dependent Diabetics. Abstracts of the Southeast District of the American College of Sports Medicine. February, 1990.

Ganz, W., V. Taasen, A. Heal, E.M. Leeds, M.S. Nash, J. Owens, B.A. Green, and A. Serafini. Selective Bone Loss in the Femurs of Quadriplegic and Paraplegic Patients. Abstracts of the Radiological Society of North America. July, 1987.

Ragnarsson, K.T., S. Pollock, J.S. Petrofsky, W. O'Daniel, R. Edgar, and M.S. Nash. Clinical Evaluation of Computerized Functional Electrical Stimulation in Spinal Cord Injury: A Multi-system Study. *Arch Phys Med Rehabil*, July, 1986.

Nash, M.S., K.M. Kessler, A.M. Fournier, and B.A. Green. Cardiac Adaptation Following Functional Electrical Stimulation Reconditioning in Human Quadriplegia. *Med Sci Sports Exerc* 18(2):S39-40, 1986.

Green, B.A., B.S. Brucker, M.L. Goldberg, and M.S. Nash. Computerized Closed-Loop Functional Electrical Stimulation. Abstracts of the American College of Neurosurgeons. May, 1985.

Nash, M.S., F.F. Andres, and D.E. Morse. Effects of Endurance Exercise upon Hyperglycemia and Nephropathy in the Genetic Diabetic Mouse. *Med Sci Sports Exerc* 17(2):182, 1985.

Andres, F.F., M.S. Nash, and D.E. Morse. Effects of Exercise upon Body Fat and Plasma Triglycerides in the Genetic Diabetic Mouse. *Med Sci Sports Exerc* 17(2):183, 1985.

Durstine, J.L., P.E. Smith, M.L. Rocchio, R.G. Reisling, M.S. Nash, and F.F. Andres. Anabolic Steroid Effect on High-Density Lipoprotein Cholesterol in Exercised Rats. *Med Sci Sports Exerc* 17(2):276, 1985.

Nash, M.S. Effects of Endurance Exercise upon Blood Glycoprotein and Glomerular Histoarchitecture in the Diabetic Mouse. Abstracts of the Midwest Meeting of the American Alliance for Health, Physical Education, Recreation, and Dance. February, 1984.

Armstrong, C.W., and M.S. Nash. Performance Error Identification as a Function of Visual and Verbal Training. Abstracts of the American Alliance for Health, Physical Education, Recreation, and Dance. April, 1983.

20. Other Works Accepted for Publication:

Nash, M.S., C.M. Montefusco, and B.A. Rhodes. Peripheral Vascular Response to Exercise-Induced and Post-Occlusive Reactive Hyperemia (PORH) in Quadriplegics. *Surg Forum* 41:498-99, 1990.

Nash, M.S. Computerized Functional Electrical Stimulation: An Emerging Rehabilitation Technology. *Trends in Rehabilitation*: 10-20, Spring, 1986.

PROFESSIONAL

21. Funded Research Performed:

Nash, M.S. (Principal Investigator). The Effects of Endurance Exercise upon Selected Blood Biochemical, Morphological, and Renal Histoarchitectural Variables in the Non-Insulin Dependent Diabetic Mouse. Faculty Research Award of the University of Toledo, Toledo, Ohio (\$ 4,700). June 1982.

Nash, M.S. (Principal Investigator). Effects of Exercise on Immunocompetence in Human Paralytics. American College of Sports Medicine Foundation (\$ 25,131). March 1991-February 1993.

22. Editorial Responsibilities:

- Medicine and Science in Sports and Exercise
- Journal of Applied Physiology

23. Professional and Honorary Organizations:

- Member, American College of Sports Medicine, 1985-present
- Member, National Spinal Cord Injury Association, 1985-present
- National Board of Directors, National Spinal Cord Injury Association, 1986-1991
- Board of Directors, South Florida Chapter- National Spinal Cord Injury Association, 1986-1988
- Executive Committee, National Spinal Cord Injury Association, 1987-1991
- Vice President for Research, National Spinal Cord Injury Association, 1987-1991

24. Honors and Awards:

a. Honors and Awards

- Certificate of Achievement, National Spinal Cord Injury Association, 1987, 1991.
- Research Associate, Grand Valley State College, Grand Rapids, Michigan, 1987.
- Certificate of Appreciation, Florida Physical Therapy Association, 1989.
- Certificate of Appreciation, American Heart Association of Greater Miami, 1990.
- Nominated, Honorary Member, American Physical Therapy Association, 1991.

b. Visiting Professorships

- Orlando Regional Medical Center and Humana Lucerne Rehabilitation and Spinal Injury Center, Orlando, Florida
- The Milton S. Hershey Medical Center, The Pennsylvania State University College of Medicine Hershey, Pennsylvania
- Grand Valley State College, Grand Rapids, Michigan
- Karolinska Institute, Stockholm, Sweden

25. Post-Doctoral Fellowships: None

26. Other Professional Activities:

a. Scientific Presentations at National and International Meetings

Exercise and Immunology. Annual Meeting of the American College of Sports Medicine. Seattle, Washington. June, 1993.

Autonomic Dysfunction: Immune Modifications and Exercise Responses in the Spinal Cord Injured. Annual Meeting of the American College of Sports Medicine. Seattle, Washington. June, 1993.

Catecholamine Influences of Micturition on Phenotypic and Functional Indices of Host Defense in a Quadriplegic. Annual Conference of the American Spinal Injury Association, San Diego, California. May, 1993.

Echocardiographically-Derived Wall Motion and Cardiodynamic Responses to Electrical Stimulation Cycle Ergometry and Lower Extremity Passive Motion. Annual Conference of the American Spinal Injury Association, San Diego, California. May, 1993.

Endogenous Pyrogen Activity Following Electrical Stimulation Cycling Exercise in Quadriplegics. Annual Meeting of the American College of Sports Medicine. Dallas, Texas. June, 1992.

Acute Endothelial Plasminogen Response to Electrically-Stimulated Cycling Exercise in Human Quadriplegics. First World Congress on Electricity and Magnetism in Biology and Medicine, Orlando, Florida. June, 1992.

Acute Effects of Electrically-Stimulated Cycling Exercise on Oxyhemoglobin Affinity in Quadriplegics. First World Congress on Electricity and Magnetism in Biology and Medicine, Orlando, Florida. June, 1992.

Influence of Electrically-Stimulated Cycling Exercise on H-Reflexes in Human Quadriplegia. First World Congress on Electricity and Magnetism in Biology and Medicine, Orlando, Florida. June, 1992.

Fibrinolytic Responses to DDAVP Infusion in Electrically-Stimulated Exercise Trained and Untrained Quadriplegics. First World Congress on Electricity and Magnetism in Biology and Medicine, Orlando, Florida. June, 1992.

Acute Serotonergic and Cortisol Responses of Quadriplegics to Electrically-Stimulated Cycling Exercise. Annual Conference of the American Spinal Injury Association, Toronto, Canada. May, 1992.

Aging with Spinal Cord Injury; The Physiologic Perspective: Immune System. National Institute of Disability and Rehabilitation Research Conference on Aging with Spinal Cord Injury, Denver, Colorado. March, 1992

Cardiologic and Immunologic Consequences of Paralysis and Exercise Reconditioning in the Paralyzed. 44th Annual Clinical and Scientific Conference of the American Kinesiotherapy Association. Key Biscayne, Florida. July, 1991.

Lymphokine Responses to Electrically-Stimulated Exercise in Sympathectomized Quadriplegics. Annual Meeting of the American College of Sports Medicine. Orlando, Florida, 1991.

Ratings of Perceived Exertion In Quadriplegics During Electrical Stimulation Cycling. Annual Meeting of the American College of Sports Medicine. Orlando, Florida, 1991.

Electrically-Stimulated Exercise Training Promotes Ventricular Hypertrophy in Human Quadriplegics. Annual Meeting of the American Spinal Injury Association. Seattle, Washington. April 1991.

Nutritional Analysis of Dietary Intake in Spinal Cord Injured Persons. Annual Meeting of the American Spinal Injury Association. Seattle, Washington. April 1991.

Open and Closed Loop Functional Electrical Stimulation: Today's Role and Tomorrow's Expectations. "Spinal Cord Injury: A Team Approach to Comprehensive Management and Integrated Research." University of Miami School of Medicine, Miami, Florida. January, 1991.

Peripheral Vascular Response to Exercise-Induced and Post-Occlusive Reactive Hyperemia (PORH) in Quadriplegics. 76th Annual Clinical Congress of the American College of Surgeons. San Francisco, California, October, 1990.

Effects of Electrical Stimulation on the Cardiorespiratory, Circulatory, and Musculoskeletal Systems. Eighth National Conference of Rehabilitation Medicine. Sao Laurengo, Brazil, October 1990.

Rehabilitation Engineering Technology: Reversal of Complications and Restoration of Function Following SCI. "Future Directions in Treatment of Spinal Cord Injury III." Allied Services, Scranton, Pennsylvania. September, 1990.

Immune System Responses to Electrical Stimulation Cycle Ergometry in Human Quadriplegia. Annual Meeting of the American College of Sports Medicine. Salt Lake City, Utah, May 1990.

Functional Immunosuppression May Accompany Chronic Human Quadriplegia. Annual Meeting of the American Spinal Injury Association (ASIA). Orlando, Florida, May, 1990.

Functional Electrical Stimulation in Spinal Cord Injury. Annual Meeting of the American Association for the Advancement of Science, New Orleans, Louisiana. February, 1990.

Spinal Cord Injury Update: Advances in the Basic Neurosciences. Annual Meeting of the National Spinal Cord Injury Association, Indianapolis, Indiana, August, 1989.

Functional Electrical Stimulation: Research and Clinical Update on Cycle Ergometry in Spinal Cord Injury. "Contemporary Rehabilitation Technologies in Spinal Cord Injury". The Walters Institute of Rehabilitation Medicine, Scranton, Pennsylvania. April, 1989.

Functional Electrical Stimulation Protocols. Annual Conference of the National Spinal Cord Injury Association, Denver, Colorado. August, 1988.

Cardiopulmonary Reconditioning with Computerized Functional Electrical Stimulation. "Innovative and Controversial Strategies in Rehabilitation V: Technology and Practice." University of Miami School of Medicine. Miami, Florida. December, 1987.

Rehabilitation Engineering Technologies: Reversal of Complications and Restoration of Function Following Spinal Cord Injury. "Future Directions in Treatment of Spinal Cord Injury". The Walters Institute of Rehabilitation Medicine, Scranton, Pennsylvania. October, 1987.

Electrical Stimulation Theory and Practice. Second Annual Rehabilitation Conference on Current Issues and Trends in Physical Rehabilitation. The Rehabilitation Institute of Virginia, Newport News, Virginia. September, 1987.

Evaluation of the Spinal Cord Injured for Electrical Stimulation. Second Annual Rehabilitation

Conference on Current Issues and Trends in Physical Rehabilitation. Rehabilitation Institute of Virginia, Newport News, Virginia. September, 1987.

Technology and Research in Spinal Cord Injury. Third Annual ROSE Rehabilitation Seminar. Saint Paul, Minnesota. July, 1987.

Functional Electrical Stimulation: Updated Research and Clinical Application. "Rehabilitation: Frontiers for the '90's." Newington Children's Hospital, Newington, Connecticut. March, 1987.

Clinical Assessment of the Prospective Candidate for Computerized Functional Electrical Stimulation. "Innovative and Controversial Strategies in Rehabilitation IV: Research and Practice." University of Miami School of Medicine. Miami, Florida. December, 1986.

Research Trends in Cardiac Rehabilitation. "Innovative and Controversial Strategies in Rehabilitation IV: Research and Practice." University of Miami School of Medicine. Miami, Florida. December, 1986.

Computerized Functional Electrical Stimulation: An Emerging Rehabilitation Technology. "Biotechnology: What the Future Holds for the Spinal Cord Injured Population". Elizabethtown Hospital and Rehabilitation Center of the Pennsylvania State University College of Medicine. Harrisburg, Pennsylvania. November, 1986.

Current Trends in Research: Functional Electrical Stimulation and Biofeedback. National Meeting of the Physical and Occupational Therapy Directors of the NIHR Regional Spinal Cord Injury Centers. Jackson Memorial Rehabilitation Center, Miami, Florida. October, 1986.

Applied Bioengineering and Computer Assisted Technology. Annual Conference of the National Spinal Cord Injury Association. Milwaukee, Wisconsin. July, 1986.

Physical Benefits of Functional Electrical Stimulation. Annual Conference of the National Spinal Cord Injury Association. Milwaukee, Wisconsin. July, 1986.

Cardiac Adaptation Following Functional Electrical Stimulation Reconditioning in Human Quadriplegia. Annual Meeting of the American College of Sports Medicine. Indianapolis, Indiana. May, 1986.

Cardiopulmonary Reconditioning in Spinal Cord Injury Through Computerized Functional Electrical Stimulation. "Controversies in Rehabilitation for Neurological Training". University of Miami School of Medicine, Miami, Florida. December, 1985.

Functional Electrical Stimulation: Today's Technology. Annual Meeting of the Paralyzed Veterans of America. Seattle, Washington. September, 1985.

The Four Center Study on the Effects of Functional Electrical Stimulation on Paralyzed Patients. National Engineering Foundation Meetings, "Neural Prostheses: Motor Control". Henniker, New Hampshire. August, 1985.

Effects of Endurance Exercise upon Hyperglycemia and Nephropathy in the Genetic Diabetic Mouse. Annual Meeting of the American College of Sports Medicine. Nashville, Tennessee, June, 1985.

Effects of Exercise Upon Body Fat and Plasma Triglycerides in the Genetic Diabetic Mouse. Annual Meeting of the American College of Sports Medicine. Nashville, Tennessee. June, 1985.

Anabolic Steroid Effects on High-Density Lipoprotein Cholesterol Subfractions in Exercised Rats. Annual Meeting of the American College of Sports Medicine, Nashville, Tennessee, June, 1985.

Cardiopulmonary Reconditioning: The Neglected Child of Spinal Cord Rehabilitation. "Controversies in Rehabilitation for Neurological Training". University of Miami School of Medicine, Miami, Florida, January, 1985.

Rehabilitation of Patients with Symptomatic Coronary Atherosclerotic Heart Disease. The Eigen Memorial Lecture Series, The Mount Sinai Medical Center of Cleveland, Cleveland, Ohio, September, 1983.

Performance Error Identification as a Function of Visual and Verbal Training. Annual Conference of the American Alliance for Health, Physical Education, Recreation, and Dance, Indianapolis, Indiana, April, 1983.

b. Invited Outside Lectureships

Factors Influencing Health and Well-Being; Considerations for Routine Use of Therapeutic Electrical Stimulation. "Therapeutic Outcomes from Functional Electrical Stimulation Exercise". Helen Hayes Hospital, Center for Rehabilitation Technology, West Haverstraw, New York, August, 1992.

Spinal Cord Injury: Progress on Spinal Cord Regeneration Research. Abbott-Northwestern Medical Center, Minneapolis, Minnesota, August, 1991.

The Miami Project: Research Update. Annual Meeting of the Florida Chapter of the American Academy of Orthotists and Prosthetists, St. Augustine, Florida, June, 1991.

Physiological Responses to Electrical Stimulation Cycling in Chronic Spinal Cord Injury. University of Rio de Janeiro, Rio de Janeiro, Brazil, October, 1990.

Clinical Research in Electrical Stimulation: Physiological Responses to Imposed Remobilization in Spinal Cord Injury. Newington Childrens Hospital, Newington, Connecticut, May, 1990.

Contemporary Advances in Neuroscience Research for the Spinal Cord Injured. Southeast District of the Florida Physical Therapy Association, West Palm Beach, Florida, September, 1989.

Functional Electrical Stimulation: Theoretical Applications for Therapeutic Remobilization and Restoration of Movement in Spinal Cord Injury. American Congress of Rehabilitation Medicine, Fourth Annual Regional Meeting, Minneapolis, Minnesota, April, 1989.

Practical Considerations in Inpatient Evaluation, Training, and Aftercare for Programs of Functional Electrical Stimulation. American Congress of Rehabilitation Medicine, Fourth Annual Regional Meeting, Minneapolis, Minnesota, April, 1989.

The Miami Project. Quarterly Meeting of the Florida Chapter of the American Academy of Orthotists and Prosthetists, Orlando, Florida, March, 1989.

The Miami Project: Synopses of Clinical and Research Activities in Spinal Cord Injury. Annual Meeting of the Florida Chapter of the American Academy of Orthotists and Prosthetists, Tallahassee, Florida, October, 1988.

Research Directions in Functional Electrical Stimulation: The Miami Program. Coalition for Medical Applications of Functional Electrical Stimulation, Orlando, Florida. September, 1988.

Functional Electrical Stimulation: A Therapeutic Intervention. Keynote Speaker for National Rehabilitation Week at The Tampa General Rehabilitation Center, Tampa, Florida. September, 1988.

Update on Modalities in the Rehabilitation of Spinal Cord Injury. Dade County Association of Rehabilitation Nurses, Jackson Memorial Rehabilitation Center, Miami, Florida. September, 1988.

Functional Electrical Stimulation Cycle Ergometry in Spinal Cord Injury. "A Seminar for Rehabilitation Professionals" at Capital Rehabilitation Hospital, Tallahassee, Florida. July, 1988.

The Miami Project: Research Update in the Basic and Applied Sciences. Annual Meeting of the Florida Claims Association, Miami, Florida. May, 1988.

Functional Electrical Stimulation: Its Role in the Comprehensive Treatment of the Spinal Cord Injured. Spinal Cord Injury Council of the State of Florida (Department of Labor and Employment Security, Division of Vocational Rehabilitation), Orlando, Florida. April, 1988.

Clinical Experiences with Functional Electrical Stimulation in Spinal Cord Injury. Wright State University, Dayton, Ohio. April, 1988.

Contemporary Medical Applications and Research Horizons in the Treatment of the Chronically Spinal Cord Injured. Grand Valley State College, Grand Rapids, Michigan. April, 1988.

Practical Aspects of Patient Selection and Treatment with Functional Electrical Stimulation. Butterworth Hospital, Grand Rapids, Michigan. April, 1988.

History of Spinal Cord Injury. "Spinal Cord Rehabilitation: A Practical Approach" sponsored by the Florida Physical Therapy Association, Southeast District. Fort Lauderdale, Florida. October, 1987.

Current Research and Future Trends in Spinal Cord Injury. "Spinal Cord Rehabilitation: A Practical Approach" sponsored by the Florida Physical Therapy Association, Southeast District. Fort Lauderdale, Florida. October, 1987.

Clinical Rehabilitation of the Spinal Cord Injured with Computerized Closed-Loop Functional Electrical Stimulation. Rehabilitation Institute of Sarasota, Sarasota, Florida. September, 1986.

Rehabilitation Potential in the Patient with Coronary Artery Disease. Dade County Association of Rehabilitation Nurses. August, 1986.

Pathophysiology and Rehabilitation of the Ischemic Heart. Humana Lucerne Spinal Injury Center, Orlando, Florida. July, 1986.

Exercise-based Rehabilitation Using Engineering Technologies. The Health and Fitness Institute, Doctors Hospital of Coral Gables. Coral Gables, Florida. July, 1986.

Rehabilitation of Patients With Ischemic and Other Heart Diseases. Annual Meeting of the Florida State Association of Rehabilitation Nurses. Tampa, Florida. May, 1986.

Computerized Functional Electrical Stimulation in the Treatment of the Chronically Spinal Cord Injured. Gateway Rehabilitation Center. Boston, Massachusetts. April, 1986.

Use of Functional Electrical Stimulation as an Adjunct to Traditional Rehabilitation Medicine in the Treatment of Spinal Cord Injury. Orlando Regional Medical Center. Orlando, Florida. February, 1986.

Practical Aspects of Treatment with Computerized Closed-Loop Functional Electrical Stimulation. Humana Lucerne Spinal Injury Center. February, 1986.

Functional Electrical Stimulation: It's Contribution to Rehabilitation of the Paralyzed Patient. Quarterly Meeting of the South Florida Health Care Administrative Forum. Cedars Medical Center, Miami, Florida. February, 1986.

The Role of Electrical Stimulation in the Comprehensive Treatment of the Spinal Cord Injured. National Board of Directors, The National Parkinson Foundation. Miami, Florida. January, 1986.

Biochemical Aspects of Muscle Transformation and Cardiac Implications of Exercise. Department of Orthopaedics, Metropolitan General Hospital, Case Western Reserve University School of Medicine, Cleveland, Ohio. November, 1985.

Exercise-Based Rehabilitation Following Traumatic Upper Motor Neuron Lesion: Can Classical Immobilization Deconditioning Be Reversed? University of Toledo, Toledo, Ohio. November, 1985.

Innovative Strategies in the Treatment of Spinal Cord Injury: The Role of Computerized Functional Electrical Stimulation. Charleston Area Medical Center, West Virginia University School of Medicine. Charleston, West Virginia. October, 1985.

Computerized Closed-Loop Functional Electrical Stimulation. Section on Neurosurgery of the Florida Medical Association. Hollywood, Florida. May, 1985.

The Value of Computerized Functional Electrical Stimulation in Chronic Paralysis. Quarterly Meeting of the Insurance Rehabilitation Study Group. San Antonio, Texas. March, 1985.

Effects of Exercise upon Blood Glycoproteins and Glomerular Histoarchitecture in the Genetic Diabetic Mouse. Sigma Xi Research Honorary Symposium. The University of Toledo and the Medical College of Ohio at Toledo. Toledo, Ohio. May, 1983.

Stress and Coronary Disease. Stress Management Workshop. Owens College, Toledo, Ohio. May, 1983.

Effects of Endurance Exercise Upon Glycoprotein Content and Glomerular Structure in the db/db Mouse. Midwest Meeting of the American Alliance for Health, Physical Education, Recreation and Dance. Indianapolis, Indiana. January, 1982.

Rehabilitation of Patients With Symptomatic Coronary Artery Disease. The Mount Sinai Medical Center of Cleveland, Cleveland, Ohio. January, 1982.

c. Other Professional Activities

- Member, Research and Education Committee, Spinal Cord Advisory Council- Department of Labor and Employment Security, Division of Vocational Rehabilitation, State of Florida,

1985-1989.

- Co-Chairman, National Coalition for Medical Applications of Functional Electrical Stimulation, Services Division, National Spinal Cord Injury Association, 1987-1989.
- Grant Reviewer, State of Florida High Technology and Industry Council's Applied Research Grants Program, 1988-89.
- Medical Advisory Board, The Alan T. Brown Foundation, 1988-present.
- Grant Reviewer, The Rick Hansen Research Society, 1991.

TEACHING

27. Teaching Awards Received:

Faculty Initiative Award, Division of Physical Therapy, Department of Orthopaedics and Rehabilitation, University of Miami School of Medicine. 1990.

28. Teaching Specialization (courses taught):

A. Course Master

**Division of Physical Therapy, Department of Orthopaedics and Rehabilitation
University of Miami School of Medicine**

- Therapeutic Physiology (1988-present)
- Pathology Qualifying Examinations (1991-present)
- Skeletal Muscle: Morphology and Physiology in Use, Disuse, and Development (1992)

Department of Exercise Science, University of Miami

- Exercise Prescription in Health and Disease (1985-88)
- Exercise Neurophysiology (1985-88)

Department of Anatomy, Medical College of Ohio at Toledo

- Special Topographic Dissection (1983)

Department of Health Promotion and Human Performance, University of Toledo

- Anatomy and Physiology Laboratory (1980-83)

B. Course Assistant/Lecturer

**Division of Physical Therapy, Department of Orthopaedics and Rehabilitation
University of Miami School of Medicine**

- Electrotherapy (1988-present)
- Neurophysiology (1988-present)
- Abnormal Human Motion (1988)
- Cardiopulmonary Physical Therapy (1989)

Department of Health Promotion and Human Performance, University of Toledo

- Anatomy and Physiology (1980-83)
- Exercise Physiology (1982-84)
- Exercise Test Technology (1982-84)
- Exercise Prescription (1982-84)

Department of Biology, University of Toledo

- Introduction to Biology (1976)
- Anatomy and Physiology Laboratory (1976)
- Microbiology Laboratory (1977)
- Prokaryotic Molecular Genetics (1977)

29. Thesis and Dissertation Advising:

Campbell, Mary Helen. A Comparative Study of Serum Lipoproteins in Pre-Menopausal Marathon Runners and Aerobic Dance Instructors. Masters Thesis, August, 1989. University of Miami, Coral Gables, Florida.

Moser, Patricia E. Comparisons of Aerobic and Anaerobic Circuit Training upon Metabolic, Endocrine, and Lipoprotein Variables in the Male Adolescent Insulin Dependent Diabetic. Doctoral Dissertation, July, 1989. University of Miami, Coral Gables, Florida.

Brooks, Jill. The Effect of Burn Injury on Marital Relationships. Doctoral Dissertation, June 1990. University of Miami, Coral Gables, Florida.

Lowenstyn, Ilke. Blood Lactate Accumulation in Short Course versus Long Course Swimming. Masters Thesis, June 1991. University of Miami, Coral Gables, Florida.

SERVICE

30. University Committee and Administrative Responsibilities:

A. Divisional

- Division Of Physical Therapy, Department of Orthopaedics & Rehabilitation;
 - Administrative Committee (1989-present)
 - Faculty Search Committee (1989, 1991)
 - Curriculum Committee (1989-1991)
 - Research Committee (1991-present)
 - Co-Director, Cardiopulmonary Laboratory (1992-present)

B. Departmental

- Department of Neurological Surgery;
 - Director, Computerized Functional Electrical Stimulation Program (1984-1989)
 - Executive Research Committee, University of Miami Comprehensive Pain and Rehabilitation Center (1988-Present)
- Principal Investigator, The Miami Project (1985-Present)

C. Institutional

- Member, University Wellness Committee (1989-1992)
- Member, Medical Sciences Subcommittee for the Protection of Human Subjects (1992-Present)

31. Community Activities:

- National Spinal Cord Injury Hotline, Baltimore, Maryland. 1984-Present

- Judge, Section on Neurological Research- Eastern Student Research Forum, University of Miami School of Medicine. 1985, 1989, 1991.
- Mentor, American Heart Association Summer Scholar Program. 1990.
- Judge, The Silver Knight Awards, Section on Science. The Miami Herald. 1986-1993.
- Community "Healthline", WMRZ Radio. January 1991, May 1991.
- Mentor, Research and Academics for Minorities Program. 1992.
- Member, Dade County Community Council. 1993

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. Date: January, 1994
Social Security: 016-42-6912

PERSONAL

2. Name: Rose Marie Rine
3. Home Phone: (305) 378-2159
4. Office Phone: (305) 284-4535
5. Home Address: 10265 S.W. 130 Lane
Miami, FL 33176
6. Current Academic Rank: Adjunct Assistant Professor
7. Primary Department: Orthopaedics and Rehabilitation,
Division of Physical Therapy
8. Secondary or Joint Appointments: N/A
9. Citizenship: USA
10. Visa Type: N/A

HIGHER EDUCATION

11. Northeastern University
Boston, Mass. 02115
Department of Experimental Psychology
PhD, title of dissertation: "The Role of Extraretinal Information on Egocentric Space Localization" 1993.

University of Connecticut
School of Allied Health
Storrs, Conn. 06268
Major: Allied Health Education
Physical Therapy/Pediatric Neurology; M.S., 1982

University of Connecticut
Physical Therapy
B.S. 1973

12. Non-Institutional:

"Management of Balance Disorders and Dizziness", Cedars Medical Center, Miami, FL Feb. 20-21, 1992

"Neurocom Balance Clinical Integration Seminar", Neurocom International, Clackamas, OR; Nov. 2, 1991

"II Step - Contemporary Management of Motor Control Problems Conference". July 6-13, 1990 at
University of Oklahoma, Norman Oklahoma; sponsored by Foundation for Physical Therapy 4.8
C.E.U.'s.

HIV/AIDS: Certificate
Sponsored by Florida Physical Therapy Association in Sept. 1990

"New Dimensions in the Development of Movement", 1990 Annual Conference, June 24, 1990, sponsored
by the American Physical Therapy Association, Sections on Neurology and Pediatrics, 0.8 C.E.U.'s.

"Practical Management of Spasticity" Tufts University School of Medicine, New England Medical Center Hospital, April 11-13, 1984, 1.7 C.E.U.'s.

"Time Management Seminar for Human Service Personnel", sponsored by Massachusetts Chapter of A.P.T.A., August, 1984.

"Neurodevelopmental Treatment" sponsored by the University of Massachusetts Medical School, May 1982, 1.0 C.E.U.'s

"Hemispheric Specialization" sponsored by Boston University, September, 1979.

"A Neurophysiological Approach to CNS Dysfunction" sponsored by Continuing Education Programs of America, Hartford, Conn., March 23-24, 1979, 1.0 C.E.U.'s.

"Developmental Disabilities" sponsored by Texas Chapter of the A.P.T.A., Feb. 18-19, 1978, 1.3 C.E.U.'s

"Neurophysiological Basis of Patient Treatment", A.P.T.A. CSM, Orlando Florida, February, 1978, 1.3 C.E.U.'s.

"Biofeedback", by Texas Chapter of the A.P.T.A., May, 1977, 0.7 C.E.U.'s.

"Similarities, Differences, & Integration-Three Conceptual Presentations and Three Clinical Practitioners" sponsored by A.P.T.A. February 9, 1977, 1.4 C.E.U.'s.

13. Certification, licensure:

Massachusetts	2293	exp. 1/31/94
Florida	PT0006843	exp. 1/31/95

EXPERIENCE

14. Academic:

Adjunct Assistant Professor
University of Miami School of Medicine
Division of Physical Therapy
5915 Ponce de Leon Blvd.
5th Floor, Plumer Bldg.
Coral Gables, FL

7/1989 - present; Responsibilities include teaching/coordinator of Neurorehabilitation I and II, lecturing in several courses (Neuroanatomy, Evaluation and Abnormal Human Motion), Curriculum Committee 1989-1992, Research Committee 1989-1991, and Faculty Search Committee Spring, 1991.

Lecturer in physical therapy:
Northeastern University
Boston Bouve College of Human Development Professions
Huntington Avenue
Boston, MA
1984-1988

courses taught include pediatric neurology, advanced therapeutic exercise, neuroanatomy, pediatrics, and graduate courses in the advanced masters neurology track (Topics in Neurodevelopment, Evaluation and Treatment of the Neurologically Involved Child).

15. Non-Academic:

Associate
Physical Therapy Associates, University of Miami
Clinical practice specialty in balance evaluation & pediatric/neurology
Miami, FL
1991 - Present

Easter Seals
Consultant - Public School Contracts
484 Main St.
Worcester, MA; 1988 - 89

Private Consultant:

Massachusetts, Rhode Island, and Connecticut
pediatric specialty, public school consults
1978 to 1989

Director of Pediatrics:
Physical Therapy Associates
administrative, training, and consulting responsibilities
1982 - 1984

Worcester Public Schools
Worcester, Massachusetts
1980 - 1982

Private Practitioner/Consultant:
San Antonio, Texas
Public schools and facilities for developmentally disabled
1976 - 1978

Director of Rehabilitation:
Mission Road Foundation
San Antonio, Texas
1976 - 1978

Physical Therapy Services, Inc.
Worcester, Massachusetts
1975 - 1976

Hahnemann Hospital
Worcester, Massachusetts
1973 - 1975

16. Military:

None

PUBLICATIONS

17. Books and monographs published:

Course Handbook
"Physical Therapy in The Public Schools"
University of Connecticut, 1984.

"Provision of Physical Therapy in the Public School Environment"; Northeastern University Press
1985

18. Juried or refereed journal articles and exhibitions:

ABSTRACT:

"Comparison of Sway in Double Versus Single Leg Stance in Unimpaired Adults." R. Rine et al.
American Physical Therapy Association Annual Conference, Physical Therapy, Vol. 73:6, Supplement:
June 1993. (PO-146R-T)

"Quantification of Gait Parameters in Patients with Parkinson's Disease - A Pilot Study." R. Rine et
al. American Physical Therapy Association Annual Conference, Physical Therapy, Vol. 73:6,
Supplement: June 1993. (PO-145R-T)

"The Effects of Leg Dominance and AFO on Static and Dynamic Balance Abilities." R. Rine et al.
American Physical Therapy Association Annual Conference, Physical Therapy, Vol. 73:6, Supplement:
June 1993. (PL-256R-M)

The Association for Research in Vision and Ophthalmology, Investigative Ophthalmology & Visual
Science Annual Meeting Abstract Issue (May 1993). "Extraretinal Eye Position Information Predicts
Perceived Target Localizations In Normally Lighted Environments", R.M. Rine and A. Skavenski, No.
380-29, p. 778.

Alexander Graham Bell Association, (June 1992) Annual Conference "Balance Abilities and Strategies
of Children with Hearing Impairment." Rine, Lindeblad, et al. 1992 Alexander Graham Bell
Association Convention Program, p. 130.

Alexander Graham Bell Association Convention Program, "Identified Deficits in Motor Skill of Profoundly Hearing-Impaired Children", p. 42-43, Lindeblad, S. and Rine, R.

"Reliability of Measures of Cadence and Velocity", King B., Fletcher R., and Rine R., American Physical Therapy Association Annual Conference, June 1992. *Physical Therapy* 72:6, S58.

"The Effect of Supine Stander vs Chair on Target Behaviors: A Case Study", Rine R., Masin H., and Keir E., American Physical Therapy Association Annual Conference, June 1992. *Physical Therapy* 72:6, S31.

"Use of Angel-Angle Diagrams to Analyze Effects of Lower Extremity Bracing in Children with Cerebral Palsy" Rine R., Ward J., and Lindeblad S, American Physical Therapy Association, June 1992. *Physical Therapy* 72:6, S57-58.

"Developmental Changes of Balance Abilities in Hearing Impaired Children" Rine R., and Miyahara M, American Physical Therapy Association, June 1992. *Physical Therapy* 72:6, S 32.

"Reliability invalidity of the Motion Analysis Expert Vision Systems". *Physical Therapy*, Vol 71:6, Supplement: June, 1991.

"Comparison of the Effects of Ankle-Foot Orthoses on the Gait Parameters and Standing Posture of Children With Lower Extremity Spasticity". *Physical Therapy*, Vol 71:6, Supplement: June, 1991.

"Standing Balance Responses to Tilt Board Perturbation in Hearing Impaired Children as Compared to Age Matched Normals". *Physical Therapy*, Vol 71:6, Supplement: June, 1991.

"Inter-Rater and Test-retest Reliability of One-Leg Standing Balance Test on Hearing Impaired Children." *Pediatric Physical Therapy*, Vol 2:4, Winter 1990, Rine, R., Vergara, K., Gostin, J., and Mattson, K.

POSTERS:

"Comparison of Sway in Double Versus Single Leg Stance in Unimpaired Adults." R. Rine, M. Voight, K. Briese, and C. Powell, American Physical Therapy Association Annual Conference,

"Quantification of Gait Parameters in Patients with Parkinson's Disease - A Pilot Study." R. Rine, J. Ward, and B. King, American Physical Therapy Association Annual Conference.

The Association for Research in Vision and Ophthalmology Annual Meeting (May 1993).

"Extraretinal Eye Position Information Predicts Perceived Target Localizations In Normally Lighted Environments", R.M. Rine and A. Skavenski.

XIth International Symposium on Posture and Gait, (May 1992) "Comparison of the Effects of Ankle-Foot Orthoses on Gait & Standing Posture on Children with Lower Extremity Spasticity." Rine, Lindeblad, Ward, et al

Alexander Graham Bell Association, (June 1992) Annual Conference "Balance Abilities and Strategies of Children with Hearing Impairment." Rine, Lindeblad, et al

Alexander Graham Bell Association Convention Program, "Identified Deficits in Motor Skill of Profoundly Hearing-Impaired Children", p. 42-43, Lindeblad, S. and Rine, R.

"Reliability of Measures of Cadence and Velocity", King B., Fletcher R., and Rine R., American Physical Therapy Association Annual Conference, June 1992.

"The Effect of Supine Stander vs Chair on Target Behaviors: A Case Study", Rine R., Masin H., and Keir E., American Physical Therapy Association Annual Conference, June 1992.

"Use of Angel-Angle Diagrams to Analyze Effects of Lower Extremity Bracing in Children with Cerebral Palsy" Rine R., Ward J., and Lindeblad S, American Physical Therapy Association, June 1992.

"Developmental Changes of Balance Abilities in Hearing Impaired Children" Rine R., and Miyahara M, American Physical Therapy Association, June 1992.

"Reliability and Validity of the Motion Analysis Expert Vision Systems", American Physical Therapy Association Annual Conference, June 1991. Rine & Werner

"Comparison of the Effects of Ankle-Foot Orthoses on the Gait Parameters and Standing Posture of Children With Lower Extremity Spasticity", American Physical Therapy Association National Conference, 1991. Rine, Lindeblad, Blaker, Verdin.

"Standing Balance Responses to Tilt Board Perturbation in Hearing Impaired Children as Compared to Age Matched Normals" American Physical Therapy Association Conference, 1991. Rine, Gostin, et al

Poster Presentation: American Physical Therapy Association, Combined Sections Meeting; Orlando, FL (February 1991). "Reliability of One-Legged Standing Balance Test on Profound Hearing Impaired Children." Rine, Gostin, et al

ARTICLES:

"Comparison of Effects of Ankle-Foot Orthoses on Gait and Standing Posture" Proceedings, International Symposium on Posture and Gait, 1992. Vol II 415-418.

"Head and Trunk Movement Responses in Healthy Children to Induced versus Self-Induced Lateral Tilt" Milette, D. & Rine, R.M.(1986), PHYSICAL THERAPY 67:11, 1697-1702

PLATFORM PRESENTATIONS:

"Effect of PNF on Performance of Vertical Leap" Hayes, S., Rine, R. M., Cook, G., Zverina, B., Updegraff, M.

"The Effects of Leg Dominance and AFO on Static and Dynamic Balance Abilities." R. Rine, M. Voight, D. Laux, and P. Apfel, American Physical Therapy Association Annual Conference.

BOOK REVIEWER:

JOURNAL OF THE AMERICAN PHYSICAL THERAPY ASSOCIATION
Submitted for pub. reviews 1985, 1987 and present, II STEP

"Right in the Middle: Selective Trunk Activity in the Treatment of Adult Hemiplegia," by Davies, Patricia M. New York, N.Y. Springer-Verlag, 1990, paperback, 266 pp, 513 illus. To be published in the Physical Therapy Journal.

Video Tape, American Physical Therapy Association "Careers in Physical Therapy" (to be published in A.P.T.A. Journal).

19. Other Works and publications:

None

20. Other works accepted for publications:

None

PROFESSIONAL

21. Funded Research Performed:

Selected by NeuroCom International to collect normative data on the Smart Balance Master System, January 1992

22. Editorial responsibilities:

None

23. Professional and Honorary Organizations:

American Physical Therapy Association
Member 1971 - present

Pediatric Section, A.P.T.A.
Member 1973 - present

Southwest Regional Director
Pediatric Section, A.P.T.A. 1976

Neurology Section, A.P.T.A.
Member 1985 - present

Florida Physical Therapy Association
1989-present

Phi Kappa Phi
University of Connecticut Chapter

American Academy for Cerebral Palsy & Development Disabilities, Associate member
1990-present.

Pediatric Special Interest Group, (FPTA) Miami, Florida, 1990.

Central Massachusetts Health Systems Agency
Board Member, Allied Health Constituency
1985 - January, 1988

Central District Massachusetts Chapter, A.P.T.A.
Treasurer 1981 - 1982
Chairperson 1982 - 1986
Co-Chairperson 1986 - 1989

Delegate to National Convention, A.P.T.A.
1984, 1985, 1986, 1987, 1988.

24. Honors and Awards:

Appointment:
Adjunct Clinical Associate, Eunice Kennedy-Shriver Center
University Affiliated facility
Physical Therapy Department
1986 - 1987, 1987 - 1988

Phi Kappa Phi
Nominated and selected on the basis of work on masters degree; Current member

Central Massachusetts AHEC Grant
Project Director, Survey and Educational programming for
Central District, Massachusetts Chapter, APTA
1983

*See Teaching Awards

25. Post-Doctoral Fellowships:

None

26. Other Professional Activities:

Secretary and Board Member, Pediatric Section of the American Physical Therapy Association, 1993-1995

Assigned Abstractor for American Physical Therapy Association - "Archives of Neurology"

Abstract/Reviewer, Journal of the American Physical Therapy Association

Invited Book Reviewer - Prentice-Hall, July, 1990.

Input for planned revisions of Integrated Therapeutic Exercise

Invited Speaker:

F.L.A.S.H.A. Annual Conference

"Role of the Physical Therapist on the Interdisciplinary Team for the Balance Disordered Patient."

"The Case Presentation-Balance Disorders."

"Panel Discussion Participant."

October 2 & 3rd 1992

Florida Chapter American Physical Therapy Association

Southeast District

Education Program Coordinator & Speaker

"Stroke Rehabilitation: A Practical Approach"

January 24-25, 1992

Florida Chapter American Physical Therapy Association

Annual Meeting - Fall Conference

September 6-9, 1990

"Update on Clinical Neurophysiology and Neuro Treatment Techniques"

Mailman Center for Child Development

Team Meeting - Inservice

"Research in Pediatric Physical Therapy"

March 1990

Multiple Sclerosis Society Annual Meeting, Fort

Lauderdale, Florida

"The Team Approach in Rehabilitation of The Client

With Multiple Sclerosis"; March, 1990.

Massachusetts Special Education Directors Convention "Educational vs Medical Model: Roles for Therapists in Public Schools"; May, 1988.

Central Massachusetts SPED Convention
"Utilization of Physical and Occupational Therapists in Educational Programs"
October, 1987

Boston College/Montessori Training Program
"Neuromotor Development"
July, 1985 and 1986

Massachusetts Chapter, APTA,
"Provision of Physical Therapy in the Public Schools"
August, 1985

University of Massachusetts Medical School
Center for Continuing Education
"Gait Analysis of the Cerebral Palsied Child"
October, 1985

TEACHING

27. Teaching Awards Received:

"Innovative Teaching Award"
University of Miami
Department of Orthopaedics and Rehabilitation
Division of Physical Therapy
1990

"Best Teacher Award"
Elected by Class of 1990, University of Miami, School of Medicine, Division of Physical Therapy,
December, 1990.

28. Teaching Specialization (courses taught):

PTS 614 - Therapeutic Interventions for the Neurologically Involved I
PTS 615 - Therapeutic Interventions for the Neurologically Involved II

29. Thesis and Dissertation Advising:

University of Miami, Division of Physical Therapy

Currently, I have several investigations ongoing; I have accepted groups of students to participate in the projects to satisfy their research requirements of a Project (versus a thesis). I am the principal investigator or co-investigator. The projects and students include:

1989-90 "The Effect of The PAPPO on the Parameters of Gait"; currently preparing manuscript for publication; K. Blaker, A. Verdin, T. Higbie-Smith & M. Gropper.

**Rose Marie Rine
Curriculum Vitae**

- 1989-90 "Effect of PNF on Performance of Vertical Leap", Cook, G., Zverina, B., and Updegraff, M.
- 1990-91 "Comparison of Balance Responses in Profound Hearing Impaired vs Non-Impaired Children."; K. Mattson & J. Gostin.
- 1990-91 "The Effect of The Use of Supine Stander on Self Stim Behavior - A Case Study"; E. Keir.
- 1990-91 "The Effect of The Use of Supine Stander on Feeding Behaviors - A Case Study"; R. Ditzinger.
- 1991-92 - "Quantification of Kinematic and Temporal Characteristics of Sit to Stand in Parkinson's Patients"; R. Fletcher.
- 1991-92 - "Kinematic Parameters of Gait in Parkinson's Patients"; B. King.
- 1991-92 - "Analysis of Gait in Parkinson's Patients Using Footprint Analysis"; J. Ward
- 1991-92 - "Effect of Leg Dominance on Balance Abilities"; P. Apfel, D. Laux, and C. Brakeville. (co-investigator with M. Voight)
- 1992-93 - "Development of Balance Responses in Profound Hearing Impaired", co-investigator with Sue K.-Lindeblad; Students: L. Fazioli, L. Kerzner
- 1992-93 - "Gross and Fine Motor Skills of Children with Profound Hearing Impairment"; co-investigator with Sue K. Lindeblad; Students: D. Rossman and S. Taylor.
- 1992-93 - "Balance abilities following ACL Repair" co-investigator with M. Voight; Students: K. Briesse and C. Powell

Northeastern University, BBCHDP, Dept. of Physical Therapy:

Principal Advisor -Advanced Masters in P.T., Neurology Track June, 1987 "A look at the Development of Early Walking through Gait Analysis."

Principal Advisor - June, 1985 "Peabody Developmental Motor Scales: Predictive Value of an Abbreviated Version."

Principal Advisor - February, 1985 "An Inter-rater Reliability Study of a Balance Test."

Co-Investigator and Principal Advisor - June, 1984 "Balance Responses to Induced vs Self Induced Tilt in Children 6-8 years old".

SERVICE

30. University Committee and Administrative Responsibilities:

University of Miami School of Medicine
Division of Physical Therapy

Curriculum Committee Task Force on Pathology Content, Chairperson 1990.

Curriculum Committee 1989, 1990, 1991

Retreat Planning Committee, 1990

Research Committee, 1989, 1990, 1991

Development of "Guidelines for Student Research" (manual).

Task Force - Faculty Manual

Faculty Search Committee, Division of Physical Therapy, 1991.

Presentations at "Round Table" meetings (within Division of Physical Therapy) sharing of research ideas/results.

Acceptance/Interview; 1990 - Interview of **16** students for acceptance to the program; 1991 - Interview of **13** students for acceptance into the program; 1992.

Student Advisor (13 students)

Northeastern University; Boston Bouve College, Physical Therapy Dept.

- Chair, Curriculum Committee
- Graduate Studies Committee
- Student Advising

31. Community Activities:

Koury League Baseball, score keeper, 1993.

Killian Girls Soccer, Booster Club, 1992.

Koury League Baseball, score keeper, 1990.

MAGEC Project - Speaker and development of teaching materials 1989 and 1990

Shrewsbury Youth Soccer, Assistant Coach, Minis 1988-1989.

Shrewsbury Middle School, Parents Advisory Committee, 1986-1989.

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

1. *Date:* *August 30, 1993*
Social Security No: *321-42-9242*

PERSONAL

2. Name: Kathryn E. Roach, Ph.D., P.T.,
3. Home Phone: (305) 598-7428
4. Office Phone: (305) 284-4535
5. Home Address: 11443 SW 110 Lane
Miami, FL 33176
6. Current Academic Rank: Assistant Professor
7. Primary Department: Orthopaedics & Rehabilitation
Division of Physical Therapy
8. Secondary
or Joint Appointments: None
9. Citizenship: USA
10. Visa Type: None

HIGHER EDUCATION

11. Institutional (institution; degree; date conferred):

University of Illinois at Chicago, Chicago, IL
School of Public Health
Doctor of Philosophy in Public Health Science- Epidemiology
with collateral in Gerontology - 1987-1991

Washington University, St. Louis, MO
Degree: Master of Health Sciences in Physical Therapy - 1982-1985

University of Illinois at Chicago, Chicago, IL
School of Associated Medical Sciences
Degree: Bachelor of Science in Physical Therapy - 1972-1974

Indiana University, Bloomington, IN
Degree: Bachelor of Arts in Biological Sciences - 1968-1972

12. Non-Institutional (description; dates):

Use and Abuse of Physical Agents: Peoria,IL - 1975

Diagnostic Muscle Testing: Chicago, IL - 1975

Management and Supervision: Chicago,IL - 1975

Chest Physical Therapy:Chicago,IL - 1975

PNF:Introduction to Theory and Practice: Chicago,IL - 1976

American Burn Association Conference: Chicago, IL - 1976

Cancer and Physical Therapy Involvement with the Cancer Patient: Chicago,IL - 1976

Styles of Supervision: Chicago, IL - 1976

Exercise Physiology: Chicago, IL - 1977

Introduction to Cardiac Rehabilitation: Chicago, IL - 1977

Cardiac Rehabilitation: Chicago,IL - 1977

Multidisciplinary Approach to the Management of the Diabetic Patient:
Chicago,IL - 1978

Lower Extremity Prosthetics for Physical Therapists: Chicago, IL - 1978

Bay Area Conference on Orthopaedics and Sports Medicine-Workshop on
Peripheral Joint Mobilization: San Francisco, CA - 1978

Bay Area Conference on Orthopaedics and Sports Medicine-Workshop on Joint
Mobilization: San Francisco, CA - 1979

Introduction to the Evaluation and Mobilization of the Spine: Boston, MA - 1980

Mckenzie's Basic Course in the Treatment of the Lumbar Spine: St. Louis, MO -
1981

Cybex Isokinetics Seminar: Las Vegas, NV - 1984

APTA Annual Conference: Las Vegas, NV - 1984

APTA Annual Conference: New Orleans, LA - 1985

APTA Annual Conference: Chicago, IL - 1986

APTA Annual Conference: San Antonio, TX - 1987

American College of Rheumatology Conference: Cincinnati, OH - 1989

American College of Rheumatology and Arthritis Health Professions Joint Midwest Regional Conference: Chicago, IL - 1990

American Society on Aging, Comprehensive Geriatric Assessment: Chicago, IL, 1990

American College of Rheumatology Conference: Seattle, WA - 1990

Arthritis Foundation Fellows Conference: Snowbird, UT - 1991

American Physical Therapy Association Conference: Boston, MA - 1991

American Physical Therapy Association Conference: Denver, CO - 1992

Arthritis Health Professions Association, Immunology and Arthritis Course: Atlanta, GA - 1992

American College of Rheumatology Conference: Atlanta, GA - 1992

Design and Management of Outcomes/Effectiveness Research in Physical Therapy: Alexandria, VA - 1992

American Physical Therapy Association Conference: Cincinnati, OH - 1993

Florida Physical Therapy Association Conference: Orlando, FL - 1993

Cardiopulmonary Aging: Orlando, FL - 1993

COURSES COORDINATED

Introduction to Clinical Research in Physical Therapy: St. Louis, MO - 1985

Management of the Lower Extremity Amputee for the Physical Therapy Assistant:
St. Louis, MO - 1985

13. Certification, licensure (description; board or agency; dates):

Illinois License No.-070-001980 current
Missouri License NO.-R0485 current
Florida License NO.-PT0007741 current

EXPERIENCE

14. ACADEMIC (institutions; rank/status; dates):

Assistant Professor
University of Miami School of Medicine
Division of Physical Therapy
Coral Gables, FL
1991-Present

Teaching Assistant for Principles of Epidemiology and Applied Epidemiology
School of Public Health, Epidemiology and Biostatistics
University of Illinois, Chicago, IL

Lecturer
Program in Physical Therapy
Washington University
St. Louis, MO
1983-1987

15. Non-Academic (employers; title; responsibilities; dates):

Consulting Physical Therapist
Excellcare Rehabilitation
Geriatrics Prospect Heights, IL
1990-1991

Research Project Coordinator
Health Services Research and Development Field Program
Department of Veterans Affairs
Hines Hospital, Hines, IL
1988-1991

Contract Physical Therapist
Rehabilitation Systems of Illinois, Oak Park, IL
1987-1988

Physical Therapy Supervisor
Barnes/IWJ Home Health Agency
Irene Walter Johnson Institute of Rehabilitation
Washington University, St. Louis, MO
1984-1987

Staff Physical Therapist
Irene Walter Johnson Institute of Rehabilitation
Washington University
St. Louis, MO
1981-1984

Director of Physical Therapy
Northwest Orthopaedic Rehabilitation Center
Chicago, IL
1978-1981

Clinical Supervisor
Mercy Hospital and Medical Center
Chicago, IL
1976-1978

Senior Staff Therapist
Cook County Hospital
Chicago, IL
1975-1976

Junior Staff Therapist
Cook County Hospital
Chicago, IL
1974-1975

16. Military (branch; rank; responsibilities; dates): None

PUBLICATIONS [author(s) (in actual precedence of authorship); title; publisher or journal name; date; page numbers]

16. Books and monographs published:

Roach KE: The Epidemiology of Musculoskeletal Disorders and their Associated Disability in the Elderly. *Orthopaedic Physical Therapy Clinics of North America* 1992;2:215-224.

Van Dillen LR, Roach KE. Activities of Daily Living. in Scully and Barnes (eds), *Physical Therapy*, Lippincott, 1989.

17. Juried or refereed journal articles and exhibitions:

Roach KE, Brown M, Ricker E, Altenburger, Tompkins J: Screening for Serious Back Problems. *Journal of Orthopaedics and Sports Physical Therapy* 1993 (submitted for publication)

Roach KE, Matinez MA, Anderson N. Musculoskeletal Pain in Student Instrumentalists: A Comparison to the General Student Population. *Medical Problems in Performing Artists* 1993 (submitted for publication)

Hecox R, Roach KE, DasVarma JM, Giraud JE, Davis CM, Neulen K. Functional Independence Measurement of Patients Receiving Easy Street as Part of a Therapeutic Protocol: A Comaparative Study. *Physical & Occupational Therapy in Geriatrics* 1993 (submitted for publication)

Roach KE, Persky V, Miles T, Budiman-Mak E: Biomechanical Aspects of Occupation and Osteoarthritis of the Hip: A Case-Control Study. *Journal of Rheumatology* 1993 (submitted for publication)

Budiman-Mak E, Burdi MD, Roach KE, Weaver FM: Managment of Painful Shoulder in a Walk-in Clinic *Medical Clinics* 1992 (submitted for publication)

Budiman-Mak E, Conrad KJ, Roach KE, Moore JE, Lertratanakul Y, Koch AE, Froelich C, Clark NJ: Foot Orthosis in Preventing Foot Deformity in Rheumatoid Arthritis. *Arthritis and Rheumatism* 1992 (submitted for publication)

Budiman-Mak E, Roach KE, Stuck R, Spencer F, Palizo T, Conrad KJ: Radiographic Measurement of Hallux Valgus in the Rheumatoid Arthritic Foot. *Journal of Rheumatology* 1992 (accepted for publication)

Budiman-Mark E, Conrad KJ, Roach KE. The Foot Function Index: A Measure of Foot Pain and Disability. *Journal of Clinical Epidemiology* 1991;44:561-570.

Roach KE, Budiman-Mak E, Songsiridej N, Lertratanakul Y. Development of a Shoulder Pain and Disability Index. *Arthritis Care & Research* 1991;4:143-149.

Roach KE, Miles T. Normal Hip and Knee Active Range of Motion: The Relationship to Age. *Physical Therapy* 1991;71:656-665.

Roach KE, Van Dillen LR. Development of an Acute Care Index of Function for the Neurological Patient. *Physical Therapy* 1988;66:1102-1108.

Van Dillen LR, Roach KE. Reliability and Validity of an Acute Care Index of Function for the Neurological Patient. *Physical Therapy* 1988;66:1098-1101.

Van Dillen LR, Roach KE. Interrater Reliability of a Clinical Scale of Rigidity. *Physical Therapy* 1988;68:1679-1681.

18. Other works and publications:

Roach KE. The Association between the Biomechanical Aspects of Past Occupation and Osteoarthritis of the Hip in Men. Doctoral Dissertation, University of Illinois at Chicago, 1991.

Budiman-Mak E, Conrad K, Roach K, Moore J, Lertratanakul Y, Koch A, Skosey J, Froelich C, Joyce-Clark N. Can Foot Orthoses Prevent Deformity in Rheumatoid Arthritis? *Arthritis and Rheumatism* 1993 (submitted for publication)

Roach KE, Persky V, Miles T, Budiman-Mak E. Lower Extremity Disability Associated with Osteoarthritis of the Hip in Men. *Physical Therapy* 1992; 72 (Supp.) S37.

Roach KE, Persky V, Miles T, Budiman-Mak E. The Association between Past Recreational Activity and Osteoarthritis of the Hip in Men. *Physical Therapy* 1992;72 (Supp.) S42.

Roach KE, Budiman-Mak E, Persky V, Miles T. The Association between the Biomechanical Aspect of Past Occupation and Osteoarthritis of the Hip in Men. *Arthritis and Rheumatism* 1992 (accepted for publication)

Roach KE, Brown M, Ricker E, Altenberger P, Tompkins J. Development of a Data-Based Screening Instrument for Patients with Low Back Pain. *Physical Therapy* 1992;73,S31.

Budiman-Mark E, Conrad KJ, Roach KE. Construct and Criterion Validity of the Foot Function Index. *Arthritis and Rheumatism* 1991 (accepted for publication).

Roach KE, Miles T. Normal Range of Motion of the Hip and Knee: The Effect of Age, Race and Sex. *Physical Therapy* 1991;71 (Supp.) S73.

Budiman-Mark E, Conrad KJ, Roach KE. Reliability of the Foot Function Index. *Arthritis & Rheumatism* 1990;33 (9 Supp.):S139.

Roach K, Budiman-Mark E, Songsiridej N, Lertratanakul Y. Development of a Shoulder Pain and Disability Index. *Arthritis & Rheumatism* 1989;32(4 Supp.):S98.

Budiman-Mark E, Songsiridej N, Lertratanakul Y, Roach K. Cost Effective Management of the Painful Shoulder. *Arthritis & Rheumatism* 1989;32(4 Supp.):S97.

Van Dillen LR, Nuessen J, Montgomery E, Roach K, Delitto A. A Description of an All-Day Parkinson's Evaluation. *Physical Therapy* 1988;68:864.

Roach KE. Home Health Physical Therapy: Demographics. *Physical Therapy* 1987;67:794.

Roach KE, Delitto A, Hall CM, Rose SJ. Reliability of an Indirect Measure of Hamstring Length in Patients with Low Back Pain. *Physical Therapy* 1986;66:757.

Roach KE, Delitto A, Mueller MJ, Rose SJ. Reliability of a Method for Measuring Upper Abdominal Strength in Patients with Low Back Pain. *Physical Therapy* 66:757,1986.

Van Dillen LR, Roach KE. Validity of an Acute Care Index of Function. *Physical Therapy* 1986;66:780.

Roach KE, Van Dillen LR. Functional Status Assessment for Use in Acute Care. *Physical Therapy* 1985;65:722.

Van Dillen LR, Roach KE. Interrater Reliability of an Acute Care Functional Status Instrument. *Physical Therapy* 1985;65:724.

Roach KE, Delitto A, Montgomery E, Perlmutter J. Development of a Self-Administered Home Assessment for Use with Parkinson's Patients. *Physical Therapy* 1984; 64:732.

Van Dillen LR, Roach KE. Interrater Reliability of a Clinical Assessment of Rigidity. *Physical Therapy* 1984;64:732.

19. Other works publications and abstracts:

20. Other works accepted for publication

PROFESSIONAL

21. Funded Research Performed (include all grants received in the last five years, identifying the principal investigator):

Agency: VA HSR&D Service to Hines VAH
Title: Cost Effective Management of the Painful Shoulder
Role: Co-Investigator
Total Costs: \$2847
Principal Investigator: Elly Budiman-Mak
Study Period: 6/88 -10/88

Agency: Arthritis Foundation: Doctoral Dissertation Award
Title: Association between the Biomechanical Aspects of Past Occupation and Osteoarthritis of the Hip in Men
Role: Principal Investigator
Total Costs: 10,000
Study Period: 7/90 - 7/91

Agency: Department of Health and Human Service: Public Health Service
Activity vs. Discourse to Improve Communication in AD
Role: Co-Investigator
Total Costs: 321,448
Principle Invsetigator: Ruth Tappen
Study Period: 9/30/92 - 8/31/95

Agency: Department of Veterans Affairs
Risk Factors associated with Deconditioning in Veterans with Dementia
Role: Co-principal investigator
Total Costs: 94,600
Principal Investigator: Ruth Tappen
Submitted: 8/01/93

22. Editorial responsibilities:

Orthopaedic Physical Therapy Clinics, Guest editor for Community Health Setting issue, W.B. Saunders Company

23. Professional and Honorary Organizations (member; officer; date):
- American Physical Therapy Association
 - APTA sections on Research and Geriatrics
 - American Public Health Association
 - APHA sections on Epidemiology and Gerontology
 - Florida Physical Therapy Association
 - Arthritis Health Professions Association
 - The Gerontological Society of America
24. Honors and Awards:
- Illinois State Scholarship - Honorary 1968
 - National Merit Scholarship - Semifinalist 1968
 - Indiana University Alumni Merit Scholarship 1968-1972
 - National Easter Seal Association Scholarship 1973-1974
 - Physical Therapy Foundation Doctoral Scholarship 1987-1989,
 - Physical Therapy Foundation Doctoral Scholarship 1989-1990
 - Physical Therapy Foundation Doctoral Scholarship 1990-1991
 - Arthritis Foundation Doctoral Dissertation Award 1990-1991
 - Elected to Delta Omega Honor Society by Lambda Chapter 1992
25. Post-Doctoral Fellowships: NONE
26. Other Professional Activities (e.g., papers presented; performances; conference proceedings; seminar or conference panel member; etc.):
- Roach KE, Delitto A, Montgomery E, Perlmutter J Development of a Self-Administered Home Assessment for Use with Parkinson's Patients. Poster

presented at the American Physical Therapy Association Conference in Las Vegas, Nevada, June 1984.

Roach KE, Van Dillen LR. Functional Status Assessment for Use in Acute Care. Poster presented at the American Physical Therapy Association Conference in New Orleans, Louisiana, June 1985.

Roach KE, Delitto A, Hall CM, Rose SJ. Reliability of an Indirect Measure of Hamstring Length in Patients with Low Back Pain. Poster presented at the American Physical Therapy Association Conference in Chicago, Illinois, June 1986.

Roach KE, Delitto A, Mueller MJ, Rose SJ. Reliability of a Method for Measuring Upper Abdominal Strength in Patients with Low Back Pain. Poster presented at the American Physical Therapy Association Conference in Chicago, Illinois, June 1986.

Roach KE. Home Health Physical Therapy: Demographics. Poster presented at the American Physical Therapy Association Conference in San Antonio, Texas, June 1987.

Roach K, Budiman-Mark E, Songsiridej N, Lertrantankul Y. Development of a Shoulder Pain and Disability Index. Poster presented at the American College of Rheumatology Annual Scientific Conference in Cincinnati, Ohio, June 1989.

Budiman-Mak E, Conrad KJ, Roach KE. Reliability of the Foot Function Index. Poster presented at the American College of Rheumatology Conference in Seattle, Washington, November 1990.

Roach KE, Miles TP. Normal Range of Motion of the Hip and Knee: The Effect of Age, Race and Sex. Poster presented at the American Physical Therapy Association Conference in Boston, Massachusetts, June 1991.

Roach KE, Persky V, Miles T, Budiman-Mak E. The Association between Past Recreational Activity and Osteoarthritis of the Hip in Men. Poster presented at the American Physical Therapy Association Conference in Denver, Colorado, June 1992

Roach KE, Persky V, Miles T, Budiman-Mak E. Lower Extremity Disability Associated with Osteoarthritis of the Hip in Men. Poster presented at the American Physical Therapy Association Conference in Denver, Colorado, June 1992

Roach KE, The Association between the Biomechanical Aspects of Past Occupation and Osteoarthritis of the Hip in Men, Platform presentation, VA Hines Hospital, Health Services Research and Development Field Program Seminar Series, Chicago, Illinois.

Roach KE, Budiman-Mak E, Persky V, Miles T, The Association between the Biomechanical Aspects of Past Occupation and Osteoarthritis of the Hip in Men, Platform presentation at the American College of Rheumatology Conference in Atlanta, Georgia, October 1992.

Roach KE, Brown M, Ricker E, Altenberger P, Tompkins J. Development of a Data-Based Screening Instrument for Patients with Low Back Pain. American Physical Therapy Association Conference in Cincinnati, Ohio, June 1993

TEACHING

27. Teaching Awards Received: None
28. Teaching Specialization (courses taught):
 - PTS695 Research Methods
 - PTS696 Applied Statistics I
 - PTS697 Applied Statistics II
 - PTS611 Research Methods
29. Thesis and Dissertation Advising (chairman or committee member; topic; student name; date):
 - Advanced Masters:
 - Chair, geriatrics, Arne Rabiner, current
 - Chair, balance in dancers, Lisa Dotson, current
 - Chair, posture and neck pain, Laura Haughie, current
 - Chair, health care utilization, Melanie Henderson, current
 - Chair, treatment of low back pain, Gloria Martinez, current
 - Member, use of CPM, Patrick Shields, current
 - Member, measurement of wound size, Ann McCormick, current

SERVICE

30. University Committee and Administrative Responsibilities:
 - Division of Physical Therapy
 - Research Committee
 - Admissions Committee
31. Community Activities:
 - Member Central Presbyterian Church, 1992 to present
 - University of Miami Faculty Fellow, Hecht Residential College
 - Amnesty International

UNIVERSITY OF MIAMI

Curriculum Vitae

1. Date: 08/17/93
SS#: 069-26-1164

PERSONAL

2. Name: NEIL I. SPIELHOLZ, Ph.D., P.T.
3. Home Phone: (305) 741-1969
4. Office Phone: (305) 284-4535
5. Home Address: 10155 NW 24th Place
Apartment 301
Sunrise, FL 33322
6. Current Academic Rank: Associate Professor
7. Primary Department: Orthopaedics and Rehabilitation
Division of Physical Therapy
8. Secondary or Joint Appointments: Adjunct Associate Professor
Rehabilitation Medicine
NYU Medical Center
9. Citizenship: USA
10. Visa Type: None

HIGHER EDUCATION

11. Institutional
 - a) Brooklyn College, Brooklyn, NY; B.S., 1954
 - b) Columbia University College of Physicians and Surgeons, New York, NY; Certificate in Physical Therapy, 1955
 - c) Columbia University, Teachers' College, New York, NY; M.A. (Rehabilitation), 1959
 - d) New York University, School of Medicine, Department of Physiology and Biophysics, New York, NY; Ph.D., 1972
12. Non-Institutional
 - a) "Electron Microscopy in the Biological Sciences", Marine Biological Laboratories, Woods Hole, MA (Morton Maser and

Blair Bowers, Co-instructors), May 11-23, 1980.

- b) "Quantitative Analysis of Electron Micrographs", Marine Biological Laboratories, Woods Hole MA (Lee Peachey, Brenda Eisenberg, John Hasselgrove, and Larry Palmer, Co-instructors), December 7-12, 1980.

13. Licensure

- a) Physical Therapy, New York, 1956, #001183
- b) Physical Therapy, Florida, 1990, #0006215

EXPERIENCE:

14. Academic Appointments (Full Time)

- a) Department of Rehabilitation Medicine, NYU School of Medicine, Teaching Assistant, 1963-1969
- b) Department of Rehabilitation Medicine, NYU School of Medicine, Instructor, 1969-1972
- c) Department of Rehabilitation Medicine, NYU School of Medicine, Assistant Professor, 1972-1976
- d) Department of Rehabilitation Medicine, NYU School of Medicine, Research Associate Professor, 1976-1991
- e) Department of Orthopaedics and Rehabilitation, Division of Physical Therapy, University of Miami School of Medicine, Associate Professor, 1991-Present

Adjunct Teaching Appointments (Part Time)

- a) New York University School of Education, Program in Physical Therapy, Undergraduate and Post-graduate Divisions, Instructor, 1969-1974
- b) Same as above, Adjunct Assistant Professor, 1974-1980
- c) Same as above, Adjunct Associate Professor, 1980-1991

15. Non-Academic (Employment)

- a) Veteran's Administration Hospital, Canandaigua NY, Staff Physical Therapist, 1955-1956
- b) Veteran's Administration Hospital, New York, NY, Assistant Chief Physical Therapist, 1956-1962
- c) Rusk Institute of Rehabilitation Medicine, New York

University Medical Center, New York, NY, Electrodiagnostic Service, 1962-1980

d) Rusk Institute of Rehabilitation Medicine, New York University Medical Center, New York, NY, Director, Tissue Culture Laboratory, 1980-1986

e) Rusk Institute of Rehabilitation Medicine, New York University Medical Center, New York, NY, Assistant Director, Stroke Rehabilitation Research Study, 1986-1991

Hospital Appointments:

a) St. Vincent's Hospital & Medical Center, New York, NY, Consultant in Electrodiagnosis, 1970-1976

b) Veteran's Administration Hospital, New York, NY, Consultant in Electrodiagnosis and Rehabilitation Medicine, 1970-1991

16. Military: None

PUBLICATIONS

17. Books and Monographs

Book

Liveson JA, Spielholz NI: Peripheral Neurology: Case Studies in Electrodiagnosis. FA Davis, Publ, Phila, PA, 1979.

Book Chapters

Levitt P, Ransohoff J, Spielholz NI: The differential diagnosis of tumors of the conus medullaris and cauda equina. In Handbook of Clinical Neurology, Vol. 19, Chapt. 4, edited by PJ Vinken and GW Bruyn, American Elsevier Publ CO, NY, 1975.

Spielholz NI, Benjamin MV, Engler GL, Ransohoff J: Somatosensory evoked potentials and clinical outcome in spinal cord injury. In Neural Trauma, edited by Popp AJ, et al, Raven Press, New York, NY, pp 217-222, 1979.

Spielholz NI: Electrical stimulation of denervated muscle. In Clinical Electrotherapy, edited by Nelson RM, Currier DP, Appleton & Lange, Publ, E. Norwalk, CT, pp 97-113, 1987.

Cole JL, Pavot AP, Goldberg G, Spielholz NI: Central nervous system electrophysiology. In Rehabilitation Medicine: Principles and Practice, edited by DeLisa JA, Lippincott Publ, Phila, PA, Chapter 12, pp 228-256, 1988.

Spielholz NI: Intraoperative use of somatosensory evoked potentials. In Physical Medicine and Rehabilitation, State of the Art Reviews: Clinical Electrophysiology, edited by Dumitru D; Hanley & Belfus, Publ, Phila, PA, 3:823-840, 1989.

Abbott R, Johann M, Spielholz N, Epstein F: Selective posterior rhizotomy and spasticity: Relationship between intraoperative abnormal muscle contractions and the tone examination. In Neurosurgery State of the Art Reviews: Management of Spasticity in Cerebral Palsy and Spinal Cord Injury, edited by Park TS, Phillips LH, Peacock WJ; Hanley & Belfus, Publ, Phila, PA, 4:471-475, 1989.

Spielholz NI: Scientific basis of exercise programs. In Therapeutic Exercise, 5th Edition, edited by Basmajian JV, Wolf SL; Williams and Wilkins, Publ, Baltimore, Chapter 2, pp 49-76, 1990.

Spielholz NI: Electrical stimulation of denervated muscle. In Clinical Electrotherapy, 2nd Edition, edited by Nelson RM, Currier DP; Appleton & Lange, Publ, Norwalk, CT, Chapter 5, pp 121-142, 1991.

Enwemeka CS, Spielholz NI: Modulation of tendon growth and regeneration by electrical fields and currents. In Dynamics of Human Biologic Tissues, edited by Nelson RM, Currier DP, FA Davis, publ, Philadelphia, PA, pp 231-254, 1992.

Nash MS, Spielholz NI: Influence of electrically stimulated cycling exercise on H-reflexes in human quadriplegia. In Electricity and Magnetism in Biology and Medicine, edited by Blank M, San Francisco Press, Inc., CA, pp 785-787, 1993.

18. Juried or Refereed Journal Articles and Exhibitions

Goodgold J, Kopell HP, Spielholz NI: The tarsal tunnel syndrome: Objective diagnostic criteria. *New England J Med*, 273:743-745, 1965.

Shahani B, Goodgold J, Spielholz NI: Sensory nerve action potentials in the radial nerve. *Arch Phys Med Rehabil*, 48:602-605, 1967.

Spielholz NI, Van der Kloot WG: Histochemical localization of cholinesterase in crustacean muscle. *Fed Proc*, 31(2):350, 1972.

Spielholz NI, Sell GH, Goodgold J, Rusk H, Greens SK: Electrophysiological studies in patients with spinal cord lesions. *Arch Phys Med Rehabil*, 53:558-56, 1972.

Spielholz NI, Van der Kloot WG: Localization and properties of the cholinesterase in crustacean muscle. J Cell Biol, 59:407-420, 1973.

Lieberman AN, Spielholz NI: Multiple peripheral nerve injuries simulating hemiplegia in drug abusers. Arch Phys Med Rehabil, 56:319-31, 1975.

Seelig M, Berger A, Spielholz NI: Latent tetany and anxiety, marginal magnesium deficiency, and normocalcemia. Dis Nerv System, 36:461-465, 1975.

Fox AJ, Krischeff II, Goodgold J, Spielholz NI, Tragerman L: The effect of angiography on the electrophysiological state of the spinal cord: A study in control and traumatized cats. Radiology, 118:343-350, 1976.

Engler GL, Spielholz NI, Bernhard WN, Danziger F, Merkin H, Wolff T: Somatosensory evoked potentials during Harrington instrumentation for scoliosis. J Bone Joint Surg, 60A:528-532, 1978.

Spielholz NI, Benjamin MV, Engler GL, Ransohoff J: Somatosensory evoked potentials during decompression and stabilization of the spine: Methods and findings. Spine, 4:500-505, 1979.

Kupersmith MJ, Lieberman AN, Spielholz NI, Berczeller P, Ransohoff J: Neuropathy with susceptibility to compression aggravated by herniated disc. Arch Neurol, 36:645-647, 1979.

Epstein F, Spielholz NI, McCarthy J, Battista A, Ransohoff J: Delayed cauda equina reconstruction in meningomyelocele. Childs Brain, 7:31-42, 1980.

Epstein F, Spielholz NI, Battista A, McCarthy J: Delayed cauda equina reconstruction in meningomyelocele: Preliminary report. Neurosurgery, 6:540-541, 1980.

Axelrod FB, Iyer K, Fish I, Pearson J, Sein ME, Spielholz NI: Progressive sensory loss in Familial Dysautonomia. Pediatrics, 67:517-522, 1981.

Ma DM, Kim SH, Spielholz NI, Goodgold J: Sensory conduction study of the distal radial nerve. Arch Phys Med Rehabil, 62:562-564, 1981.

Spielholz NI, Merkin H, Engler GL, Benjamin MV, Ransohoff J: Somatosensory evoked potentials: Experience with their use in spinal cord injury and as an intra-operative spinal cord monitor. SCI Digest, 4:19-35, 1982.

Spielholz NI: Skeletal muscle: A review of its development in-vivo and in-vitro. Phys Ther, 62:1757-1762, 1982.

Wang BC, Hillman DE, Spielholz NI, Turndorf H: Chronic neurological deficits and Nesacaine-CE: An effect of the anesthetic, 2-chloroprocaine, or the antioxidant, sodium bisulfite? Anesth Analg, 63:445-447, 1984.

Spielholz NI, Engler GL, Merkin H: Spinal cord monitoring during Harrington instrumentation. Clin Evoked Potentials, 4:12-16, 1986.

Spielholz NI, Van der Kloot W: Quantal size increases without detectable change in vesicle size at the frog neuromuscular junction. J Physiol, 382:157P, 1986.

Van der Kloot W, Spielholz NI: Effects of change in the tonicity of the extracellular solution on the size of vesicles in frog motor nerve terminals. J Neurocytol, 16:77-84, 1987.

Owoeye I, Spielholz NI, Fetto J, Nelson A: Low-intensity pulsed galvanic current and the healing of tenotomized Achilles tendons: Preliminary report using load-to-breaking measurements. Arch Phys Med Rehabil, 68:415-418, 1987.

Enwemeka CS, Spielholz NI, Nelson AJ: The effect of early functional activities on experimentally tenotomized Achilles tendons in rats. Am J Phys Med Rehabil, 67:264-269, 1988.

Pollack S, Axen K, Spielholz, NI, Haas F, Levin N, Ragnarsson KT: Aerobic training effects of electrically induced lower extremity exercises in spinal cord injured people. Arch Phys Med Rehabil, 70:214-219, 1989.

Khouri RK, Chiu DTW, Feinberg J, Tark KC, Harper A, Spielholz N: Effects of neurite-promoting factors on rat sciatic nerve regeneration. Microsurgery, 10:206-209, 1989.

Abbott R, Deletes V, Spielholz N, Wisoff JH, Epstein FJ: Selective posterior rhizotomy: Pitfalls in monitoring. Concepts Pediatr Neurosurg, 10:187-195, 1990.

Pachter B, Spielholz NI: Tenotomy-induced motor endplate alterations in rat soleus muscle. Anat Rec, 228:104-108, 1990.

Twist DJ, Squires NK, Spielholz NI, Silverglide R: Event-related potentials in disorders of prosodic and semantic linguistic processing. Neuropsychiat, Neuropsychol, Behavior Neurol, 4:281-304, 1991.

Rosenblum JA, Spielholz NI, Lee MHM, Ma DM: Reflex sympathetic dystrophy of the upper extremity following infection and removal of a silicone breast implant. J Neurol Orthop Med Surg, 13:131-135, 1992.

Podhorodecki AD, Spielholz NI: Electromyographic study of overuse syndromes in sign language interpreters. Arch Phys Med Rehabil, 74:261-262, 1993.

Spielholz NI, Rosenblum JA, Lee MHM, Geisel LC: Unilateral leg pain in a drug-abuser following ipsilateral rhabdomyolysis and peripheral nerve injury. Am J Pain Management, 3:57-59, 1993.

19. Other Works, Publications and Abstracts

Spielholz NI: Fibrillation (Letter to the Editor). Arch Phys Med Rehabil, 58:183-184, 1977.

Spielholz NI: The use of somatosensory evoked potentials in the treatment of spinal cord injury. In Proceedings of the Workshop on the Clinical Application of Spinal Cord Monitoring for Operative Treatment of Spinal Diseases. pp 114-119, 1978.

Wang BC, Spielholz NI, Hillman DE, Chen S, Turndorf H: Subarachnoid block by 2-chloroprocaine monitored with somatosensory evoked potentials (SEP) and reversed by cholinesterase (Abstract). Anesthesiology, 55(3A):A160, 1981.

Wang BC, Spielholz NI, Hillman DE, Turndorf H: Subarachnoid sodium bisulfite (the antioxidant in Nesacaine) causes chronic neurologic deficit (Abstract). Anesthesiology, 57(3A):A194, 1982.

Spielholz N: Ultrasound and conduction velocity (Letter to the Editor). Phys Ther, 64:552, 1984.

Spielholz NI, Ehrlich MW, Gart A: Abnormal spontaneous activity in rat skeletal muscle following neurectomy or myotomy (Abstract). Arch Phys Med Rehabil, 66:570. 1985.

Spielholz NI, Axen K, Pollack S, Haas F, Ragnarsson K: Effect of an FES bicycle exercise program on velocity of shortening of quadriceps muscles in spinal cord injured people (Abstract). Arch Phys Med Rehabil, 68:662, 1987.

Feinberg J, Khouri RK, Spielholz NI, Harper A, Chiu DTW: Nerve regeneration through an autologous venous nerve-conduit: The effects of conduit diameter and neurite promoting factors on motor action potentials (Abstract). Arch Phys Med Rehabil, 69:704, 1988.

Ma DM, Peppard TR, Spielholz NI, Keebler PJ: A method of standardizing stimulus intensity in dermatomal somatosensory evoked potentials (Abstract). Arch Phys Med Rehabil, 69:722, 1988.

Peppard TR, Lamparello PJ, Ma DM, Spielholz NI: Case report: Multiple neuropathies following proximal arteriovenous fistula placement in a uremic patient with diabetes mellitus (Abstract). Arch Phys Med Rehabil, 69:746, 1988.

Gross JM, Ma DM, Peppard TR, Spielholz NI: Diagnosis of dorsal cutaneous ulnar nerve compression using somatosensory evoked potentials (Abstract). Arch Phys Med Rehabil, 69:754, 1988.

April ME, Cisek VJ, Peppard TR, Spielholz NI: Weakness of the palmar interosseous in a body builder (Abstract). Arch Phys Med Rehabil, 69:796, 1988.

Spielholz, NI: Spine bending data (Letter to the Editor). Spine, 16:855, 1991.

Spielholz, NI: Craniosacral therapy debated (Letter to the Editor). Advance for Physical Therapists, Oct. 28, p 15, 1991.

Spielholz NI: Electrodiagnostic "update" disputed (Letter to the Editor). Advance for Physical Therapists, Jan. 20, pp 3-4, 1992.

Spielholz, NI: Reality vs theory (Letter to the Editor). Clinical Management, 12:11-13, 1992.

Spielholz NI: TENS effect on somatosensory evoked potentials and subjective pain (Letter to the Editor). J Clin Electrophysiol, 4:45, 1993.

Spielholz NI: Electrotherapeutic terminology (Letter to the Editor), J Clin Electrophysiol. 4:46-47, 1993.

20. Other Works Accepted for Publication

Spielholz NI: Intraoperative Spinal Cord Monitoring. In Manual of Nerve Conduction Velocity and Somatosensory Evoked Potentials, edited by DeLisa JA, Mackenzie K, Baran EM, Raven Press, New York, NY.

Spielholz NI: Intraoperative monitoring of the spinal cord and selected peripheral nerves. In Textbook of Electrodiagnosis, edited by Dumitru D.

PROFESSIONAL

21. Funded Research Performed (in last 5 years)

Stroke Rehabilitation Outcome, funded by New York State Department of Health; Joseph Goodgold, MD, Principal Investigator

22. Editorial Responsibilities

- a) Archives of Physical Medicine and Rehabilitation, Peer Reviewer, 1976-Present
- b) Clinical Evoked Potentials, Associate Editor, 1987-1991
- c) Journal of Bone and Joint Surgery, Peer Reviewer, 1976-Present
- d) Journal of Bone and Joint Surgery, Board of Associate Editors for Research, 1981-1985 (five year term)
- e) Journal of Bone and Joint Surgery, Board of Associate Editors for Research, 1989-1994 (re-appointed for a 2nd five year term)
- f) Journal of Rehabilitation Research and Development, Peer Reviewer, 1986-Present
- g) Muscle and Nerve, Peer Reviewer, 1987-Present
- h) Physical Therapy, Peer Reviewer, 1989-Present

23. PROFESSIONAL ORGANIZATIONS:

- a) American Association for the Advancement of Science
- b) American Association of Electromyography and Electrodiagnosis
- c) American Congress of Rehabilitation Medicine
- d) American Society for Clinical Evoked Potentials (elected to Honorary Membership in 1984)
- e) International Society for Electromyographic Kinesiology
- f) New York Academy of Science

24. Honors and Awards

- a) Founder's Day Award, New York University Graduate School of

Arts and Sciences, 1971.

b) 25 Year Faculty Service Award, NYU Medical Center, 1988

c) Third Annual Arthur J. Nelson Lectureship in
Electromyography, 1991

d) Commencement Address, University of Miami Division of
Physical Therapy, Graduation Ceremony, December 11, 1992.

25. Post-doctoral Fellowships: None

26. Other Professional Activities

Courses Directed or Organized

Director, First Course in Clinical Electrodiagnosis,
Barquisimeto, Venezuela, March 7-12, 1977.

Director, Second Course in Clinical Electrodiagnosis,
Barquisimeto, Venezuela, January 23-27, 1978.

Co-Director (with Jay A. Liveson, MD), Electrodiagnosis of
Peripheral Neurological Lesions, New York Infirmary-Beekman
Downtown Hospital, New York, NY, February 25-26, 1983.

Co-Director (with Jay A. Liveson, MD), Second Annual Course in
Electrodiagnosis of Peripheral Neurological Lesions, New York
Infirmary-Beekman Downtown Hospital, New York, NY, May 17-19,
1985.

Program Co-Chairman (with Jeffery L. Cole, MD), Eighth Annual
Meeting of the American Society for Clinical Evoked
Potentials, New York, NY, May 13-14, 1988.

Course Director, Evoked Potentials Today: Clinical Uses,
presented at the Annual Meeting of the American Academy of
Physical Medicine and Rehabilitation, San Antonio, TX,
November 8, 1989.

Program Chairman, Tenth Annual Meeting of the American Society
for Clinical Evoked Potentials, Chicago, IL, September 8-10,
1990.

Committees

Chairman, Committee on Continuing Medical Education, American
Society for Clinical Evoked Potentials, 1987-Present

Member, Program Committee, American Association of
Electromyography and Electrodiagnosis, 1986-1988

Member, Scientific Review and Evaluation Board for
Rehabilitation Research and Development, Spinal Cord Injury
Sub-Committee, Veteran's Administration, Washington, DC, 1984-
Present

LECTURES-PAPERS-PRESENTATIONS

- 1) Lecturer, "Course in Electromyography", sponsored by the Secretary of Health, General Hospital of Mexico, and the Mexican Society of Physical Medicine and Rehabilitation, Mexico City, Mexico, October 7-9, 1971.
- 2) Paper, "Electrophysiological Studies in Patients with Spinal Cord Lesions", presented at the Annual Meeting of the American Congress of Physical Medicine and Rehabilitation, San Juan, Puerto Rico, November 12, 1971.
- 3) Paper, "Histochemical Localization of the Cholinesterase in Crustacean Muscle", Federation of American Societies for Experimental Biology, Atlantic City, NJ, April 11, 1972.
- 4) Lecturer, "Second Annual Course in Electromyography", sponsored by the Secretary of Health, General Hospital of Mexico, and the Mexican Society for Physical Medicine and Rehabilitation, Mexico City, Mexico, November 30-December 2, 1972.
- 5) Lecture, "Physiological Basis for Electromyography", Harlem Hospital, New York, NY, Sept. 21, 1973.
- 6) Lecture, "Ultrastructure of Muscle", Harlem Hospital, New York, NY, Sept. 28, 1973.
- 7) Paper, "Fibrillation Potentials in the Lower Extremities of Monkeys with High Spinal Cord Lesions", presented at the Annual Meeting of the American Congress of Rehabilitation Medicine, Washington, DC, October 23, 1973.
- 8) Invited Participant, First Spinal Cord Injury Workshop, sponsored by the National Institute for Neurological Diseases and Blindness, Charleston, SC, March 8-10, 1974.
- 9) Lectures, "Physiology and Histology of Muscle and their Application to Rehabilitation Medicine", and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, May 1, 1974.
- 10) Lecture, "Motor Units and Their Diseases", Harlem Hospital, New York, NY, October 11, 1974.
- 11) Lecture, "The Gamma System and Control of Muscle", Burke Foundation, White Plains, NY, October 17, 1974.

12) Lecture, "Trophic Influences of Nerve on Muscle", Harlem Hospital, New York, NY, October 18, 1974.

13) Lectures, "Physiology and Histology of Muscle and Their Application to Rehabilitation Medicine" and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, April 30, 1975.

14) Lecture, "Neurophysiology Related to Electrodiagnosis", Post-Graduated Course in Electrodiagnosis, Mt Sinai School of Medicine, New York, NY, May 6-8, 1975.

15) Lecture, "Pathophysiological Bases for Electrodiagnostic Procedures", Convention of the Medical Society of New Jersey, Cherry Hill, NJ, June 2, 1975.

16) Lecture, "Clinical Electromyography", Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, December 3-5, 1975.

17) Lecture, "Electrodiagnosis in Facial Nerve Lesions", Medical Grand Rounds, Stamford Hospital, Stamford, Conn, Dec. 10, 1975.

18) Lectures, "Physiology and Histology of Muscle and Their Application to Rehabilitation Medicine" and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, April 28, 1976.

19) Lecture, "Clinical Electromyography", Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, Dec. 8-10, 1976.

20) Lectures, "Physiology and Histology of Muscle and Their Application to Rehabilitation Medicine" and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, April 27, 1977.

21) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, May 3, 1977.

22) Lecture, "Somatosensory Evoked Potentials in Spinal Cord Trauma and Spinal Cord Surgery", NYU Post-Graduate Course in Acute and Chronic Care of Spinal Cord Injury, New York, NY, May 14-15, 1977.

23) Paper, "Role of Spinal Cord Monitoring in the Treatment of Spinal Cord Injury", presented at the Workshop on the Clinical Application of Spinal Cord Monitoring for Operative Treatment of Spinal Diseases, Case Western Reserve School of Medicine,

Cleveland, OH, Sept. 15-17, 1977.

24) Paper, "Somatosensory Evoked Potentials and Clinical Outcome in Spinal Cord Injury", presented at the Third Chicago Symposium on Neural Trauma, University of Chicago, Chicago, IL, Sept. 23-25, 1977.

25) Lecture, "Somatosensory Evoked Potentials Before and During Surgery for Spinal Cord Injury", presented at Neurosurgery-New York City, 1977, at NYU Medical Center, Oct. 28-Nov. 1, 1977.

26) Lecture, "Clinical Electromyography", in Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, Dec. 8-9, 1977.

27) Lectures, "Physiology and Histology of Muscle and Their Application to Rehabilitation Medicine" and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, April 26, 1978.

28) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-Graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, May 10, 1978.

29) Lecture, "Clinical Electromyography", presented at Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, December 11-12, 1978.

30) Invited Participant, Spinal Cord Monitoring Workshop on Data Acquisition and Analysis, St. Louis, Missouri, January 8-11, 1979.

31) Lecture, "Spinal Cord Monitoring", presented to the New York Society of Physical Medicine and Rehabilitation, New York, NY, March 7, 1979.

32) Lectures, "Physiology and Histology of Muscle and Their Application to Rehabilitation Medicine" and "Basics of Clinical Electromyography", presented at Comprehensive Review Course in Rehabilitation Medicine, New York VA Hospital and NYU Medical Center, April 26, 1979.

33) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-Graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, May 9, 1979.

34) Lectures, "Cortical Recording Systems: Fundamental Aspects" and "Cortical Recording Systems: Practical Aspects and Problems Encountered", presented at Symposium on Spinal Cord Monitoring-Fundamentals and Clinical Applications, Cleveland, OH, May 21-22, 1979.

- 35) Lecture, "Clinical Electromyography", presented at Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, New York, NY, Dec. 6-8, 1979.
- 36) Lecture, "Intra-operative Spinal Cord Monitoring", University of Washington, Seattle, WA, February 22, 1980.
- 37) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-Graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, May 7, 1980.
- 38) Lecture, "Electrodiagnosis in the Management of Facial Nerve Lesions", presented at Otolaryngology Update/1980, NYU Medical Center, New York, NY, June 7, 1980.
- 39) Lecture, "Clinical Electromyography", presented at Post-Graduate Course in Electrodiagnosis of Neuromuscular Disorders, NYU Medical Center, New York, NY, Dec. 3-5, 1980.
- 40) Lecture, "Intra-operative Spinal Cord Monitoring", presented at Seminar on Evoked Cortical Potentials, sponsored by the New York Society of Physical Medicine and Rehabilitation, White Plains Hospital and Medical Center, White Plains, NY, March 6-7, 1981.
- 41) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-Graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, May 6, 1981.
- 42) Lectures, "Current Methods Employed for Spinal Cord Monitoring" and "Console Approach to Spinal Cord Monitoring", presented at Workshop on Spinal Cord Monitoring, Cleveland, OH, June 1-2, 1981.
- 43) Lecture, "Somatosensory Evoked Potentials as an Intra-Operative Spinal Cord Monitor", presented at Clinical Electrodiagnosis of Neuromuscular Diseases, NYU Post-Graduate Medical School, New York, NY, Dec. 9-11, 1981.
- 44) Lecture, "Spinal Cord Monitoring in the Operating Room", presented at Workshop on Evoked Potentials sponsored by the New York Society of Physical Medicine and Rehabilitation, White Plains Hospital and Medical Center, White Plains, NY, March 12-13, 1982.
- 45) Lecture, "Muscle Development, Regeneration, and Adaptability", presented at the Annual Meeting of the New York Chapter of the American Physical Therapy Association, New York, NY, May 2, 1982.
- 46) Lectures, "Current Systems in Use for Spinal Cord Monitoring" and "The Console Approach to Spinal Cord Monitoring", presented at Workshop on Spinal Cord Monitoring: Fundamentals and Clinical Applications, Indianapolis, IN, May 20, 1982.
- 47) Lecture, "The Somatosensory Evoked Potential as an Intraoperative Spinal Cord Monitor", presented at Electrodiagnostic

Update, Nassau County Medical Center, May 21, 1982.

48) Lecture, "Neurophysiology Related to Electrodiagnosis", presented at Post-Graduate Course in Electrodiagnosis, Mt. Sinai School of Medicine, New York, NY, June 2, 1982.

49) Lecture, "Intraoperative Variability of the Somatosensory Evoked Potential During Spinal Surgery", presented at Seminar on Critical Care and Surgical Applications of Evoked Potentials, Saddle River, NJ, November 6, 1982.

50) Lecture, "The Somatosensory Evoked Potential as an Intraoperative Spinal Cord Monitor", presented at Advanced Procedures in Clinical Electrodiagnosis of Neuromuscular Diseases, NYU Post-Graduate Medical School, New York, NY, December 8, 1982.

51) Lecture, "Somatosensory Evoked Potentials and Prognostication of Spinal Cord Injury Outcome", presented at Third Annual Workshop on Evoked Potentials, White Plains, NY, March 18-20, 1983.

52) Lecture, "Basic Principles in Motor and Sensory Nerve Conduction Studies", presented at Introductory Course in Electromyography and Electrodiagnosis, New York Medical College, White Plains, NY, Sept. 19-20, 1983.

53) Lecture, "Somatosensory Evoked Potentials and Clinical Outcome in Spinal Cord Injury", presented at Course In Evoked Potential Monitoring in the Operating Room and Critical Care Unit, City of Faith Medical and Research Center, Tulsa, OK, Sept. 21-24, 1983.

54) Lecture, "Pitfalls in the Performance of Motor and Sensory Conduction Studies", presented at Kessler Institute of Rehabilitation, West Orange, NY, Oct. 14, 1983.

55) Lecture, "Evoked Potentials in Prognostication of Outcome Following Spinal Cord Injury", presented at Fourth Annual Meeting and Workshop on Evoked Potentials of the American Society for Clinical Evoked Potentials, Walter Reed Army Medical Center, March 29-April 1, 1984.

56) Lecture, "Intra-operative Monitoring Using Evoked Potentials", presented at the 8th. Annual Symposium and Workshop on Motor Disorders, Nassau County Medical Center, April 26-27, 1984.

57) Lectures, "Spinal Cord and Sensory Radiations - re: Evoked Potentials", and "Basic Principles of Motor and Sensory Conduction Studies", presented at Course in Electromyography and Electrodiagnosis, New York Medical College, NY, NY, May 4-5, 1984.

58) Lectures, "Basic Principles of Motor and Sensory Conduction Studies", and "Fundamentals of Signal Averaging", presented at Course in Electromyography and Electrodiagnosis, New York Medical

College, NY, NY, March 12-14, 1985.

59) Lecture, "Cognitive Evoked Potentials in Aphasia and Apraxia", presented at Symposium on Evoked Potentials in CNS Rehabilitation, 47th. Annual Assembly of the American Academy of Physical Medicine and Rehabilitation, Kansas City, KA, September 30, 1985.

60) Lecture, "Fibrillation Potentials: An Horatio Alger Story in Reverse", presented at the New York Academy of Medicine, Section on Physical Medicine, NY, NY, Dec. 4, 1985.

61) Lectures, "Cognitive Evoked Potentials", and "Intraoperative Spinal Cord Monitoring Using the Somatosensory Evoked Potential", presented at the 6th Annual Meeting of the American Society for Clinical Evoked Potentials, San Juan, PR, March 2-5, 1986.

62) Lecture, "Abnormal and Normal Electromyography", presented at Grand Rounds of Rehabilitation Medicine Service, Columbia University College of Physicians and Surgeons, NY, NY, April 15, 1986.

63) Lectures, "Abnormal Muscle Physiology", and "Introduction to Somatosensory Evoked Potentials", presented at the Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 14-19, 1986.

64) Lectures, "Selected Conduction Studies in the Upper Extremities", "Neuropathic EMG", "Somatosensory Evoked Potentials in the Lower Extremities", and "Cognitive Evoked Potentials", presented at First Annual Advanced Course in Neuromuscular Electrodiagnosis, Nassau County Medical Center, May 21-23, 1986.

65) Lecture, "Physiology of Transmembrane Potentials", St. Vincents Hospital and Medical Center, NY, NY, December 17, 1986.

66) Lecture, "Types of Nerve Injuries and Their Electrodiagnostic Findings", presented at St. Vincents Hospital and Medical Center, NY, NY, Jan. 5, 1987.

67) Lecture, Lectures. "Normal Histology and Anatomy of Muscle", and "Abnormal Muscle Physiology", presented at Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 29, 1987.

68) Lecture, "Basics of Electromyography", presented at St. Vincents Hospital and Medical Center, NY, NY, December 11, 1987.

69) Lectures, "Pitfalls in Motor and Sensory Conduction Studies", and "Pathways for Somatosensory Evoked Potentials", presented at Course in EMG and EDx, New York Hospital, NY, NY, March 22-25, 1988.

70) Lectures, "Normal Histology and Anatomy of Muscle", and "Abnormal Muscle Physiology", presented at Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 23, 1988.

71) Lecture, "Anatomy and Pathophysiology of Damaged Nerves", presented at Third Annual International Conference on Neuropathic and Musculoskeletal Pain, Franklin General Hospital, Valley Stream, NY, October 18-21, 1988.

72) Lectures, "Instrumentation Required for Evoked Potentials", and "Histology, Physiology, and Pathophysiology of Muscle (including Post-polio Syndrome)", presented at Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 10-15, 1989.

73) Lectures, "Intraoperative Use of Somatosensory Evoked Potentials, Part I: Review of Methods and Findings", "Intraoperative Use of Somatosensory Evoked Potentials, Part II: The Controversy", and "Event-Related Potentials in Apraxia", presented at the Ninth Annual Meeting of the American Society for Clinical Evoked Potentials, San Francisco, CA, May 3-6, 1989.

74) Lecture, "Selective Posterior Rhizotomy for Relief of Spasticity", presented at Course in Intraoperative Monitoring, Twelfth Annual Continuing Education Courses of the American Association of Electromyography and Electrodiagnosis, Washington, DC, September 14, 1989.

75) Lecture, "Near-Field and Far-Field Potentials", presented at Evoked Potentials Today: Clinical Uses, a course given at the Annual Meeting of the American Academy of Physical Medicine and Rehabilitation, Nov. 5-10, 1989.

76) Lecture, "Pathophysiology and Anatomy of Damaged Nerves", presented at The Fourth Annual International Conference on Neuropathic and Musculoskeletal Pain, Pre-Anniversary Meeting: The Gate Control Theory of Pain, A 25 Year Perspective, New York, NY, November 29-Dec. 1, 1989.

77) Lectures, "Motor and Sensory Conduction Studies", and "Conduction Theory for Evoked Potentials", presented at Course in Electromyography and Electrodiagnosis, New York Medical College, March 19-21, 1990.

78) Lectures, "Somatosensory Evoked Potentials", "Normal and Abnormal Muscle Physiology (including post-polio syndrome)", and "Electrical Stimulation of Denervated Muscle", presented at Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 2-7, 1990.

79) Lectures, "Normal and Abnormal Muscle Physiology (including post-polio syndrome)", "Electrical Stimulation of Denervated Muscle," and "Sensory Evoked Potentials", presented at Comprehensive Review Course in Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 10-12, 1991.

80) Lectures, "Membrane Physiology as Related to Nerve and Muscle", "Essentials of Instrumentation", and "EMG Potentials and Their Basic Pathophysiology", presented at Review Course in Physical Medicine and Rehabilitation, Kessler Institute for Rehabilitation, West Orange, NJ, April 13, 1991.

81) Lecture, "Modern Technological Approach to the Evaluation of the Low Back Pain Patient", presented at the Fifth Annual International Conference on Neuropathic and Musculoskeletal Pain, NY, NY, April 17-19, 1991.

82) Lectures, "Intraoperative Monitoring Using Evoked Potentials", and "Cognitive Evoked Potentials", presented at the Eleventh Annual Conference of the American Society for Clinical Evoked Potentials, Vancouver, Canada, Sept. 22-24, 1991.

83) Lecture, "Cognitive Evoked Potentials", presented to Special Interest Group on Evoked Potentials at the Annual Meeting of the American Association of Electrodiagnostic Medicine, Vancouver, Canada, Sept. 25-27, 1991.

84) Lectures, "Membrane Physiology as Related to Muscle and Nerve", "Essentials of Instrumentation", "Motor and Sensory Conduction Techniques and Common Errors", and "EMG Potentials and Basic Pathophysiology", presented at Review Course in Physical Medicine and Rehabilitation, Kessler Institute for Rehabilitation, West Orange, NJ, March 9-20, 1992.

85) Lectures, "Common Sources of Error During Motor and Sensory Conduction Studies", and "Conduction Theory for Evoked Potentials", presented at Course in Electromyography and Electrodiagnosis, New York Medical College, NY, NY, March 23-26, 1992.

86) Lectures, "Normal and Abnormal Muscle Physiology (including post-polio syndrome)", and "Electrical Stimulation of Denervated Muscle", presented at 17th Annual Comprehensive Review of Physical Medicine and Rehabilitation, NYU Post-Graduate Medical School, NY, NY, April 4, 1992.

87) Lectures, "Basics of P300 Theory and Methodology", and "P300 in Aprosodia and Aphasia", presented at the 12th Annual Conference on Evoked Potentials of the American Society for Clinical Evoked Potentials, New York, NY, September 10-12, 1992.

TEACHING

27. Teaching Awards Received: None

28. Teaching Specialization (courses taught)

Current Courses:

Spring: PTS 542 Electrotherapy - main instructor
Spring: PTS 541 Neurophysiology - guest lecturer
Spring: PTS 573 Kinesiology - guest lecturer
Summer: PTS 530 Foundations in PT - guest lecturer

Past Teaching:

New York University Medical Center, 1962-1991

Physiology/Neurophysiology (electrophysiology)
Electrotherapy/Electrodiagnosis

29. Thesis and Dissertation Advising

Isaac O. Owoeye, "The Therapeutic Effect of Galvanic Current Following Rupture of the Achilles Tendon in Rats", PhD conferred 1982 (Physical Therapy).

Jules M. Rothstein, "A Validity Study of the Use of Power and Torque Measurements for the Prediction of Type II Muscle Fiber Area and Predominance", PhD conferred 1983 (Physical Therapy).

Chukuka S. Enwemeka, "The Effect of Early Functional Ambulatory Activities on Experimentally Tenotomized Achilles Tendons in Rats", PhD conferred 1984 (Physical Therapy).

David Edward Krebs, "Effect of Variations in Residuum Environment and Walking Rate on Residual Limb Muscle Activity of Selected Above-Knee Amputees", PhD conferred 1985 (Physical Therapy).

Donna J. Twist, "Event-Related Potentials as a Measure of Hemispheric Specialization in Aphasic and Aprosodic Disorders", PhD conferred 1986 (Psychology).

Cynthia M. Chiarello, "The Effect of Pulsed Electro-Galvanic Stimulation of Tension Development in Myotomized Rat Muscle", PhD conferred 1986 (Physical Therapy).

William M. Sussman, "Phase-Dependent Responses to Low Intensity Cutaneous Stimulation During Normal Human Walking", PhD conferred 1987 (Physical Therapy).

Muoyo Okome, "Effect of Localized Thermoelectric Cold

Application on the Breaking Load of Experimentally Tenotomized Achilles Tendons in Rats", PhD conferred 1989 (Physical Therapy).

Alma S. Merians, "The Effects of a Unilateral Penetrating Brain Injury on Tactile Responses, Balance Locomotion, Rotation, and Brain Morphology in Rats", PhD conferred 1989 (Physical Therapy).

Ellen C. Ross, "The Effect of Resistance Level on Muscle Coordination Patterns and Truncal Velocity, Acceleration, and Deceleration During Isoinertial Trunk Extension", PhD conferred 1991 (Physical Therapy).

SERVICE

30. University Committee and Administrative Responsibilities:

Member, Research Committee, Division of Physical Therapy
Member, PhD Task Force, Division of Physical Therapy

Associate Director-Research, Division of Physical Therapy,
1992-Present

31. Community Activities

Vice-president, Fox Hollow Homeowners Association, 1990-1991

Chairman, Nominating Committee, Fox Hollow Homeowners
Association, 1991



M E M O R A N D U M

September 4, 1987

TO: Dr. Pamela A. Ferguson
Dean of the Graduate School and
Associate Provost

FROM: Sherrill H. Hayes *SHH*
Director, Division of Physical Therapy
School of Medicine

RE: Proposals for new Entry Level Master's Degree in
Physical Therapy and Advanced Master's Degree in
Physical Therapy

Enclosed is the document prepared for the new program proposal for the degrees in physical therapy. If there are any further questions, please feel free to contact myself at 284-4535.

VIII. ELECTIVES

Advanced Orthopedics
Sports Medicine
Comprehensive Pain Management
Hand Rehabilitation
Pediatrics
Comprehensive Management of the Rehabilitation Patient
Gerontology

IX. CLINICAL EDUCATION

Clinical Education I: 4 week full time affiliation
Clinical Education II: 8 week full time affiliation
Clinical Education III: 8 week full time affiliation

Instructors Lecture/ Seminar Research Cl. ed. Hours per
 Lab Hours Hours Hours Hours Week

SUMMER I

(7 weeks: Didactic & Exams)

0202-402	Gross Anatomy	Dr. P. Meyer/Staff	5	5/12		17
0202-403	Neuroanatomy	Dr. A. Haroian/Dr. M. Kennedy	2	4/12		6
0204-420	Developmental Anatomy	Dr. Amenta/Anatomy Staff	<u>1</u>	<u>3½</u>		<u>3½</u>
			8			<u>26½</u>

FALL I

(15 weeks: Didactic

1 week: Clinical correlations

1 week: Final Exams)

0228-551	Neurophysiology	Dr. R. Alteveer/M. Watkins	3	3		3
0234-501	Life Span Development	Dr. N. Ellis	1	1½		1½
0234-503	Theory & Practice	M. Wilhite	4	3/3		6
0234-505	Physical Agents (and Massage)	S. Michlovitz (R. Granick)	3	3/2		7
0234-520	Clinical Kinesiology	G. Ship/M. Watkins	6	4/5		9
0234-525	Medical Foundations I	Dr. V. Zarro	3	4		4
0234-610	Seminar I	R. Granick	<u>1</u>	<u>2½</u>		<u>2½</u>
			21			33

SPRING I

Part A

(8 weeks: Didactic

1 week: Final Exams)

*0234-515	Clinical Electrophysiology	S. Michlovitz	2	3/3		6
0234-526	Medical Foundations II	M. Wilhite, Coordinator	1	3		3
0234-545	Neurological Approaches I	Dr. R. Palisano	2	4½/3		7½
0234-555	Orthopedic P.T. I	Ellen Simon	3	5/3		8
0234-580	Values & the Health Prof. I	Dr. W. Green	1	1½		3
0234-753	Research Processes I (Principles and Design)	G. Ship/M. Watkins	2		3	3
			<u>11</u>			<u>30½</u>

* to be revised for 1988

Lecture/
Lab Hours

Seminar
Hours

Research
Hours

Cl. Ed.
Hours

Hours per
Week

Credit

Instructors

Part B

(4 weeks, full time)

0234-770 Clinical Education I M. Schmidt, Coord. 2 40 40

Part C

(8 weeks: Didactic

1 week: Final exams)

0234-527 Medical Foundations III Invited Medical Staff 2 4
 0234-546 Neurological Approaches II Dr. R. Palisano 2 4½/3
 0234-556 Orthopedic P.T. II Ellen Simon 2 5/3
 0234-570 Rehabilitation Principles M. Wilhite 2 3/2
 0234-581 Values & the Health Prof. II Dr. W. Green 1 1½
 0234-754 Research Processes II G. Ship/M. Watkins, 2 3
 (Clinical Instrumentation) S. Michlovitz (includes Journal Club)

11

30½

FALL II

Part A

(8 weeks: Didactic

1 week: Final exams)

0234-547 Neurological Approaches III Dr. R. Palisano 2 3/2
 0234-560 Prosthetics-Orthotics I M. Schmidt, Coord. 2 4/2
 0234-575 Cardiopulmonary P.T. M. Wilhite, Coord. 3 4/4
 0234-720 Teaching-Learning Theory Dr. D. Gardiner 1 ½
 0234-755 Research Processes III G. Ship/M. Watkins 2 3

10

25

Part B

(8 weeks, full time)

0234-771 Clinical Education II M. Schmidt, Coord. 4 40 40

Instructors Lecture/ Seminar Research Cl. Ed. Hours per
 Hours Hours Hours Hours Week

SPRING II
Part A

(10 weeks: Didactic
 1 week: Final exams)

0234-561	Prosthetics-Orthotics II	M. Schmidt, Coord.	2	2/2	4	6
0234-611	Seminar II	R. Granick/C. McCarthy	3			4
0234-756	Research Processes IV	G. Ship/M. Watkins	2			

ELECTIVES (2 required)
 (Lecture/Lab combined)

0234-725	Sports Medicine	B. Hayne	2	3		3
0234-730	Advanced Orthopedics	Dave Clifton	2	3		3
0234-733	Hand Rehabilitation	S. Michlovitz	2	3		3
0234-739	Comprehensive Pain Mgt.	J. Mannheimer	2	3		3
0234-742	Pediatrics	Dr. S. Effgen	2	3		3
0234-745	Comprehensive Mgt. of the Rehabilitation Patient	M. Schmidt, Coord.	2	3		3
0234-748	Gerontology	R. Granick, Coord.	2	3		3
0234-749	Anatomy of Biomechanics of Human Joints	E. Simon	2			
			<u>11</u>			<u>19</u>

Part B

(8 weeks, full time)

0234-772	Clinical Education III	M. Schmidt	4		40	40
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An academic semester for the program consists of 7 weeks during Summer I; 16 weeks of didactic work and 2 weeks of final exams during the first year; and a 8 and 10 week teaching session followed by 2 weeks of final exams during the second year.

Each semester carries full academic credit. In the 7, 8 and 10 week semesters, classroom, lab, seminar and research hours have been extended to equal a full semester of course work.

In each semester there is integration of academic theory and skill with clinical practice. In Fall I, a week of clinical correlation has been developed. Students, in small groups, will spend one day in the clinic, under instructor supervision, evaluating patients. This is followed by a second day in the classroom where patient goals and treatment plans will be developed. The third day brings the student back into the clinic to carry out these treatment plans. The same patient problems will be incorporated into the final practical exams of Fall I. This will enable the student to critically think about patient progression and treatment modification.

During Spring I and Fall II, clinical education is developed as an integral part of the semester. The student will have the opportunity to experience two different clinical facilities to begin the transition from student to practitioner. Clinical Education III, occurring at the end of the curriculum, allows the student to pursue specialty areas in clinical practice.

Total credits for graduation equal 82; total number of curriculum hours equal 2562½ as follows:

	<u>Credits</u>	<u>Hours</u>	<u>% of Curriculum</u>
Basic Science	11	239½	9%
Professional Physical Therapy	33	990	39%
Medical Foundations	6	135	5½%
Behavioral, Social, Ethical, Professional	10	224	9%
Research	8	114	4%
Electives	4	60	2½%
Clinical Education	10	800	31%
	<u>82</u>	<u>2562½</u>	<u>100%</u>

MASTER'S DEGREE
PROGRAM IN PHYSICAL THERAPY

WASHINGTON UNIVERSITY

ST. LOUIS, MISSOURI

PT 507	Medical Pathophysiology (3 units)
PT 508	Exercise Physiology (3 units)
PT 509	Statistics and Research Design (2 units)
PT 510	Pathokinesiology (3 units)
PT 511	Clinical Evaluation (2 units)
PT 513	Topics and Issues in Aging (2 units)
PT 516	Seminar in the Management of the Patient with Musculo-skeletal Disorders (3 units)
PT 518	Final Project (3 to 6 units)
PT 519	Kinesiomechanics (2 units)
PT 520	Neurological Pathophysiology (2 units)
PT 526	Administration and Management in Physical Therapy (3 units)
PT 527	Fiscal Management
PT 528	Quality Assurance
PT 529	Data Management
PT 530	Prevention and Evaluation of Athletic Injuries (3 units)
PT 531	Administration of Athletic Training Programs (2 units)
PT 532	Treatment of Athletic Injuries (3 units)
PT 533	Practicum in Athletic Training (2 units)

The 35 unit program may be broad-based for the individual who has no interest in pursuing a specific clinical track. Or, for the student desiring a course of study with a specific outcome, we offer the following special interest tracks: P.T. Administration, athletic training and orthopedics.

REQUIRED COURSES

For the generalist student, 25 units (PT 501-PT 511) are required subjects, the remainder of the coursework is elective. A final project of three units complete the degree (PT 518).

For students wishing to obtain the MHS/PT degree and certification as an athletic trainer, the following courses are required: PT 501 or PT 516, PT 502-504, 506, 508-511. The 22 units of required courses are taken in conjunction with the ten units of classes specific to athletic training (PT 530-533). A final project (PT 518, 3 units) pertaining to sports injury prevention or care completes the degree.

The specialty in P.T. Administration entails taking four courses (PT 526-529) german to administration, completing 20 units of core curriculum coursework (PT 501-504, 508-511), and finishing with a three unit final project on some aspect of PT Administration.

REQUIRED COURSES (con't)

Students who desire specialization in orthopedics must take the full complement of appropriate courses. PT 501-511, 516, 519, one elective and/or final project (depending on the number of units taken for final project) completes the degree.

ADMISSION

The MHS/PT program is open to all currently registered physical therapists who are graduates of an American Physical Therapy Association (APTA) approved school of physical therapy. The MHS/PT admissions committee requires the submission of completed application materials and academic transcripts for all education beyond the secondary school level. Continuation in the program is contingent upon satisfactory performance in courses and a cumulative average of 3.0 (on a 4 point scale) during a calendar year. Up to 12 credit hours may be earned prior to admission into the program, and applied toward graduation.

To receive an application, or for information regarding application and registration procedures, write the Office of Admissions, University College, Washington University, Campus Box 1085, St. Louis, MO 63130; or call (314) 889-6777.

For specific information about coursework, employment in the area, tuition and fees, contact Marybeth Brown, Ph.D., at the Program in Physical Therapy, Campus Box 8083, 660 S. Euclid Ave., St. Louis, MO 63110; or call (314) 362-3670.

NEW PROGRAM PROPOSAL:

UNIVERSITY OF MIAMI, SCHOOL OF MEDICINE

DIVISION OF PHYSICAL THERAPY

1. MASTER OF SCIENCE IN PHYSICAL THERAPY (M.S.P.T.)
2. MASTER OF SCIENCE (M.S.)

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STATEMENT OF PHILOSOPHY - PRINCIPLES, VALUES AND RATIONALE

UPON WHICH THE PROGRAM IN PHYSICAL THERAPY IS BASED:

The Program in Physical Therapy, School of Medicine, is committed to providing quality educational experiences which enable its graduates to function effectively in carrying out the expanding role responsibilities of physical therapists as autonomous health care providers practicing in preventative, evaluative, maintenance, acute care and rehabilitation settings, and in educational and research environments.

The individual and collective efforts of all members of the Physical Therapy faculty are directed toward the attainment of specific goals and objectives as expressed in the following philosophic statement:

"Physical therapy is a health profession whose primary purpose is the promotion of optimal human health and function through the application of scientific principles to prevent, identify, assess, correct, or alleviate acute or prolonged movement dysfunction. Physical therapy encompasses areas of specialized competence and includes the development of new principles and (modes of) application to more effectively meet existing and emerging health needs. Other professional activities that serve the purpose of physical therapy are research, education, consultation, and administration." (1)

The principles which form the continually evolving scientific foundations for physical therapy are drawn primarily from the disciplines of kinesiology, pathokinesiology, and therapeutic exercise.

The mission of the Program in Physical Therapy is to serve the profession, the university, and the community through the accomplishments and activities of the faculty and students. To this end, each faculty member must assume responsibility in all four components of the program, specifically education, research, community service, and clinical practice.

The Program recognizes the importance of in-depth basic and applied science knowledge and the humanities, and carefully sequenced and relevant physical therapy content which allows the student to develop skills in both classroom and clinical settings. It also recognizes that it is essential to stress problem-solving while developing strong fundamental concepts in a collegial environment, so that students will develop the professional attitudes and insights required for sustained and continued growth throughout their careers.

(1) RC 5-83 Philosophic Statement on Physical Therapy - American Physical Therapy Association, 1983.

PROGRAM PROPOSAL - ENTRY LEVEL MASTER'S DEGREE IN PHYSICAL THERAPY
(formerly Entry Level Master's Degree in Physical Therapy, M.S. Ed.,
to be changed to M.S.P.T. degree)

General History:

The House of Delegates of the American Physical Therapy Association (APTA) in 1979 passed RC 14-79. The passage of this ruling altered, and has continued to alter, the education of physical therapists in this country. December, 1990, was set as the target date for all physical therapy education to be at the post-baccalaureate level. Further amendments reaffirmed RC-14-79. For accreditation purposes, all educational programs in physical therapy would present transition plans toward post-baccalaureate education by January, 1985. (Accreditation, however, was separated from the transition to post-baccalaureate education.) The APTA is the sole accrediting body of physical therapy educational programs, recognized by the Council on Postsecondary Accreditation.

The challenges of practice in our current health care system require an educational process that is both longer in duration and more thoroughly supported by pre-professional educational processes. The transition to post-baccalaureate education for entry level physical therapy training offers the means for assuring that students have quality professional education. The post-baccalaureate training mode provides the mechanism by which students can be better prepared to be responsive to the needs of the modern health care system and to the evolving professional status of the physical therapist.

A major requirement in effecting this transition is to ensure that the environment in which students are educated meets the

expectations of traditional academia. The faculty of the Program in Physical Therapy recognizes the academic requirements necessary to ensure continued growth and evolution of the profession. These requirements include: 1) expansion of the entry level educational program, 2) institution of post-entry level graduate studies for practitioners and researchers, 3) operation of an investigative laboratory in motion analysis, and 4) integration of the clinical service with the academic program.

History of the Program at the University of Miami:

Early in the Spring of 1985, the School of Education and Allied Professions (SEAP) developed an Entry-Level Master's Program, to be initiated in the Summer of 1986. This Program was of a 3 + 3 format, with 3 years in the College of Arts and Sciences, in the Health Sciences Program, and 3 years in the Program in Physical Therapy. The degree to be awarded was to be an M.S.Ed. in Physical Therapy. The transition to the Master's Level was fairly smooth, in that all of SEAP was making the transition to the graduate level, and phasing out the Baccalaureate degree programs. The Department of Physical Therapy, Exercise Science and Sports Studies (PES) was under the impression that they had previous approval of a Graduate Program in Physical Therapy, along with a proposed Baccalaureate Program, in 1978 (Faculty Senate Meeting, Jan 23, 1978, # 78001). At that time, (1978) SEAP decided to adopt the Baccalaureate format of education instead of a graduate program in Physical Therapy. When the APTA rulings became evident, the transition to the Master's Entry level was proposed by the Director of the Program, Dr. Ira Fiebert. This plan was adopted, as it was consistent with SEAP's goals of phasing out baccalaureate programs of study.

During the academic years of 1984-85, and 1985-86, the Program in Physical Therapy had severe faculty shortages. In 1984-85, the Program lost 3 out of 4 faculty, including 3 Ph.D.-P.T.'s, and was understaffed that year and the following year. In 1985, the only remaining faculty person was named Director in June, and resigned in October, remaining on as faculty. An Acting Director was named, and a search was instituted for a Director and 2 faculty positions.

After a lengthy search, with 7 candidates brought in, no positions were filled. The Program was about to initiate its Entry Level Master's Program without adequate faculty or a permanent Program Director. One of the major difficulties in recruiting was the salary offered for faculty. Other issues were the faculty-student ratio (1:25), administrative support and commitment (no budgetary input or control), resources (inadequate teaching space and equipment, and no research capability), and lack of a clinical practice for faculty (preliminary plan was approved but never implemented). The Administration (SEAP) determined not to increase the faculty lines or salaries and to close the Program in Physical Therapy on April 29, 1986. Classes for the new Entry Level Master's degree were to begin on May 15, 1986. Incoming students were notified by telephone or certified letter that the Program was closed at this time, (28 students were to begin classes at that time.) During the next week, the College of Arts and Sciences and the School of Medicine became involved in the salvaging of the Program. (Arts and Sciences had approximately 45 students matriculating in the first 3 years in the Physical Therapy track, with no program; the Medical School, having been involved peripherally through several courses, was willing to accept the Program.) On May 7, 1986, after meetings with incoming Provost Glaser, the School of Medicine, and the College of Arts and Sciences, the Program in Physical Therapy was moved administratively to the Medical School, transitionally housed in the Office of Research and Graduate Studies for the academic year 1986-87, to be transferred to the Department of Orthopedics and Rehabilitation in 1987-88. Please refer to support statements from Dr. Bernard J.

Fogel, Dean, School of Medicine, and Dr. Mark D. Brown, Chairman, Department of Orthopedics and Rehabilitation. (Appendix A and B).

Students were again notified, this time informing them that the Program was in operation. After the original notification, students were justifiably uncertain about the Program, or had accepted other institutions. Out of 28 original students accepted, 21 began classes in May, 1986, with a one-week delay from the original Summer Session beginning.

It must be stated that the Program in Physical Therapy did not and does not share faculty with the School of Education - all physical therapy courses were taught by the physical therapy faculty and adjuncts, with the exception of PES 471 - Therapeutic Exercise I, (now PTS 571) taught by Dr. Arlette Perry, PES Department. In the Baccalaureate and the Master's Programs, Physical Therapy existed as an "appendage" of PES, with no shared faculty, a separate facility and secretary, and separate classrooms and office space. The move, therefore, to the Medical School, did not have impact on the School of Education's resources, except for the number of students registered.

THE DEGREE: In May of 1986, with the swift administrative move, the Medical School, with the School Council Representative, determined that the degree offered would be a Master of Science Degree in Physical Therapy (M.S.P.T.), and not, for obvious reasons, a Master's of Science in Education (M.S.Ed). The Program of Study has remained unchanged from that of the original proposed curriculum housed in SEAP. Please refer to comparison sheet immediately following comparing the curriculum in the School of Education, and that of the curriculum within the School of Medicine.

THE MEDICAL SCHOOL: The move to the School of Medicine has many advantages for the Program in Physical Therapy, as far as visibility, clinical practice and research, and collaborative studies. Please refer to the document: "Strengths of the Program", originally prepared for the Application for Interim Accreditation for the APTA. (Appendix C), and the Medical School Council Minutes and descriptive statement prepared by the Interim Director (Appendix D).

ACCREDITATION: An Application for Interim Accreditation document was prepared by the Interim Director, S. Hayes, in June of 1986. "Interim Accreditation" was granted in December of 1986, by the Commission on Accreditation in Education (CAE) of the American Physical Therapy Association, making the Program at the University of Miami one of only 18 Entry Level Master's Programs in the country. The next scheduled On-Site Visit by the CAE is May 16-18, 1988. See Appendix E).

Physical Resources:

1. Library holdings are adequate, between the Calder, the Richter, and the holdings in the Program Library at the Red Road facility. The Program in Physical Therapy was found to be compliant with this area during the last On-Site Accreditation Visit by the CAE in 1982.
2. Laboratory equipment for teaching purposes is adequate at present, with the space occupied in the 5801 Red Road building, and the newly-acquired space in the Civic Center at Jackson Memorial Hospital. A Motion Analysis Laboratory is being developed, to be located at the Coral Gables campus. Resources for this Laboratory, as well as additional educational equipment and needs will be funded initially by the School of Medicine, and re-paid by the Division of Physical Therapy in the form of an amortized loan. This has been negotiated with the Dean of the School of Medicine, the Director of the Division of Physical Therapy, the Chair of the Department of Orthopedics and Rehabilitation, and the Executive Vice President and Provost. The space for this Motion Analysis Laboratory will be ready and functioning with the second Phase of renovation at the Red Road facility.
3. Existing space at Red Road was not adequate for estimated future needs and a growing student population. Space at the Medical School will adequately fill the Program's needs, and is ready for the Fall of 1987. This space consists of approximately 4100 sq. ft., adjacent to the Rosenstiel Medical Sciences Building, and provides a large lecture-laboratory, office space for faculty and staff, student locker rooms and lounge, and restrooms.
4. Other requirements are a site for clinical practice for the

Program faculty, students, etc. The Department of Orthopedics and Rehabilitation has recently (May, 1987) established a Sportsmedicine Center at the Doctor's Hospital, for both the Department's development of a teaching and research facility in Sportsmedicine, with a cooperative arrangement for the faculty in the Program in Physical Therapy. Additionally, the Division of Physical Therapy will provide clinical services in the Comprehensive Out-patient Rehabilitation Facility (CORF) which presently exists in the NCCH building at the Medical School complex. Between the CORF and the Doctor's Hospital services, the clinical practice component of the Physical Therapy Program will be optimally utilized.

5. Renovations to the Red Road building, and the new space adjacent to the Medical School (RMSB) will be completed during the summers of 1987 and 1988. The Medical School facility has been completed, and Phase I of the Red Road building has been completed. Phase II Final renovations at Red Road will occur in the summer of 1988. Costs for these renovations will be assumed in the negotiated loan from the School of Medicine, to be paid back in the form of an amortized loan by the Program in Physical Therapy.

6. The two facilities, (the Medical School and the partially renovated and expanded space at the Red Road building) now provide adequate space for present and future needs of the Program.

7. Clinical facilities also provide educational experiences for the students in the Program in Physical Therapy, both for an integrated experience (usually Dade and Broward counties - one day/week) and full-time experiences (over 100 facilities currently with clinical contracts for 5 or 8 week full-time internship).

The Curriculum:

Our present curricular structure is sound, and has been approved by the Commission on Accreditation in Education of the APTA. Also, it has been offered as a model 3 + 3 format for other Programs to emulate.

Teaching strengths at the present time are in the areas of orthopedic and sports physical therapy, neuroanatomy/neurophysiology/neuro-pathology. Weaknesses in resources exist in the area of cardio-pulmonary physical therapy, kinesiology, and neurorehabilitation. These weaknesses have been addressed with the incoming faculty and adjuncts for the year 1987-88. The faculty will be expanded to a full complement of 7 FTE's, a necessary number for education, clinical and research needs, as well as an adequate faculty-student ratio at the graduate level (approximately 1:8).

Changes in the curriculum will be in the form of converting all PES courses to the designated PTS (Physical Therapy Science), in the School of Medicine. Some change of course structure and content will also change the numbering of previously under-rated 200's courses to more appropriate 500's level courses. (See attached listing of courses and comparison chart, next section: "The Curriculum") The estimated teaching load for each full-time faculty member will be 10-12 contact hours/week. "Contact hours" is utilized in Physical Therapy, since many of our courses are both lecture and laboratory sessions combined, and Credit hours are not always consistent. Faculty will be involved in all three areas in the medical education triad model of education, research and clinical practice, with percentages to be determined based upon on-going research grant

activity, clinical expertise, etc.

In light of the recent administrative move to the Medical School, there are numerous projected changes in the working relationships between the Program in Physical Therapy, the Medical School faculty, and the faculty of the College of Arts and Sciences.

First, the Medical School has assured commitment to the Program in Physical Therapy as an autonomous entity housed within the School of Medicine. Their faculty have been involved with teaching our students in Gross Anatomy, Neuroanatomy, Neurophysiology (Dept. of Anatomy and Cell Biology), Pathology (Dept. of Pathology), and in the Communications in Physical Therapy course (Depts. of Orthopedics and Rehabilitation and Psychology). Our students also attend Grand Rounds in the Department of Orthopedics and Rehabilitation on a weekly basis. Additionally, Medical school faculty have been readily available to assist the physical therapy faculty with various research projects and doctoral studies. The recent administrative move can only be projected to further expand this collaboration and cooperation, not only with respect to the education of our students, but in the area of faculty research and development, as well.

Secondly, the faculty of the College of Arts and Sciences, specifically, the Department of Biology, have been superbly supportive of the Program in Physical Therapy. Students who will matriculate through the 3 + 3 program will be housed within the Health Sciences Program in the Department of Biology for their first three years, and will receive a Bachelor's in Health Science (B.H.S.) degree following completion of the fourth year (the first year of the physical therapy curriculum). This increased full-time enrollment of

students in the College of Arts and Sciences, with the intent to continue on in the physical therapy curriculum, is to their obvious benefit.

Finally, the support of both the Medical School and the College of Arts and Sciences, as well as the Office of the Provost, for the Program in Physical Therapy, have been invaluable in the formation and creation of a strong, viable and exemplary program in physical therapy.

For a comparison between the Entry Level Master's Program at the University of Miami and other established Entry Level Master's Programs, refer to Appendix F.

Profile of Students:

Present Total number of students: 58

ELM II (second year) students = 17 (Class of December, 1988)

ELM I (first year) students = 41 (Class of December, 1989)

Anticipated students = 45 (Class of December, 1990)

Our students come from all over the country with baccalaureate degrees in biology, sportsmedicine, athletic training, chemistry, economics and psychology. Additionally, students come through the Health Science Program, Department of Biology, College of Arts and Sciences. These students in the "3 + 3 program of study" currently account for 25% of the total number of students in each class admitted. The number of students in the University of Miami phasing through the pre-physical therapy sequence is increasing each year, with 25 projected for application in the 1987-88 academic year. These students, when accepted in their 4th (Senior) year, are accepted initially for that year only. Upon satisfactory completion of their first year in the physical therapy program, degree conferral by the College of Arts and Sciences, and successful completion of the Graduate Record Examination, along with formal application to the Graduate level, they are then accepted into the graduate program. Thus far, in the early stages of our program, we have not had an instance where students did not continue on in the graduate segment (for these students) of the professional preparation. Should the student be unable to continue in the program, for any reason, the baccalaureate degree would still be conferred by the College of Arts and Sciences.

The demand for entry-level master's degree programs in physical therapy is increasing each year. Physical therapy as a profession is continuing to expand rapidly, with projected shortages for the next twenty years. The number of post-baccalaureate degree programs is limited, and competition is increasing for available slots in all entry-level programs.

For the University of Miami, the past 2 years has shown a dramatic increase in the number of applicants. During our first year, (when the entry-level master's degree here was not officially listed in career listings), there were 40 applicants and 28 were accepted. The second year of the Program (when official listing occurred and accreditation status was granted), there were 95 applicants and 55 were accepted. The Program's "capture rate", or the number of students accepted and the number who actually enrolled, is extremely high - approximately 80%. Several outstanding students were lost to other entry-level master's programs or baccalaureate programs due to financial restrictions.

CRITERIA FOR ADMISSION:

GRE Minimum = 1000 for Verbal and Quantitative scores

GPA Minimum - 3.0

3 Letters of recommendation

100 hours of volunteer/ work in physical therapy setting

Personal essay of why applicant wants to be a physical therapist

Personal Interview with Admissions Committee representative

* Students in the 3 + 3 Program in Arts and Sciences must meet the academic requirements of the Health Science Program, maintain a 3.0 GPA, and have the same criteria as above, with the GRE to be taken during the first year (their 4th year) in the Program, before continuing at full graduate status, with formal application to the graduate school in the School of Medicine.

CRITERIA FOR RETENTION:

Students must maintain a 3.0 GPA in order to remain in the Program in Physical Therapy.

FINANCIAL AID:

Students are full-time graduate status. They are eligible for financial aid through the Office of Financial Aid at the University of Miami. Previously, no Graduate Assistantships were available for the 1986-87 academic year. However, in the 1987-88 academic year, budget monies have been targeted for three (3) Graduate Assistantships for students in the second year of the Program. These Assistantships offer 9 Graduate credits/semester of tuition remission

during the second year of study. Duties involved are Teaching Assistant and Laboratory Assistant for courses in the first year of studies, research assistant for individual faculty with on-going research projects. Duties will vary each year depending on research in process, and anticipated faculty needs. In the academic year 1988-89, the student body will be larger, as will be the faculty; additional budget monies for 5-6 Graduate Assistantships will be allocated.

MASTER OF SCIENCE - PHYSICAL THERAPY, M.S. - ADVANCED MASTER'S
DEGREE FOR PRACTICING PHYSICAL THERAPISTS:

The Advanced Master's degree was originally conceived while the Program in Physical Therapy resided within the SEAP. Existing solely on paper, the concept was a 32-credit graduate degree for practicing physical therapists who hold a Baccalaureate degree. It is the intent of the Program in Physical Therapy to initiate such a program for the practicing physical therapists in this local area, as well as to attract persons nationally. Along with the move to the Entry-level Master's degree in basic professional preparation, practicing clinicians are desirous of continuing their education. In the South Florida region, there exists no such program to date. In the entire state of Florida, there is only one Advanced Master's Degree (in Allied Health) at the University of Florida, initiated in 1986, and a full-time program only. For most practicing physical therapists, full-time study is not a practical or feasible means of graduate study. Most successful Advanced graduate programs consist of late afternoon or evening classes, allowing students to continue working while pursuing graduate work.

The faculty of the Program in Physical Therapy, University of Miami, feel a strong need to develop and initiate an Advanced Program of study for clinical practitioners in the South Florida region. The largest percentage of physical therapists in the state of Florida live and work in Palm Beach, Broward and Dade counties. Florida International University has proposed such a Program, but it has not been approved at this date. The University of Miami, therefore, is in a key position to capitalize on this untapped market, in offering

a graduate program of study, with classes in the late afternoon and evenings. These times will also not compromise the scheduling of classes for the Entry Level Master's Program, where classes are scheduled during the day, and would provide an additional cost-effective use of existing educational space.

Additional graduate students who are experienced clinicians will also enhance the research effort within the Program, providing expanded clinical studies, paper presentations and publications from the School of Medicine and the University of Miami.

For a comparison between the proposed Advanced Master's Program in Physical Therapy at the University of Miami and other established Advanced Master's Programs, refer to Appendix F.

The Program:

This Program will take the format of advanced specialized study in Orthopedic and Sports Physical Therapy, Research competencies and Clinical Administration. There are five Core courses in the curriculum at present, (Orthopedics IV, Orthopedics V, Seminar in Orthopedics, Seminar in Sportsmedicine, and Seminar in Electrotherapy), which will be further developed over the academic year 1987-88. It is evident that the Program's being housed within the Department of Orthopedics and Rehabilitation, with resources for Orthopedics and Sportsmedicine, is an ideal position for further development of these specialty areas. Projected plans to offer this Program will be in the Summer or Fall of 1988. The M.S. degree, to be awarded by the School of Medicine, will consist of 36 Graduate credits, including a thesis. Please refer to the "List of Courses" for the Advanced Master's courses in Physical Therapy.

Admissions:

Applicants for the M.S. degree will apply to the Program in Physical Therapy, School of Medicine. Requirements for admission will be:

GRE - minimum of 1000 on Verbal and Quantitative scores

GPA - minimum of 3.0 Undergraduate

Recommendations - 3

Personal Interview

Clinical experience - 2 years as a practicing physical therapist

THE CURRICULUM:

CURRICULUM GOALS - M.S.P.T.:

Upon completion of the course of study, the graduate will be able to:

1. Acquire all pertinent background information relating to the patient and his/her physical state.
2. Plan a physical therapy evaluation appropriate to the patient.
3. Carry out valid and reliable physical therapy evaluations.
4. Establish a physical therapy diagnosis.
5. State the patient's functional level of performance.
6. Determine with the patient and/or family, goals relating to physical therapy.
7. Plan a comprehensive physical therapy intervention.
8. Implement a comprehensive physical therapy intervention.
9. Modify the physical therapy program on the basis of changing patient needs.
10. Record all pertinent information relating to the above objectives.
11. Interact appropriately with patients, families, co-workers, and other team members.
12. Maintain a high standard of professional accountability (safety, efficiency, effectiveness, ethical and legal).
13. Design and implement educational experiences.
14. Research the efficacy of physical therapy practice.
15. Manage a physical therapy service.
16. Plan and implement health promotion programs.
17. Participate as an effective team member in the delivery of services to patients.
18. Assume the physical therapist's role with patients in all stages of the life cycle.
19. Plan and implement a systematic evaluation of all role responsibilities relating to physical therapy.

PROGRAM IN PHYSICAL THERAPY (M.S.P.T.)

SEAP

SCHOOL OF MEDICINE

PES 230 Intro to PT	PTS 530 Found of PT
PES 231 Gross Anat I	PTS 531 Gross Anat I
PES 232 Gross Anat II	PTS 532 Gross Anat II
PES 233 Communica in PT	PTS 533 Communica in PT
PES 470 PT Clin Skills	PTS 570 PT Clin Skills
PES 471 Ther Ex I	PTS 571 Ther Ex I
PES 472 Analys Norm Motion	PTS 572 Analys Norm Motion
PES 473 Analys Abnor Motion	PTS 573 Analys Abnor Motion
PES 474 Orthopedics I	PTS 574 Orthopedics I
PES 478 Clin Intern I	PTS 578 Clin Intern I
PES 540 Neuroanatomy	PTS 540 Neuroanatomy
PES 541 Neurophysiology	PTS 541 Neurophysiology

-- B.H.S. Degree awarded to 3 + 3 students upon completion --

PES 542 Electrotherapy	PTS 542 Electrotherapy
PES 610 Clin Intern II	PTS 610 Clin Intern II
PES 611 Clin Intern III	PTS 611 Clin Intern II
PES 612 Clin Intern IV	PTS 612 Clin Intern IV
PES 613 Clin Intern V	PTS 613 Clin Intern V
PES 614 Neurorehab I	PTS 614 Neurorehab I
PES 615 Neurorehab II	PTS 615 Neurorehab II
PES 616 Clin Research I	PTS 616 Clin Research I
PES 617 Clin Research II	PTS 617 Clin Research II
PES 618 PT Administration	PTS 618 PT Administration
PES 624 Cardio-resp PT	PTS 624 Cardio-resp PT
PES 626 Ther Ex II	PTS 626 Ther Ex II
PES 627 Ther Ex III	PTS 626 Ther Ex III
PES 628 Orthopedics II	PTS 628 Orthopedics II
PES 629 Orthopedics III	PTS 629 Orthopedics III

Elective

Elective

---- Graduate with M.S.P.T. from School of Medicine ----

ADVANCED MASTER'S IN PHYSICAL THERAPY - M.S.:

(Not operational at the present time, but projected to commence in Summer, 88)

PES 630 Orthopedics IV	PTS 630 Orthopedics IV
PES 631 Orthopedics V	PTS 631 Orthopedics V
PES 632 Sem Ortho PT	PTS 632 Sem Ortho PT
PES 633 Sem Sports PT	PTS 633 Sem Sports PT
PES 634 Sem Electrother	PTS 634 Sem Electrother

COURSE LISTING: Physical Therapy Science (PTS)

530. Foundations of Physical Therapy
(Formerly PES 230)
3 cr.

Historical development, foundations and contemporary practice of physical therapy in the United States. Traditional and emerging roles and responsibilities of the physical therapist. A treatment cycle model will be introduced. Pre-requisite: Physical Therapy majors only.

531. Gross Anatomy for Physical Therapists I
(Formerly PES 231)
3 cr.

Gross human anatomy with emphasis on head, neck, trunk and extremities and organic systems relevant to physical therapy practice. Lecture and human dissection. Pre-requisite: Physical Therapy majors only.

532. Gross Anatomy for Physical Therapists II
(Formerly PES 232)
3 cr.

Continuation of PTS 531, Gross Anatomy for Physical Therapists I. Pre-requisite: For Physical Therapy majors only.

533. Communications in Physical Therapy Practice
(Formerly PES 233)
3 cr.

Analysis of communication skills in physical therapy clinical practice. Emphasis on instruction of patients and their families, supportive staff, and health care team members. In-depth examination of patient-therapist interactions. Pre-requisite: For Physical Therapy majors only.

540. Neuroanatomy
(Formerly PES U540)
3 cr.

The human central nervous system with emphasis on structure-function relationships and clinical applications. The brain, spinal cord, cranial nerves, tracts, and nuclei of major systems. Central nervous system lesions and their clinical significance. Lecture and human dissection. Pre-requisite: Physical Therapy majors only.

541. Neurophysiology
(Formerly PES 541)
3 cr.

The central, peripheral, and autonomic nervous systems and their physiological responses to environmental stimuli. The clinical significance of altered neuro-physiological states. Pre-requisite: For Physical Therapy majors only.

542. Electrotherapy
(Formerly PES 542)
3 cr.

Evaluation of nerve and skeletal muscle by electrical means. The therapeutic application of selected modalities such as ultraviolet, the diathermies, AC and/or DC currents, electrical stimulation combined with ultrasound, biofeedback, traction, transcutaneous electrical nerve stimulation (TENS), and laser therapy. Classroom instruction, individual investigation, and laboratory practice.

Pre-requisite: For Physical Therapy majors only.

570. Physical Therapy Clinical Skills
(Formerly PES 470)
3 cr.

Skills essential to the practice of physical therapy. Theory and techniques for monitoring vital signs, massage, patient transfers, and gait training. Physiological rationale and the implementation of heat, cold, water and ultrasound modalities. Classroom instruction and laboratory practice. Pre-requisite: For Physical Therapy majors only.

571. Therapeutic Exercise I
(Formerly PES 471)
3 cr.

Physiological effects of exercise and training for the healthy and diseased individual. The use of exercise for joint and muscle mobility, muscle strength, and cardiopulmonary function. Pre-requisite: For Physical Therapy majors only.

572. Analysis of Normal Human Motion
(Formerly PES 472)
3 cr.

Analysis of the anatomical and biomechanical aspects of normal human motion. Relationship of structure and function as they pertain to posture and gait. Analysis of athletic and non-athletic activities. Classroom instruction, and laboratory practice. Pre-requisite: For Physical Therapy majors only.

573. Analysis of Abnormal Human Motion
(Formerly PES 473)
3 cr.

Analysis of the anatomical and biomechanical aspects of abnormal human motion. Relationship of abnormal structure and function as they pertain to posture and gait. Therapeutic intervention to promote improved human motion. Classroom instruction, individual investigation, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only.

574. Orthopedics I
(Formerly PES 474)
3 cr.

Basic orthopedic evaluation skills for patients with various diseases and dysfunctions. Skills will include surface palpation, manual muscle testing, and goniometric measurement. Classroom instruction and laboratory practice. Pre-requisite: For Physical Therapy majors only.

578. Clinical Internship I
(Formerly PES 478)
3 cr.

Supervised, clinical education emphasizing skills previously taught in course sequences. Competence is expected in areas such as basic musculoskeletal evaluation, patient transfers, gait training, and application of basic modalities and massage techniques. Pre-requisite: For Physical Therapy majors only.

610. Clinical Internship II
(Formerly PES 610)
3 cr.

Supervised, clinical education emphasizing skills previously taught in course sequences. Competence is expected in areas such as analysis of normal and abnormal motion, electrical modalities, exercise, and evaluation and treatment for cardiopulmonary dysfunctions. Pre-requisite: For Physical Therapy majors only.

611. Clinical Internship III
(Formerly PES 611)
3 cr.

Supervised, clinical education emphasizing skills previously taught in course sequences. Competence is expected in such areas as evaluation and treatment of extremity dysfunctions, wound care and neuromuscular dysfunctions. Pre-requisite: For Physical Therapy majors only.

612. Clinical Internship IV.
(Formerly PES 612)
3 cr.

Supervised, clinical education emphasizing skills previously taught in course sequences. Competence is expected in areas such as neurofacilitation techniques, evaluation and treatment of amputees, central nervous system dysfunctions and spinal cord injuries. Pre-requisite: For Physical Therapy majors only.

613. Clinical Internship V.
(Formerly PES 613)
3 cr.

Supervised, clinical education emphasizing skills previously taught in course sequences. Competence is expected in areas such as conservative management of spinal dysfunctions, growth and development neurofacilitation techniques, central nervous system dysfunctions, clinical administrative procedures and clinical research techniques. Pre-requisite: For Physical Therapy majors only.

614. Neurorehabilitation I
(Formerly PES 614)
3 cr.

A holistic approach to the evaluation and treatment of the adult patient with central nervous system diseases and dysfunctions. Classroom instruction, individual investigation, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only.

615. Neurorehabilitation II
(Formerly PES 615)
3 cr.

A holistic approach to the evaluation and treatment of the pediatric patient with central nervous system diseases and dysfunctions. Classroom instruction, individual investigation, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only.

616. Clinical Research I
(Formerly PES 616)
3 cr.

The principles and concepts of clinical research in physical therapy. Experimental design and the use of basic and advanced statistical analysis techniques, commonly used in physical therapy research. Critical analysis of current literature. The design of an original physical therapy research project and the preparation of a written, formal research proposal. Pre-requisite: an Introductory Statistics course; For Physical Therapy majors only.

617. Clinical Research II
(Formerly PES 617)
3 cr.

Implementation of the physical therapy research proposal designed in Clinical Research I. Both written and the oral presentation of the research results. Submission of the research to an appropriate journal or publication. Pre-requisite: PTS 616; For Physical Therapy majors only.

618. Physical Therapy Administration
(Formerly PES 618)
3 cr.

Physical therapy services, departmental policies and procedures, and personnel management. Issues relevant to clinical practice and the physical therapy profession. An administrative project. Pre-requisite: For Physical Therapy majors only.

624. Cardio-respiratory Physical Therapy
(Formerly PES 624)
3 cr.

The skills necessary for the evaluation and treatment of patients with various cardio-respiratory diseases and dysfunctions. In-patient and out-patient cardiac and respiratory rehabilitation. Research on prevention of cardio-respiratory diseases and dysfunctions as they relate to evaluative and therapeutic methods. Classroom instruction, individual investigation, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only.

626. Therapeutic Exercise II
(Formerly PES 626)
3 cr.

A holistic approach to the evaluation, treatment and management of patients with various neuromuscular diseases and dysfunctions. Appropriate therapeutic exercises interrelated with modalities and self-help devices. Individual investigation of respective neuromuscular diseases and dysfunctions. Classroom instruction and laboratory practice. Pre-requisite: For Physical Therapy majors only.

627. Therapeutic Exercise III
(Formerly PES 627)
3 cr.

A holistic approach to the evaluation, treatment and management of patients with amputations and spinal cord injuries. Appropriate therapeutic exercises interrelated with self-help appliances. Individual investigation of respective amputation and spinal cord problems. Classroom instruction and laboratory practice. Pre-requisite: For Physical Therapy majors only.

628. Orthopedics II
(Formerly PES 628)
3 cr.

The evaluation and treatment of various extremity dysfunctions. Review and investigation of the literature relevant to the hip, knee, ankle, foot, shoulder, elbow, wrist and hand. Clinical evaluation and treatment procedures. Classroom instruction, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only.

629. Orthopedics III
(Formerly PES 629)
3 cr.

The evaluation and treatment of various spinal dysfunctions. Review and investigation of the literature relevant to the sacro-iliac, lumbar, thoracic, cervical spines, and the head and the neck. Clinical evaluation and treatment procedures. Classroom instruction laboratory practice, and clinical experience. Pre-requisite: For Physical Therapy majors only.

630. Orthopedics IV
(Formerly PES 630)
3 cr.

In-depth evaluation and treatment of various lumbar spine dysfunctions. Review and investigation of the literature relevant to the thoracic and lumbar spines, and the sacro-iliac region. Clinical evaluation and treatment procedures. Classroom instruction, laboratory practice and clinical experience. Pre-requisite: For Physical Therapy majors only or with permission of instructor.

631. Orthopedics V
(Formerly PES 631)
3 cr.

In-depth evaluation and treatment of various cervical spine dysfunctions. Review and investigation of the literature relevant to the cervical and thoracic spines, sub-occipital region, and the head and neck. Clinical evaluation and treatment procedures. Pre-requisite: For Physical Therapy majors only or with permission of instructor.

632. Seminar in Orthopedic Physical Therapy
(Formerly PES 632)
3 cr.

Relevant issues in orthopedic physical therapy. Problem identification, investigation, analysis, and problem-solving approaches. Pre-requisite: For Physical Therapy majors only or with permission of instructor.

633. Seminar in Sports Physical Therapy
(Formerly PES 633)
3 cr.

Relevant issues in sports physical therapy. Problem identification, investigation, analysis, and problem-solving approaches. Pre-requisite: For Physical Therapy majors only or with permission of instructor.

634. Seminar in Electrotherapy
(Formerly PES 634)
3 cr.

Relevant issues in the use of electrical modalities in physical therapy. Problem identification, investigation, analysis, and problem-solving approaches. Pre-requisite: For Physical Therapy majors only or with permission of instructor.

THE FACULTY:

1. Faculty members and Course responsibilities -
Program in Physical Therapy
2. Consecutive Course Schedule with faculty -
Academic Years 1987-89

PHYSICAL THERAPY FACULTY - ACADEMIC YEAR 1987-88:

PHYSICAL THERAPY - PERMANENT FACULTY:

<u>Faculty member and tenure status:</u>	<u>Course responsibilities:</u>
Sherrill H. Hayes, M.S., P.T. Tenure-track Associate Professor	PTS 540 Neuroanatomy PTS 541 Neurophysiology PTS 530 Found. in P.T.
Gerard J. Bourguignon, Ph.D., P.T. Tenure-track Associate Professor	PTS 616 Clin. Research I PTS 617 Clin. Research II PTS 542 Electrotherapy
Robert W. Gailey, M.S., P.T. Non-tenure track Instructor	PTS 573 Anal Norm Motion PTS 574 Anal Abn Motion PTS 626 Ther. Exer. II PTS 627 Ther. Exer. III
Edelle C. Field, B.S., P.T. Non-tenure track Instructor-Adjunct	PTS 570 Clinical Skills (Academic Coordinator - Clinical Education: all Clin. Internships I-V)
Carol M. Davis, Ed.D., P.T. Tenure-track Assistant Professor	PTS 570 Clinical Skills PTS 533 Communications PTS 578, 610, 611, 612, 613
Michael L. Voight, M.S., P.T., A.T.C. Non-tenure track Instructor-Adjunct (50%)	PTS 572 Orthopedics I PTS 628 Orthopedics II PTS 530 Found. in P.T. PTS 633 Sem. Sports P.T.

PERMANENT FACULTY - OTHER DEPARTMENTS:

Philip R. Waggoner, Ph.D. Tenured Associate Professor - ACB (60%-PT)	PTS 531 Gross Anatomy I PTS 532 Gross Anatomy II
Ronald G. Clark, Ph.D. Tenured Associate Professor - ACB	PTS 540 Neuroanatomy
Stephen R. Goldberg, M.D. Tenured Associate Professor - ACB	PTS 540 Neuroanatomy
Bernard S. Brucker, Ph.D. Tenured Associate Professor - ORN	PTS 533 Communications
Arlette C. Perry, Ph.D. Tenured Associate Professor - SEAP	PTS 571 Ther. Exer. I

Helen R. Masin, M.M.Sc., P.T. PTS 615 Neurorehab. II
 Non-tenure track
 Clinical Assistant Prof. - PED

PHYSICAL THERAPY - ADJUNCT PROFESSORS/INSTRUCTORS:

Holly H. Wise, Ph.D., P.T. PTS 542 Electrotherapy
 Non-tenure track PTS 614 Neurorehab. I
 Assistant Professor-Adjunct

Craig H. Pahl, B.S., P.T. PTS 542 Electrotherapy
 Non-tenure track PTS 618 Administration
 Instructor-Adjunct

Phyllis S. Lehmann, M.S., P.T. PTS 542 Electrotherapy
 Non-tenure track
 Instructor-Adjunct

SueEllen Storey, M.M.Sc., P.T. PTS 624 Card-Resp.Ther.
 Non-tenure track
 Instructor-Adjunct

PHYSICAL THERAPY - VISITING PROFESSORS - OTHER INSTITUTIONS:

Steven J. Rose, Ph.D., P.T. PTS 616 Clin. Research I
 Non-tenure track PTS 617 Clin. Research II
 Visiting Professor-Washington U.

Linda D. Crane, M.M.Sc., P.T. PTS 624 Card-Resp.Ther.
 Non-tenure track
 Visit. Assoc. Prof.-U of New England

Barbara J. Connolly, Ed.D., P.T. PTS 615 Neurorehab. II
 Non-tenure track
 Visiting Assoc. Prof.-U of Tennessee

TBA PTS 629 Orthopedics III
 Tenure track PTS 630 Orthopedics IV
 Assistant Professor PTS 631 Orthopedics V
 PTS 632 Seminar in Ortho.

TBA PTS 634 Sem. in Electro.
 Tenure track Coord. of Adv.Grad.Prog.

Further information regarding TBA lines, Visiting Professors:

TBA Lines for Physical Therapy Faculty:

TBA #1: This is a tenure-track position for the Advanced Master's Degree Program in the Orthopedic Specialty Track. This position will be posted in the Fall, 1987, to be filled by the Fall of 1988.

TBA #2: This is a tenure-track position for the Advanced Master's Degree Program, and will also incorporate administrative duties as the Director of Graduate Studies for the M.S. Advanced degree. A research emphasis will be strongly sought for this position, to direct research studies for both programs. Content specialty may vary (Electrotherapy or Orthopedic specialties, depending on the persons identified for this position or the above-named TBA #1.

Visiting Professors:

The use of Visiting Professors as experts in the field is widely used in many educational programs, Physical Therapy being one of them. When available resources in the form of full-time faculty members are limited, Visiting Professors are utilized to supplement and complement existing faculty. Often, individuals are utilized on a regular and recurring basis (as with Dr. Barbara Connolly, University of Tennessee) until such time as a full-time faculty member with specialty in that particular area is identified. More often, there are certain individuals whose expertise is of such reknown that their presence is necessary to ensure the highest quality of education for our students. In essence, all attempts are made to cover needed content areas when identifying faculty (FTE's) for present and future needs of the program. When areas are not covered, experts in the form of adjuncts or visiting professors are sought.

Faculty Lines Existing and Anticipated Needs:

Present: 7 FTE's (5 FTE's, 1 @ 50%, 1 @ 60%, 1 unfilled FTE)

1988-89 Needs: 2 FTE's (TBA 1 and 2) + unfilled FTE 1987-88

1989-90 Needs: 2 FTE's for Advanced Master's Content areas to be developed

PHYSICAL THERAPY CURRICULUM - COURSE LISTING AND FACULTY:

ACADEMIC YEAR 1987-88:

Summer Session I: (Entry Level Master's I - ELM I, Class of '89)

- PTS 531 Gross Anatomy I
Dr. Philip Waggoner - Main Instructor
Mr. Robert Gailey - Lab Assistant
- PTS 530 Foundations in Physical Therapy
Mr. Michael Voight - Main Instructor
Ms. Sherrill Hayes - Assistant Instructor

Summer Session II: (ELM I - Class of '89)

- PTS 532 Gross Anatomy II
Dr. Philip Waggoner - Main Instructor
Mr. Robert Gailey - Lab Assistant
- PTS 571 Therapeutic Exercise I
Dr. Arlette Perry - Main Instructor
Ms. Patricia Moser - Lab Assistant

Fall Semester, 87: (ELM I - Class of '89)

- PTS 540 Neuroanatomy
Ms. Sherrill Hayes - Instructor, Coordinator
Dr. Stephen Goldberg - Instructor
Dr. Ronald Clark - Instructor
- PTS 570 Physical Therapy Clinical Skills
Dr. Carol Davis - Coordinator
Ms. Edelle Field - Instructor
- PTS 572 Orthopedics I
Mr. Michael Voight - Main Instructor
- PTS 573 Analysis of Normal Human Motion
Mr. Robert Gailey - Main Instructor
Adjuncts

FALL SEMESTER, 1987: (ELM II - Class of '88)

- PTS 542 Electrotherapy
Dr. Holly Wise - Main Instructor
Mr. Craig Pahl - Instructor
Ms. Phyllis Lehman - Instructor
TBA - Coordinator

- PTS 610 Clinical Internship II
Ms. Edelle Field - Coordinator
- PTS 616 Clinical Research I
Dr. Gerard Bourguignon - Main Instructor
Dr. Stephen Rose - Instructor
- PTS 624 Cardio-respiratory Physical Therapy
Ms. SueEllen Storey - Main Instructor
Ms. Linda Crane - Instructor
- PTS 626 Therapeutic Exercise II
Mr. Robert Gailey - Main Instructor, Coordinator
Adjuncts

SPRING SEMESTER, 1988: (ELM I - Class of '89)

- PTS 533 Communications in Physical Therapy
Dr. Carol Davis - Main Instructor
Dr. Bernard Brucker - Instructor
- PTS 541 Neurophysiology
Ms. Sherrill Hayes - Main Instructor
- PTS 574 Analysis of Abnormal Human Motion
Mr. Robert Gailey - Main Instructor
Adjuncts
- PTS 578 Clinical Internship I
Ms. Edelle Field - Coordinator

SPRING SEMESTER, 1988: (ELM II, Class of '88)

- PTS 611 Clinical Internship III
Ms. Edelle Field - Coordinator
- PTS 614 Neurorehabilitation I
Dr. Holly Wise - Coordinator
Adjuncts
TBA
- PTS 628 Orthopedics II
Mr. Michael Voight - Main Instructor
- PTS 627 Therapeutic Exercise III
Mr. Robert Gailey - Main Instructor, Coordinator
Adjuncts

ACADEMIC YEAR - 1988-89: COURSES AND FACULTY:

SUMMER SESSION I, 1988: (ELM III - Class of '88)

- PTS 615 Neurorehabilitation II
TBA - Coordinator
Ms. Helen Masin - Instructor
Dr. Barbara Connolly - Instructor
- PTS 618 Physical Therapy Administration
TBA - Main Instructor
Mr. Craig Pahl - Instructor

SUMMER SESSION I, 1988: (ELM I - Class of '90)

- PTS 531 Gross Anatomy I
Dr. Philip Waggoner - Main Instructor
Mr. Robert Gailey - Lab Assistant
- PTS 530 Foundations in Physical Therapy
Mr. Michael Voight - Main Instructor
Ms. Sherrill Hayes - Assistant Instructor

SUMMER SESSION II, 1988: (ELM III - Class of '88)

- PTS 629 Orthopedics III
TBA - Main Instructor

SUMMER SESSION II, 1988: (ELM I - Class of '90)

- PTS 532 Gross Anatomy II
Dr. Philip Waggoner - Main Instructor
Mr. Robert Gailey - Lab Assistant
- PTS 571 Therapeutic Exercise I
Dr. Arlette Perry - Main Instructor
Ms. Patricia Moser - Lab Assistant

FALL SEMESTER, 1988: (ELM III - Class of '88)

- PTS 612 Clinical Internship IV
Ms. Edelle Field - Coordinator
- PTS 613 Clinical Internship V
Ms. Edelle Field - Coordinator

PTS 617 Clinical Research II
Dr. Gerard Bourguignon - Coordinator
Dr. Steven Rose - Consultant

** GRADUATE FIRST CLASS, DECEMBER, 1988 - M.S.P.T.-SOM **

FALL SEMESTER, 1988: (ELM II - Class of '89)

(Same as Fall, 1987 - ELM II)

FALL SEMESTER, 1988: (ELM I - Class of '90)

(Same as Fall, 1987 - ELM I)

SPRING SEMESTER, 1989: (ELM II - Class of '89)

(Same as Spring, 1988 - ELM II)

SPRING SEMESTER, 1989: (ELM I - Class of '90)

(Same as Spring, 1988 - ELM I)

SHH/1987

CURRICULUM VITAE:

1. Permanent Faculty - Division of Physical Therapy
2. Permanent Faculty - other Departments
3. Adjunct Faculty
4. Visiting Professors - other Institutions

PERMANENT FACULTY - DIVISION OF PHYSICAL THERAPY

Alphabetical Listing:

Bourguignon, Gerard J.
Davis, Carol M.
Field, Edelle C.
Gailey, Robert S.
Hayes, Sherrill H.
Voight, Michael L.

Date: June 1986

PERSONAL

Name: Gerard J. Bourguignon, Ph.D., P.T.

Home Phone: (305) 742-8085

Office Phone: (305) 284-4535

Home Address: 8870 S.W. 85th Street, Miami, FL 33173

Emmloyment Status: Full Time

Current Rank: Associate Professor Primary Department: Res. & Grad.
Stud.

Citizenship: USA

HIGHER EDUCATION

Institutional:

Cornell University, B.A. (Honors in Chemistry), June 1963

University of California, Berkeley, Graduate studies in Chemistry,
1963-1964

State University of New York, Stony Brook, Ph.D. in Biochemistry,
December 1972

University of Miami, Miami, FL, B.S. in Education, Certificate in
Physical Therapy, May 1983

Non-Institutional Training:

Sports Medicine and Physical Fitness Seminar; J. Ciolek, LPT,ATC,
and R. Volski, PT,ATC; Ft. Lauderdale, FL; April 1982

Electrical Stimulationn Workshop; D. Currier, Ph.D.; Washington
University, St. Louis, MO; April 1983

Statistics and Research Design Course; E. Michels; Washington
University, St. Louis, MO; April 1983

Lennox Hill Brace Workshop, M. Farmer, P.T.; Jackson Memorial
Hospital, Miami, FL; September 1983

Spinal Traction Workshop; D. Saunders, PT; Ft. Lauderdale, FL,
January 1984

High Voltage Galvanic Stimulation Workshop; S. Quillen, PT
and C. Killan, PT; Ft. Lauderdale, FL; January 1984

Spinal Evaluation, Treatment and Mobilization Course;
I. Fiebert, Ph.D., PT, St. John's Nursing & Rehab;
Lauderdale Lakes, FL; February 1984

Neurorehabilitation: An Integrated Approach; S. Farber, ORT and
R. Porter, PT; Palmetto General Hospital, Hialeah, FL;
March 1984

EMG Biofeedback Workshop;; S. Wolf, Ph.D., PT, Jackson Memorial Hosp.,
Miami, FL;; June 1984

Sports Medicine Workshop, Park City, Utah; March 1985

Physical Therapy Refresher course, University of Florida,
Gainesville, FL; May 1985

Certification and Licensure:

Physical Therapy State License: Florida

EXPERIENCE

Instructional:

Research Assistant Professor; Department of Biological Sciences,
Wayne State University, Detroit, MI; 1978 - 1981

Research Associate; Dept. of Anatomy and Cell Biology, Univ. of Miami
Medical School, Miami, FL; 1981 - 1983

Program Director, University of Miami Program in Physical Therapy,
Miami, FL; June-October 1985

Associate Professor, University of Miami Program in Physical Therapy,
Miami, FL; 1983 - Present

Professional:

Technical Administration Officer, U.S. Army Chemical Corps,
1965 - 1967

Research Scientist, Michigan Cancer Foundation, Detroit, MI.,
1977 - 1978

PUBLICATIONS

Baird, J., G.J. Bourguignon and R. Sternglanz. Effect of Nalidixic
Acid on DNA Bacteriophage. J. of Virology 9: 17 (1972)

Bourguignon, G.J., M. Levitt, and R. Sternglanz. Studies on the
Mechanism of Action of Nalidixic Acid. Antimicrobial Agents
and Chemotherapy 4: 479 (1973)

- Dermody, J.J., G.J. Bourguignon, P.D. Fogelson and R. Sternglanz. Nalidixic Acid-Sensitive and Resistant Modes of Replication in E. Coli. *Biochemical and Biophysical Research Communications* 61: 1340 (1974)
- Bourguignon, G.H., T.K. Sweeney and H. Delius. Multiple Origins and Circular Structures in Replicating T5 Bacteriophage DNA. *J. of Virology* 18: 245 (1976)
- Bourguignon, G.J., P. Tattersall and D.C. Ward. DNA of Minute Virus of Mice: a Single-stranded Genome With a Terminal Hairpin Duplex. *J. of Virology* 20: 290 (1977)
- Furmanski, P., G.J. Bourguignon, C.S. Bolles, J.D. Corombos and M.R. Das. Inhibition by 2', 3' - Deoxythymidine of Retroviral Infection of Mouse and Human Cells. *Cancer Letters* 8: 307 (1980)
- Butman, B.T., G.J. Bourguignon and L.Y.W. Bourguignon. Lymphocyte Capping Induced by Polycationized Ferritin. *J. of Cell Physiology* 105: 7 (1980)
- Bourguignon, L.Y.W. and G.J. Bourguignon. Immunocytochemical Localization of Intermediate Filament Proteins During Lymphocyte Capping. *Cell Biology International Reports* 5: 783 (1981)
- Bourguignon, G.J. and L.Y.W. Bourguignon. Isolation and Initial Characterization of a Cymphocyte Cap Structure. *Biochemica et Biophysica Acta* 646: 109 (1981)
- Bourguignon, L.Y.W. and G.J. Bourguignon. Capping and the Cytoskeleton. *International Review of Cytology* 87: 195 (1984)
- Bourguignon, G.J., Volski, R.V., and H.M. Rodriguez. Correlation of Positive Ober Test With Back Pain in Shooters. *Physical Therapy* 64: 736A (1984)
- Bourguignon, L.Y.W., S. Field and G.J. Bourguignon. Phosphorylation of a Tropomyosin-Like (30KD) Protein During Platelet Activation. *J. of Cellular Biochemistry* 29: 19 (1985)
- Bourguignon, L.Y.W., G. Walker and G.J. Bourguignon. Phorbol Ester-induced Phosphorylation of a Transmembrane Glycoprotein (GP 180) in Human Blood Platelets. *J. of Biol. Chem.* 260: 11775 (1985)
- Volski, R.V., G.J. Bourguignon and H.M. Rodriguez. Lower Spine Screening in the Shooting Sports. *Physician & Sports Medicine* (in press January 1986)

Bourguignon, G.J., Marie Berguignan and L.Y.W. Bourguignon.
Effect of High Voltage Galvanic Stimulation on Human Skin
Fibroblasts. (in preparation)

CURRENT RESEARCH PROJECTS

Effect of High Voltage Galvanic Stimulation on the Healing of
Decubitus Ulcers and Skin Wounds.

Use of Electromyography and EMG Biofeedback in the Diagnosis and
Treatment of Knee Dysfunctions.

GRANTS

Biochemical and Immunocytochemical Studies on Lymphocyte Membrane
Proteins, National Institutes of Health, 1978 - 1981

Analysis of Nuclear Membranes in Normal and Transformed Lymphoid
Cells, American Cancer Society, 1980- 1981

Use of Electromyography and EMG Biofeedback in the Diaagnosis and
Treatment of Patellar Tracking Dysfunction, University of Miami
Research Incentive Award, 1984 - 1985

OTHER PROFESSIONAL ACTIVITIES

Member of University Committee on Scholarships, 1984 - Present

Member of University Committee on Research Incentive Awards,
1984 - Present

Attended American Physical Therapy Association Natinal Meetings;
Kansas City, June 1983; Las Vegas, June 1984; Orlando, Feb.
1985, New Orleans, June 1985; Chicago, June 1986

Presented Research Paper on Low Back Pain in Rifle and Pistol
Shooters, APTA National Conference, Las Vegas, June 1984.

Attended Florida Physical Therapy Association Meetings, 1981 - 1986

Faculty Participant at the FPTA Student Conclave, Sorrento, FL
September 1984

Research Consultant for FPTA, 1983 - Present

Participant in the Dade County High School Athlete Pre-season
Screening Program, 1984 - Present

Scientific and Professional Presentations:

Research paper, "Phosphorylation of a Tropomyosin-Like (30 KD) Protein During Platelet Activation", U.C.L.A. Research Symposium, Park City, Utah, March 1985

Research paper "Phorbol Ester-Induced Phosphorylation of A Transmembrane Glycoprotein (GP 180) in Human Blood Platelets", American Society for Cell Biology, Atlanta, GA 1985

Workshops Conducted:

Seminar on "Knee Rehabilitation" in a workshop sponsored by the Dade County High School Athlete Screening Program, May 1985

PROFESSIONAL AND HONORARY ORGANIZATIONS

Active Member - American Association for the Advancement of Science
Since 1973

Active Member - American Physical Therapy Association
Since 1982

Active Member - Phi Kappa Phi Honorary Society, Since 1982

Cornell University National Scholar, 1959-1963

B.A. with Honors in Chemistry, Cornell University, 1963

President's Honor Roll, University of Miami, 1982 - 1983

POST DOCTORAL FELLOWSHIP

Department of Medicine, University of California, LaJolla, CA,
1975 - 1977

Department of Molecular Biophysics and Biochemistry, Yale
University Medical School, New Haven, CT, 1973 - 1975

Research Fellow, Cold Spring Harbor Laboratory, Cold Spring Harbor,
NY, 1972 - 1973

CURRENT TEACHING RESPONSIBILITIES-PROGRAM IN PHYSICAL THERAPY

Fall Semester 616 Clinical Research I

BOSTON UNIVERSITY SARGENT COLLEGE OF ALLIED HEALTH PROFESSIONS

DATE: May 1986

NAME: CAROL MARJORIE DAVIS, Ed. D.

ADDRESS: 11 Shanley Street
Brighton, MA. 02135

TELEPHONE: (617) 254-7037

BIRTH DATE: April 3, 1945

BIRTHPLACE: Williamsport, Pennsylvania

EDUCATION: Boston University, Ed.D.
January 1982

University of Alabama in Birmingham
No degree, 1974-1977

Case Western Reserve University, M.S.
September 1969

Lycoming College, B.A.
June 1967

LICENSURE: Massachusetts: #731
Massachusetts: #1669 - Current
Alabama: #169
Florida: #2850

EMPLOYMENT: Assistant Professor,
Department of Physical Therapy
Boston University, Boston, Massachusetts
Sargent College, 1978-1980, 1985-1987

Acting Co-Chair
Department of Physical Therapy
Sargent College, Boston University
Boston, Massachusetts, 1986-1987

Member of Undergraduate Faculty
University of Alabama in Birmingham
1971-1977

Member of Graduate Faculty
Physical Therapy
University of Alabama in Birmingham
1973-1977
Boston University, 1978-1980

Assistant Professor, School of Medicine
University of Miami, 1982-1984

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EMPLOYMENT: Visiting Professor
(continued) Medical College of Georgia, 1977-1982
University of Miami, Physical Therapy
1982-1984

EXPERIENCE: Massachusetts General Hospital
(Professional) Staff Physical Therapists, Clinical Instructor
1969-1971

Don Orione Nursing Home
East Boston, Massachusetts
Consultant Physical Therapist, Educator
1977-1980

Hospice, Inc., Dade County, Florida
Physical Therapist, Staff Instructor, 1981

Cedars of Lebanon Hospital, Miami, Florida
Sr. Physical Therapist, Clinical Instructor,
1981-1982

South Miami Hospital, Miami, Florida
Sr. Physical Therapist, Clinical Instructor,
1982

South Shore Hospital, Miami Beach, Florida
Coordinator, Office of Professional Education,
Coordinator Fellowship in Clinical Geriatrics,
1982-1984

Self-employed, Home care physical therapists;
Consultant to Family Medicine Associates,
University of Miami; Consultant to various
hospitals and universities throughout the USA
and Canada

SCIENTIFIC Physical Therapy - National

PROFESSIONAL

HONORARY
SOCIETIES

APTA Licensure Examinations Committee
1972-1976

APTA Section for Education; Vice President
1975-1977

APTA Section for Education Task Force on
Clinical Education in the U.S., 1974-1975

APTA Task Force to Develop Process Document for
the Essentials for Basic Education in Physical
Therapy, 1976

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SCIENTIFIC
PROFESSIONAL
HONORARY
SOCIETIES
(continued)

APTA Committee on Physical Therapy Competencies,
1977-1981

APTA Dept of Education: On Site Evaluator for
accreditation in physical therapy 1982-1987

On Site Evaluator Faculty Member for Training
Institute, June 1986

APTA Council on Accreditation in Education
member 1987-present

APTA Foundation for Physical Therapy:
Research Grant Reviewer, 1981-1984

APTA Task Force; Physical Therapy Education
and Societal Needs-Guidelines for P.T.
Education. Dept. of Education, 1982-1984

Manuscript
Reviewer

Physical Therapy, Journal of the American
Physical Therapy Association
Topics in Geriatric Rehabilitation
Journal of the Section for Education - APTA

Book
Reviewer

Physical Therapy, Journal of the American
Physical Therapy Association

Physical
Therapy
State

Massachusetts: Usher Committee National
Conference, 1971.
Secretary - Program Committee, 1970-1971

Alabama: Chair-Peer Review Committee 1972-1974

By-law Committee - Southeast Region, Section for
Education, 1974

Florida: Public Relations Committee 1982-1984

Delegate to the Board - Southeast Region
1982-1984

Director at Large-Florida Physical Therapy
Association, Board of Directors, 1983-1984

Other

Society for Health and Human Values
1977 - present

Hastings Center Institute of Society, Ethics
and the Life Sciences 1978 - Present

Society of Teachers of Family Medicine, 1982-1985

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Research
Performed:

An Isokinetic Test of Motor Control in Flexing and Extending the Forearm, Master's Thesis, Case Western Reserve University, 1969.

HEW Grant # 1, A13 AH 0010-01, Clinical Facility Workshops, University of Alabama in Birmingham, May 1973-February 1974.

DPH Grant, Conjoint Master's Degree Curriculum in Clinical Teaching for Physical Therapy, Occupational Therapy, and Nutrition, Sargent College, Boston University, 1978-1980.

A Phenomenological Description of Empathy as it Occurs Within Physical Therapists for Their Patients, Dissertation for the degree Ed.D., Boston University, Department of Humanistic Studies, January 1982.

Thesis and
Dissertation
Advising

Committee member for several theses, University of Alabama in Birmingham, 1974-1977;
Boston University, Sargent College 1978-1980

Committee member: Doctoral Dissertation, Sr. Kathleen Burke, Union Graduate School, Importance of the Spiritual Dimension of Art Therapy in the Treatment of Chemically Dependent Adolescents.

Site Visits
for
Accreditation

September 1982, May 1983, May 1984, August 1985, November 1985, February 1986, October 1986, March 1987.

Community
Activities

Outreach Counselor - Telephone Counselor, Suicide Prevention Program, Birmingham, Ala.

Deacon - University Lutheran Church
Cambridge, Massachusetts

National Organization for Women, Boston Chapter,
Dade County Florida Chapter.

Mental Health Association of Dade County, Florida
Council on Aging.

South Florida Oncology Group

Carol M. Davis
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Publications Juried or refereed journal articles

- Davis, C.M.: Does Clinical Practice Offer a Challenge After Graduate School? What's the Answer, Physical Therapy, Vol. 53, No. 9, September 1973.
- Davis, C.M., McKain, A.: Clinical Education: Awareness of Our Not-OK Behavior, Physical Therapy, Vol. 55, May 1975.
- Davis, C.M.: Discussant for Purtilo RB: The Right to Health Care. Physical Therapy, Vol. 59, June 1979, pp. 731-732.
- Davis, C.M., Anderson, M., Jagger, D: Competency - What, Why and How it Affects You. Physical Therapy, Vol. 59, September 1979, pp 1088-1094.
- Davis, C.M.: Affective Education for the Health Professions - Facilitating Appropriate Behavior. Physical Therapy, Vol. 61, November 1981.
- Davis, C.M.: Issue Editor (1:2) Topics in Geriatric Rehabilitation, Psychosocial Aspects of Aging, Aspen Publishers, January 1986.
- Davis, C.M.: The Role of the Physical and Occupational Therapist in Caring for the Victim of Alzheimer's Disease. PT and OT in Geriatrics, 4(#4), Summer 1986.

Non refereed articles

- Davis, C.M.: Role of Values in Setting Priorities in Clinical Instruction in: The Clinician as an Educator, Proceedings of Training Institute, Edited by May, Bella J. Ed.D., May, 1975.
- Davis, C.M.: Admissions Procedure for the Baccalaureate Physical Therapy Curriculum at the University of Alabama in Birmingham, APTA Section for Education Newsletter, Fall 1975
- Davis, C.M. Ed: Developmental Sequence of Gesturing by Edith Kaplan, Ph.D., Society for Behavioral Kinesiology, Newsletter, Spring, 1976

Carol M. Davis
Curriculum Vita/May 1987
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Non refereed
articles
(continued)

Davis, C.M.: the Carkhuff Model for Interaction as Developed by Gazda in: Interactive Strategies in, Supervision and Education, Proceedings of a Training Institute. Edited by May, Bella J. Ed.D., March 1977.

Davis C.M.: Thoughts on Improving Attitudes Through Professional Education, Physical Therapy Education, APTA Section for Education Newsletter Vol. XX, Spring 1979, pp 6-8, 20-21.

Davis C.M.: Hospice Care: Physical Therapy has a Role to Play. Clinical Management in Physical Therapy, Vol. 2, No. 2, Summer 1982, p. 78.

Davis C.M.: The Tension Inherent in Attending to Higher Level Behaviors. In Henry, J.N.: Readings in Clinical Education - a Resource Manual for Clinical Instructors. Augusta, Georgia. Medical College of Georgia, 1982.

Davis, C.M.: Lonliness and Solitude - Finding Meaning in the Later Years. Geritopics, June, 1985.

Book Chapters

Davis, C.M.: Influence of values on patient care. In Payton, DD: Clinics in Physical Therapy- Psychosocial Aspects of Patient Care. Churchill, Livingstone, New York, 1986

Davis C.M.: The influence of values on patient care - foundation for decision making. In Sullivan, SO and T. Schmitz (eds): Physical Rehabilitation-Evaluation and Treatment Procedures. 2nd ed; F.A.Davis, Philadelphia, 1987.

Davis, C.M.: The Role of the Physical and Occupational Therapist in Caring for the Victim of Alzheimer's disease. In Taira, E.(ed): Therapeutic Interventions for the Person with Dementia. New York, Haworth Press, 1986.

Book Reviews
for Physical
Therapy

Moss RH: Coping with Physical Illness. New York, NY, Plenum Book Co, 1977

Brena SF: Pain and Religion - A Psychophysiological Study. Springfield, IL, Charles C. Thomas Publishers, 1972.

Froelich RE, Bishop FM: Clinical Interviewing Skills. 3rd ed. St. Louis, C.V. Mosby, 1977

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Curriculum Vita/May 1987
Page Seven

Book Reviews
for Physical
Therapy

Collins M: Communication in Health Care. St. Louis, C. V. Mosby, 1977

Strayhorn JM: Talking it out - A guide to Effective Communication and Problem Solving. Champaign, IL, Research Press Co., 1977.

Kaslof LS: Wholistic Dimensions in Healing - A Resource Guide. Garden City, NY, Doubleday and Co., 1978

Barnard MV, Clancy, VJ, Krantz KE: Human Sexuality for Health Professionals. Philadelphia, W.B. Saunders, 1978

Who Cares? A Handbook on Sex Education and Counseling Services for Disabled People. Sex and Disability Project. Washington, D.C, George Washington University, 1979.

Cousins N: Anatomy of an Illness as Perceived by the Patient. New York, W.W. Norton and Co., 1979

Morrill RL: Teaching Values in College. San Francisco, Jossey-Bass, 1980

Perloff R, Perloff E (eds): New Directions for Program Evaluation - Values, Ethics and Standards in Evaluation. San Francisco, Jossey-Bass, 1980

McBee ML (ed): Rethinking College Responsibility for Values, San Francisco, Jossey-Bass, 1980

Veatch RM: A theory of Medical Ethics. New York Basic Books, 1981

Pellegrino ED, Thomasma DC: A Philosophical Basis of Medical Practice: Toward a Philosophy and Ethic of the Healing Professions. New York, Oxford University Press, 1981.

Cunningham RM: The Healing Mission and the Business Ethic. Chicago, Pluribus Press, 1982

Wars H, Corr CA (eds): Helping Children Cope with death - Guidelines and Resources. Washington, D.C. Hemisphere Publishing Corporation, 1982

Duda D: A Guide to Dying at Home. Santa Fe, NM, John Muir Publications, 1982

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Book Reviews
for Physical
Therapy

Wright BA: Physical Disability - A Psychosocial Approach, 2nd ed. New York, Harper and Row, 1983.

Rule WR: Lifestyle Counseling for Adjustment to Disability, Rockville, MD, Aspen, 1984.

Francoeur RT: Biomedical Ethics - A Guide to Decision Making. New York, John Wiley and Sons, 1983.

Springer D, Brubaker TH: Family Caregivers and Dependent Elderly - Minimizing Stress and Maximizing Independence. Beverly Hills, Sage Publications, 1984

Danish SJ, D'Augelli AR, Laquatra I: Helping Skills II: life Development Intervention. New York Human Sciences Press, Inc. 1983

Abstracts for
Physical
Therapy

Evans RL, Smith MA, Weikoven WS, et al: Cognitive telephone group therapy with physically disabled elderly persons. Gerontol 26: 8-10, 1986

Retsinas J, Garrity P: Going Home: Analysis of Nursing Home Discharge. Gerontol 26: 431-436, 1986

Dawson P, Reid DW: Behavioral Dimensions of Patients at risk of wandering. Gerontol 27: 104-107, 1987

Honors &
Awards

1967 Outstanding Woman on Campus - Lycoming College

1967 Sachem Honor Society - Lycoming College

1967 Who' Who in American Colleges and Universities

1968 Elks National Foundation Scholarship

1977 Practitioner - Teacher Scholar Award, School of Education, Boston University.

1978 Hattie Strong Foundation Award, Loan for Graduate Studies

1979 Outstanding Young Woman in America

1980 Dudley Allen Sargent Research Award
Boston University

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Honors &
Awards
(continued)

1985 Barbara White Lecture Aware, University
of Florida Physical Therapy Program.

Committees

Boston University Faculty Council, Appointment
Promotional Tenure Committee 1986-1987

Sargent College - Committee on Academic Policies
and Procedures - Physical Therapy 1986-1987

Sargent College Faculty Council 1986-1987

Continuing
Education
Workshops
Conducted &
Organized

Assistant Instructor - Northwestern University
Medical School, Programs in Physical Therapy
Continuing Education PNF, October, 1971

Instructor - UAB Continuing Education, Neuro-
physiological Approach to Motor Learning as Applied
to PNF, Dec. 6-10, 1971; Jan.-Feb. 1972, March 1975.

Instructor - Workshop in PNF, Southeastern Section
of Physical Therapy Educators, Georgia, State
University, March 27-28, April 11, 1975.

Small Group leader - Evaluation and Treatment of
Patients with Neuromusculoskeletal Dysfunction.
Georgia Warm Springs Foundation, April 9-13, 1972.

Instructor - Use of the Development Sequence and
PNF Facilitation Techniques in Patient Care, April
7, 1973 Tennessee Chapter - APTA - Gatlinburg,
Tenn. September 1974: Ga. Chapter APTA - Sea
Palms, Ga. 1975

Small Group Leader - Therapeutic Exercise
Southeastern District Section on Education Meeting
UNC Chapel Hill, Jan. 4-7, 1973

Coordinator - Clinical Faculty Workshops I, II,
III, Dept. of Physical Therapy, May 1973; Sept.
1973; Feb. 1973, HEW Grant # 1 A13 AH 0010-01

Group Leader - Southeastern Region Section for
Education, APTA, Dec. 16-18, 1973, Economics of
Clinical Education

Guest Speaker & Group leader - The Clinician as
an Educator; values as a Basis for Decision Making
in Clinical Education, Dept. of Physical Therapy,
Medical College of Georgia. Augusta, Ga., Oct.
15-18, 1974

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Continuing
Education
Workshops
Conducted &
Organized
(continued)

Guest Speaker - Exploring the Responsibilities of the Clinical Instructor, Southwestern Region Section for Education Meeting, Houston, Texas: March 20-23, 1975, Columbia, MO., November 23-24, 1976

Guest Speaker & Workshop Leader - Developing a Clinical Education Program in Physical Therapy, College of St. Scholastica, Duluth, Minn. February 21-22, 1975, January 16-17, 1976, October 14-16, 1977, September 15-17, 1978.

Workshop Leader - Characteristics of an effective Clinical Instructor, Dept. of Physical Therapy, Wichita State Univ., Wichita, KA, March 25, 1976

Guest Speaker - Psychological Aspects Related To Care of the Arthritis Patient with Dan Prince, M.D. Rheumatologist Allied Health Profession Section, Ala. Chapter, The Arthritis Foundation, April 23, 1976.

Guest Speaker & Small Group Leader - Clinical Instruction - What We Need to Know and What Characteristics We Must Have to be Effective - Workshop for O.T.'s and P.T.'s sponsored by Veterans Administration Central Office, June 9-10, 1976, Kansas City, Mo.

Consultant - Project to Develop Clinical Education HEW Training Grant, Hand Rehab. Center, Univ. of North Carolina at Chapel Hill, Jan F. Perry, Program Director 1976-77

Speaker & Small Group Leader - Interaction Strategies in Supervision and Education - Workshop for O.T. and P.T. Clinical Faculty: March 8-11, 1978, Augusta, Georgia

Speaker - Orientation & Evaluation of the Effectiveness of New Clinical Teachers; and values Clarification-Affective Considerations in Clinical Education; ?S.?E. Region Section for Education, Gainesville, Florida, Dec. 1-3, 1976.

Guest Lecturer/Visiting Professor - PTH 340 Interpersonal Communications Unit, Junior Class, Dept. of Physical Therapy, Medical College of Georgia, Augusta, GA, 1977, 1978, 1979, 1980, 1981 1982

Carol M. Davis
Curriculum Vita/May 1987
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Continuing
Education
Workshops
Conducted &
Organized
(continued)

Associate Trainer - Sensitivity Groups for Nursing Students - Level IV, UAB School of Nursing, Weekly for two hours. April 4 - May 30, 1977 with Ben Smith, Chaplain, UAB

Instructor - Orientation to Group Process - level IV UAB School of Nursing, April 1, 1977

Workshop Leader - Values Clarification for Clinical Faculty, Dept. of Physical Therapy, University of North Carolina, February 25, 1977

Workshop Leader - Values Clarification, U. S. Army Medical Specialists, Walter Reed Army Hospital, April 10, 1978

Workshop Leader - The Art of Clinical Instruction, Dept. of Physical Therapy, University of Wisconsin LaCross, April 4, 1977

Workshop Leader - PNF - Overview for OT's and PT's Alabama Chapter AOTA, April 30, 1977

Workshop Leader - The Helping Relationship: Communicating with Patients in Pain, Alabama Chapter Arthritis Foundation, May 20, 1977

Small Group Leader - APTA Section for Education Problem Solving: Philosophical Rationale and Theoretical Concepts, Orlando, FL, Feb. 7-10, 1978

Consultant/Workshop Leader - Department of Physical and Occupational Therapy, College of Physicians and Surgeons, Columbia University Developing Competency Based Clinical Ed., May 16-18, June 1-2, 1978

Speaker - Planning Learning Experiences, Rehabilitation of Cardiac Patients Training Institute, Occupational and Physical Therapy, Sargent College, Boston, University, June 9, 1978

Speaker - Competencies in Physical Therapy 54th Annual Conference APTA, Las Vegas, NV, June 1978

Speaker - Clinical Instruction in Physical Therapy New England Rehabilitation Center, Woburn, MA, December 1, 1978

Carol M. Davis
Curriculum Vita/May 1987
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Continuing
Education
Workshops
Conducted &
Organized
(continued)

Keynote Speaker/Consultant - The Role of Evaluation in Clinical Instruction. A Workshop for the Clinical Faculties of Northeastern Univ. Boston University and Simons College, April 20, 21, 1978

Speaker - The Role of PT in the Care of the Chronically Ill and Aging. Continuing Education Program, Massachusetts General Hospital, Boston, MA Oct. 31, 1978, Oct. 30, 1979, Oct. 21, 1980.

Workshop Leader - The Use of Learning Styles and Problem Solving to Enhance the Teaching Learning Process, College of St. Scholastica, Duluth, Minn, September 13-15, 1978

Workshop Leader - Designing Learning Experiences in Clinical Education, Ga. State University, Dept. of Physical Therapy, Respiratory Therapy, Nov. 20, 30, July 1, 1979

Workshop Leader - Learning Styles and Problem Solving in Clinical Teaching, VA Central Office, Washington, D.C. Occupational Therapist, April 1979
Detroit, Mich. Physical Therapist, June 1979,
Atlanta, Georgia.

Consultant/Speaker - Clinical Faculty Development: Affective Domain. Boston University/Sargent College, Dept. of Physical Therapy, May/June 1979.

Workshop Leader - Values Clarification in Clinical Instruction, Univ. of Florida, Dept. of Physical Therapy, Gainesville, FL, March 1979.

Consultant - Minnesota Competencies Consortium Planning for Use of Competencies in Physical Therapy practice and Education, February 1979, June 1979.

Guest Faculty - Designing Learning Experiences in Cardiac Rehabilitation Current Concepts in Cardiac Rehabilitation Mass. Rehabilitation Hospital and Sargent College, June 25-29, 1979.

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Speaker/Guest Faculty - "The Tension Inherent in Evaluating Higher Level Competencies in the Affective and Cognitive Domains" Teaching and Evaluating Higher Level Competencies. Dept. of Physical Therapy, Medical College of Georgia, Allied Health Training Institute for Physical and Occupational Therapists, Augusta, GA, March 10-14, 1980

Consultant/Guest Faculty - Wayne State University. Program in Physical Therapy - Humanizing the Physical Therapy Curriculum, September 1979, Phase I Throughout 1980, Phase II

Speaker/Group Facilitator - "Teaching in the Affective Domain-an Overview". Evaluating and Facilitating affective Behavior in the Clinic. Wayne State Univ. School of Pharmacy and Allied Health. April 9-11, 1980, Troy, Michigan

Speaker/Workshop Leader - "Territoriality in Physical Therapy - The Role of the Academic Educator in a Physical Therapy Clinic" The Physical Therapist as Educator, Northeast Region, Section for Education, January 18, 19, 1980, Hartford, CT.

Speaker - "Caring for the Caregiver" Patient and Clinician - Survival of the Fittest? Massachusetts Rehabilitation Hospital Symposium, March 27, 1980

Consultant - Humanistic Interdisciplinary Health Care Education Grant Medical University of South Carolina 1980-1981

Consultant - Dr. Solomon Carter Fuller Mental Health Center - Geriatric Mental Health Unit, Department of Mental Health, Commonwealth of Mass., 1981

Consultant - Lutheran Church in America, Project on Bio-Medical Ethics Appointed, November 1980

Speaker - Professional Burn-Out in Chronic Care Situations Department of Nursing Cardinal Cushing General Hospital Brockton, MA. Nov. 19, 1980

Speaker - Learning Styles in Clinical Education. Boston Clinical Educator's Consortium, December 1, 1980

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Speaker/Workshop Leader - Affective Education in the Clinical Setting. Texas Consortium for P.T. Clinical Education. Texas Women's University. March 26, 27, 1981

Speaker/Workshop Leader - Values Clarification and Clinical Practice. Department of Physiotherapy. The General Hospital. St. John's Newfoundland, Canada, February 9, 10, 1981

Consultant for Curriculum - Department of Physical Therapy, Univ. of Florida, Gainesville, FL., 1981

Speaker/Workshop Leader - Conjoint Clinical Faculty Development, Graduate Curriculum in PT, OT, Sargent College, Boston University, Feb. 26-27, 1981, Boston, MA.

Speaker - Problem Solving and Values. Clarification in Clinical Ed. Cedars of Lebanon Hospital, Rehabilitation Department, May 12, 14, 19, 1981, Miami, Florida

Speaker - Handling Stress as Health Care Professionals, Augusta, GA., OT's and PT's, June 3, 1981 - Medical College of Georgia

Speaker/workshop Leader - Clinical Education in Health Care: Process and Content - Miami Area Health Practitioners, Cedars of Lebanon Hospital, October 10, 11, 12, 1981.

Speaker - The Role of Health Practitioners, in Caring for the Terminally Ill and their families. St. John's Rehabilitation Center Lauderdale Lakes, Florida, November 1981

Speaker - Rights of the Patient and Practitioner. Conference on Cancer of the G.I. Tract. Cedars of Lebanon Health Care Center, Miami, FL. Nov. 1981

Speaker - Empathy in Physical Therapy Department of Physical Therapy South Miami Hospital, Miami, Florida November 1981.

Speaker - Physical Therapy for the Terminally Ill. Dept. of Family Medicine. The Medical School, Univ of Miami, November 20, 1981

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Speaker - Ethical Issues in Administration.
Curriculum in Physical Therapy, Florida Interna-
tional University - January 27, 1982

Speaker - Affective Aspects of Patient Care
Curriculum in Physical Therapy. University of Miami
Coral Gables, Florida Jan, Feb. 1982

Speaker - Role of the Physical Therapist in
Wholistic Health Delivery. South Dade Community
Health Center - Pedrrine, FL, Feb. 18, 1982

Speaker - Empathy and Death - The Common Experience
of Transcendence, Forum for Death Education and
Counseling, May 1, 1982

Speaker - Empathy in the Health Care Interaction
Dept. of Family Medicine - Univ. of Miami Medical
School. February 26, 1982

Speaker - Handling Negative Interactions. S. E.
District Florida P.T. Association March 9, 1982

Speaker - University of Miami Medical School, Women
Panel Discussion: Women Helping Women in the Work-
place - Sexism in Medicine and Health Care, May
1982

Speaker - Clinical Education Conference, University
of Miami - Florida International University Depts.
of Physical Therapy, Fall, 1982

Speaker - Immobility Problems in the Aged. Dept.
of Family Medicine. Univ. of Miami, July 19, 1982

Consultant and Speaker - Raising Consciousness in
the Care of the Terminally Ill. Oncology Team.
South Miami Hospital July/August 1982.

Speaker - Immobility Problems in the Elderly
International Medical Center, HMO Sept. 8, 1982

Speaker/Consultant - Roles in Physical Therapy.
Dept. of Physiotherapy. The General Hospital-St.
John's, Newfoundland, Canada Oct. 5-10, 1982

Keynote Speaker - Dade County Mental Health
Association-Conference on Aging - You and your
Aging Parent/Your Aging parent and You. Miami
November 13, 1982

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Speaker - Empathy as Transcendent Experience.
South Miami Lutheran Church, Nov. 20, 1982

Speaker/Workshop Leader - Affective Learning in
the Clinical Setting, Clinical Faculty Workshop
University of Miami, Dec. 3-5, 1982

Speaker/Workshop Leader - Evaluating Affective
Clinical Performance, Clinical Faculty Workshop
University of Evansville, IL, Feb. 5, 1983

Speaker/Workshop Leader - Clinical Education in the
Health Professions, 14 hour instructional workshop
Jackson Hospital Rehabilitation. University of
Miami, January - March 1983

Speaker/Student Advisor - Health Fair - Big Pine
Key-University of Miami Family Medicine, March 12,
1983

Speaker - Physical Therapy and Arthritis-Fla.
Chapter APTA for Selkirk Cable, March 11, 1983

Workshop Leader - Grandparents of Broken Families
Temple Nor Tamud, Miami Beach, Fl., Apr. 10, 1983

Workshop Leader - University of Miami Medical Women
Annual Conference - Increasing Self Esteem, April
16, 1983

Speaker - Intergenerational Communication Adlai
Stevenson Democratic Women, Apr. 7, 1983, Miami, FL

Graduation Speaker - Graduate Program in Physical
Therapy, Columbia Univ., New York, May 16, 1983

Consultant, Speaker - Faculty Interpersonal
Communication, Russell Sage Univ. Troy NY, May 1983

Workshop Leader - Teaching for Affective Competence
The Responsibilities of Faculty. Mohawk College,
Hamilton, Ontario, Canada, June 9-10, 1983

Workshop Leader - Evaluating Affective Clinical
Performance, Columbia University, Physical Therapy
Occupational Therapy, May 21, 22, 1983

Speaker - Physical Therapy - "Oiling Your Joints",
retirees of Park Villas Condo. Association, Miami,
Florida, April 1983

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Speaker - The Physical Therapist's Approach to
Stroke Rehabilitation - South Miami Hospital
Physicians, June 1, 1983

Process Consultant/Workshop Leader - Baptist
Hospital Rehabilitation Dept. Interdepartmental
Communication and Team Building. Monthly, March
1983 - April 1984

Speaker - Loneliness and Solitude - Being Elderly
Dade County Commission on the Status of Women, May
11, 1983

Speaker on Panel - The Ethical Dilemmas that
Patients with Acquired Immune Deficiency Syndrome
(AIDS) Present to Health Care Workers, Jackson
Memorial Hospital, July 29, 1983

Workshop Leader - The impact of Post Baccalaureate
Entry on Clinical Education in Physical Therapy -
University of Miami, Florida International Univ.
Clinical Faculty Conference, Dec. 2, 1983

Speaker - University of Miami Medical Women Student
Workshop. Dealing with Dying and Death, April 21,
1984

Workshop - Introduction to Clinical Education.
Fifteen hour course in four parts-Cedars of Lebanon
Department of Physical Therapy and Occupational
Therapy, May, 1984

Panel Speaker - The Dependent Elderly in Miami,
Channel 17 WLRN Educational TV, May 1, 1984

Speaker - Dealing with Loss-Loneliness and Solitude
Miami Jewish Home and Hospital for the Aged, June
27, 1984

Speaker - Enjoying Your Own Company - Empathy for
Oneself-Mental Health Association of Dade County,
July 19, 1984

Speaker - Toward a Philosophy of Interdisciplinary
The Willingness to Change Your Mind. VA Medical
Center-Management of Long Term Care of the
Geriatric Patient, August 21, 1984

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Graduation Speaker - Recognizing Essentials -
Toward a Foundational Ethic for Physical Therapy
Practice. University of Alabama in Birmingham,
August 24, 1984

Speaker - Wise Use of Physical Therapy-Non-Drug
Prescribing for Pain. Residency Program-Family
Medicine, University of Miami School of Medicine,
August 29, 1984

Graduation Speaker - Keeping the Balance. Dept. of
Physical Therapy, Simmons College, Dec. 16, 1984.

Speaker - Role of the Physical Therapist in Caring
for Victims of Alzheimer's Disease. APTA Mid
Winter Conference, Feb. 6, 1985, Orlando, Florida

Consultant for Curriculum - Simmons College, Dept.
of Physical Therapy, Post-baccalaureate curriculum
development, Spring 1985

Speaker, Workshop leader - Post-baccalaureate
level clinical education. Oakland University,
Rochester, Michigan, March 15-17, 1985.

Speaker, Workshop leader - Clinical Education for
the 1990's Texas Consortium for Physical Therapy
clinical education. Houston, TX, Mar. 29-30, 1985

Keynote Speaker - Eastern Illinois Chapter APTA
Education for the 1990's - Post-baccalaureate entry
May 4, 1985

Speaker, Workshop Leader - Boston Clinical
Educators Consortium. The Art and Science of
Clinical Education. May 23, 1985

Graduation Speaker - Department of Physical Therapy
University of Florida, Gainesville FL, Aug. 9, 1985

Speaker, Workshop Leader - Art and Science of
Clinical Education. Medical University of South
Carolina, Depts. of Physical and Occupational
Therapy. June 11-12, 1985. Charleston, SC

Consultant to Curriculum - Andrews University
Physical Therapy Program, Berrian Springs, MI.,
Fall 1985

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Speaker, Tour Guide - Tour to East Africa for Physical Therapists. October 6-20, 1985.
Professional Seminar Consultants

Speaker - Aging in America - The Role of the Physical Therapist in Caring for the Chronically Ill and Aging. Sept. 18, 1985, Bronx, New York; Sept. 19, 1985, Boston, MA.; Nov. 6, 1985, Buffalo, NY; Nov. 7, 1985, Albany, NY; Nov. 8, 1985, Syracuse, NY

Keynote Speaker - Implication for Change - Clinical Education Physical Therapy after 1990. Workshop for didactic and clinical faculties around the U.S. Rock Eagle, Georgia, October 28-31

Speaker - Women - Transcending Our Scripts Lutheran Church Woman Retreat. Sept. 21, 1985. Natick, MA.

Speaker, Workshop Leader - The Art and Science of Clinical Education. Holy Cross Hospital, Fort Lauderdale, Florida, January 25-26, 1986.

Speaker - Suffolk County Community College. Long Island, NY. Post-Baccalaureate Entry and It's Affect on the Role of the Physical Therapist Assistant. January 29, 1986

Speaker, Workshop Leader - Clinical Education Seminar, Loria and Goldfarb Associates, February 7-8, 1985, Boston, Massachusetts

Speaker, Workshop Leader - The Role of the P. T. in Caring for the Elderly - Aging in America. April 16, 1986, Long Island, April 17, 1986, Los Angeles, April 18, 1986, San Francisco.

Speaker - Massachusetts Chapter APTA district meeting. Professional Socialization in Physical Therapy Boston, Massachusetts, April 22, 1986

Workshop Leader, Speaker - Clinical Education Methods. Wisconsin Clinical Educators Conference, April 22, 1986

Speaker - NY Chapter APTA State Conference. Role of the Physical Therapist in Home Care for the Elderly May 2, 1986, Buffalo, New York

Speaker, Workshop Leader - Aging in America. June 2, 1986, Connecticut, June 3, 1986, New Jersey, June 4, 1986, Philadelphia

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Speaker/Workshop Leader - The Role of the Physical Therapist in Health Care. Continuing Education for Hospital Administrators and Physical Therapists. Omaha, Nebraska, July 11-12, 1986.

Speaker/Workshop Leader - Allied Services for the Handicapped, Scranton, PA., Sept. 6, 1986. Coping with Caring for the Elderly.

Graduation Speaker - Northwestern University, Physical Therapy Program, October 4, 1986, Chicago.

Speaker/Workshop Leader - Professional Socialization in Physical Therapy Education. Denver Consortium of Clinical Educators. Denver, Colorado, October 11-12, 1986.

Speaker/Workshop Leader - University of Oklahoma Physical and Occupational Therapists. Professional Socialization of Students. Nov. 13, 1986.

Speaker/Workshop Leader - Indiana University Clinical Faculty Conference. Indianapolis, March 13,14, 1987.

Speaker - Handicapped Awareness Day, Coral Springs Community Association. Coral Springs, Florida, May 7, 1987.

Speaker/Workshop Leader - Psychosocial Aspects of Caring for the Elderly - Beyond Golden Pond. Education Resource Associates, Boston, MA. June 19-20, 1987

Speaker - The Influence of Values on Decision Making in Patient Care. Boston University School of Nursing Rehabilitation Forum, April 21, 1987.

Speaker/Workshop Leader - Clinical Education - Innovative Methods in Clinical Teaching. U. S. Army Academy of Health Sciences, San Antonio, Texas, June 2, 3, 1987.

Speaker - Assertiveness Training for Physical Therapist. Dept. of Physical Therapy, Massachusetts General Hospital, June 10, 17, 1987

Speaker - The Role of the Physical Therapist with Confused Elderly Patient. Youville Hospital, Cambridge, Massachusetts, June 12, 1987.

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Speaker - Clinical Education Methods. Department
of Physical Therapy, Braintree Hospital, Braintree,
Massachusetts, June 16, 1987.

UNIVERSITY OF MIAMI
CURRICULUM VITAE

PART A: BIOGRAPHICAL INFORMATION

1. PERSONAL a. Date: June 1987
- b. Name: Edelle C. Field c. Phone-Home:
- d. Phone-Office: 284-4535 e. Address:
- 632 S.W. 8th Street
Hallandale, FL 33009
- f. Status: Full-time g. Current Rank:
- Instructor
- h. Citizenship: U.S.A.

2. HIGHER EDUCATION

University of Miami B.S. in Education
Cert. in Physical Therapy

3. POST DOCTORAL TRAINING

None

4. BOARD CERTIFICATION AND LICENSURES

Florida License #3971 - 1984 - present

5. PROFESSIONAL EXPERIENCE

- 5/84 - 3/85 Had accepted position at Sunrise Rehab. Hospital which opened behind schedule. Worked as per diem staff at various area acute care hospitals including:
- Mt. Sinai Medical Center
Humana Hospital Bennett
Florida Medical Center
Northridge General Hospital
United Cerebral Palsy, Broward
- 3/85 - 5/86 Staff Physical Therapist - Sunrise Rehabilitation Hospital. Case load including spinal cord injuries, extremity amputation, cerebrovascular accident, head trauma and various orthopedic dysfunctions. Assisted with program planning and establishment. Responsible for Spinal Cord Program and Spinal Cord Support Group.

testing.

Continuing Education

- "Spinal Mechanics and Muscle Energy"; Ufledger Institute, 2/87
- "Innovative and Controversial Strategies in Rehabilitation: Research and Practice"; University of Miami School of Medicine 12-86
- "Auto-Trac I"; Sandy Burkart, Ph.D., P.T.; 9-86
- "Interferential Current Therapy: An Advanced Method in the Management of Pain"; Samuel Davis, M.S.; 4/86
- "TJM Dysfunction and Head and Neck Pain"; Annette Iglorsh, Ph.D., P.T.; 2/86
- "Clinical Management of the Spinal Cord Injured Patient"; Humana Hospital Lucerne; 6/85
- "Restoration of Motor Function in the Spinal Cord Patient"; Ann Thorpe, P.T. and Margaret Johnstone, P.T.; 6/85
- "Use of Spinal Traction in the Treatment of Back and Neck Conditions"; H. Duane Saunders, P.T.; 6/84
- "Evaluation and Treatment of Cervical Spine Disorders Using Manual Techniques"; Paul Beatie, P.T.; 10/84
- "Physical Examination of the Spine and Extremities"; Stanley Hoppenfeld, M.D.; 4/83

Memberships

- American Physical Therapy Association - 1982 - Present
Research Section - 1984 - Present
- Florida Physical Therapy Association - 1982 - Present
Education Panel - 1983 - Present, Appointed Chairman 3/87
Program Planning Committee - 1983 - Present
Councilman-at-Large - Appointed 3/87
Newsletter Committee - 1986 - Present
- Phi Kappa Phi Honor Society - 1983 - Present
- Golden Key Honor Society - 1982 - Present

13. COMMUNITY SERVICE

Greenpeace volunteer

PART B. BIBLIOGRAPHY

1. SCIENTIFIC ARTICLES IN REFEREED JOURNALS

None

2. BOOKS AND BOOK CHAPTERS

None

3. PUBLISHED ABSTRACTS

None

4. OTHER PROFESSIONAL ITEMS

"A Comporative Study of Two-Point Discrimination on the Right vs Left Sides of the Body" presented at 1986 Annual APTA Conference, Chicago, IL, 6/12/86

Date: August 1987

PERSONAL

Name: Robert S. Gailey, Jr., M.S., P.T. Home Phone: (305) 279-8363

Office Phone: (305) 284-4535

Home Address: 10863 S.W. 88th Street, #444, Miami,, FL 33176

Employment Status: Full Time

Current Rank: Assistant Professor

Primary Dept: Res. & Grad.
Studies

Citizenship: USA

HIGHER EDUCATION

Institutional:

University of Miami, Bachelor of Science in Education with
Certificate in Physical Therapy, May 1982

University of Miami, M.Ed., 1986

Non-Institutional Training:

Cyriax Orthopaedic Evaluation

Soft Tissue Mobilization

Cybex Seminaar

Bobath Neurologic Treatment Techniques

105 separate clinically related continuing education courses

Atlanta Dogwood Conference, 1982 and 1985

Certification and Licensure:

Physical Therapy, Florida

EXPERIENCE

Instructional:

Anatomy Lab Assistant - University of Miami School of Medicine
April 1980 - August 1980

Adjunct Faculty - University of Miami Program in Physical Therapy
1984 - 1985

Assistant Professor - University of Miami Program in Physical
Therapy, August 1986

Professional:

Physical Therapy Aide - Doctor's Hospital, Coral Gables, FL
1980 - 1981

Staff Physical Therapist - Jackson Memorial Hospital, Miami, FL
Areas of Involvement: orthopaedic and sports medicine,
spinal cord injuries, neurological rehabilitation, burn
unit, amputee and hand rehabilitation
1982 - 1985

Director of Sports Medicine - Miami Rehabilitation Institute,
Coral Gables, FL, June 1985 - February 1986

Senior Physical Therapist - Cedars of Lebanon Hospital,
Miami, FL, February 1986 - August 1986

PROFESSIONAL AND HONORARY ORGANIZATIONS

American Physical Therapy Association

OTHER PROFESSIONAL INFORMATION OR ACTIVITIES

Continuing Education Workshops Conducted:

Functional Shoulder Application, Jackson Memorial Hospital, 1983

Anatomy Review, Jackson Memorial Hospital, May 1984

Extremity Mobilization, Jackson Memorial Hospital, May 1984

COMMUNITY ACTIVITIES

President: Achilles Track Club South (an athletic program for the
physically challenged)

Vice President: Miami Runner's Club

PUBLICATIONS

(Abstracts)

"The Contoured Adducted Trochanteric-Controlled Alignment (CAT-CAM)
Prosthesis, JAPTA, May, 1987, Vol. 67, No. 5., (Abstract)

(Workbooks, Syllaabi):

"Analysis of Normal Human Motion - Course Outline and Syllabus".
University of Miami, Fall 1987, 100 pp

"Therapeutic Exercise II-Course Outline and Syllabus".
University of Miami, Fall 1987, 47 pp

CURRENT TEACHING RESPONSIBILITIES-PROGRAM IN PHYSICAL THERAPY

Summer Sessions I	531 Gross Anatomy I (Lab Assistant)
Summer Session II	532 Gross Anatomy II (Lab Assistant)
Fall Semester	572 Analysis of Normal Motion 626 Therapeutic Exercise II
Spring Semester	574 Analysis of Abnormal Motion 627 Therapeutic Exercise III

Date: August 1987

PERSONAL

Name: Sherrill Howarth Hayes, M.S. P.T.

Home Address: 11202 S.W. 72nd Avenue, Miami, FL 33156

Home Phone: (305) 251-7605 Office Phone: (305) 284-4535

Employment Status: Full Time

Academic Rank: Associate Professor Primary Dept: Res. & Grad
Studies

Citizenship: USA

HIGHER EDUCATION

Institutional:

University of Connecticut, Storrs, Ct., B.S. in Physical
Therapy, 1970

Centro-Venezolano Americano, Caaracas, Venezuela, Spanish
Certificate of Fluency - Written-Spoken, May 1972

University of Connecticut, Storrs, Ct., M.S. Allied Health
Education with emphasis in Neurological Dysfunction, 1982

University of Connecticut Medical School, MEDS 305, Central
Nervous System Committee, Fall 1981

University of Miami, Coral Gables, FL, School of Education
and Allied Professions, Teaching and Learning, Doctoral
Candidate

Non-Institutional Training:

"Functional Neurology", UConn Continuing Education Course

"Adaptive Equipment for Multiply-Handicapped Children"
NICEED, University of Bridgeport, CT

"Neurodevelopmental Training - Adult Hemiplegia",
Burke Rehabilitation Center, White Plains, NY

"Clinical EMG - Biofeedback Training Course",
Emory University, Atlanta, GA

"Care and Rehabilitation of the Burn Patient",
New York Hospital-Cornell Medical Center, New York, NY

"Neurology for Rehabilitation Personnel" (I and II)
Tufts University School of Medicine, Boston, MA

"Clinical Considerations in Geriatrics",
Hartford Hospital, Hartford, CT

"Cognitive Training of the Adult Head Trauma Patient",
Rancho Los Amigos staff, Hartford, CT

"Coordinative Processes - Motor Learning",
Columbia University School of Education, New York, NY

"Symposium on Gerontology - The Challenge of the Future",
UConn School of Medicine, Farmington, CT

"The Multidisciplinary Approach to the Care of the Stroke Pt",
American Heart Association of Greater Hartford, CT

"Clinical Hemispheric Specialization - Aphasia, Agnosia, Apraxia"
American Heart Association of Greater Haartford, CT

"Motor Control", Short Course Offering, APTA National Conf.,
Kansas City, KS

"Clinical Biofeedback and Research Implications",
Institute for the Crippled and Disabled, New York, NY

"Controversial and Innovative Strategies in Rehabilitation
Medicine", University of Miami Medical School, Miami, FL

"Motor Learning - Developmental Aspects", Columbia University,
Boston, MA

"Accreditation Workshop for Academic Administrators of Physical
Therapy Educational Program", APTA Department of Education,
Atlanta, GA

Certification and Licensure:

Registered Physical Therapist
Connecticut # 2221
New York # 3111
Florida # 4973

EXPERIENCE

Instructional:

Lecturer - University of Connecticut, Storrs, Ct.,
September 1982 - December 1982

Assistant Professor - University of Connecticut, Storrs, Ct.,
January 1983 - May 1985

Associate Professor - University of Miami, Coral Gables, FL,
June 1985 - Present

Interim Director, Program in Physical Therapy, Univ. of Miami,
Coral Gables, FL, October 1985 - Present

Professional:

Staff Physical Therapist
Columbia-Presbyterian Medical Center
New York City, NY
September, 1970 - January, 1972

Staff Physical Therapist, Neurological Consultant
Instituto-Medico La Floresta
Caracas, Venezuela
March, 1972 - January, 1973

Staff Physical Therapist, Consultant, Translator, Instructor
Hospital San Juan de Dios
Caracas, Venezuela
May, 1972 - April, 1973

Private Physical Therapist
Grupo Cisneros
Caracas, Venezuela
August, 1973 - May, 1975

Consultant in Physical Therapy, Lamaze Instructor
Oranjestad Hospital
Aruba, Netherlands Antilles
June, 1975 - November, 1976

Assistant Supervisor, Physical Therapy
Hartford Easter Seals Rehabilitation Center
Hartford, CT
March, 1977 - December, 1977

Staff Physical Therapist, Neurological Specialist
Hartford Hospital
Hartford, CT
January, 1978 - March, 1985

Partner, Owner
Valley Rehabilitation Center
Simsbury, CT
Oct, 1984 - May, 1985

MEMBERSHIP IN SCIENTIFIC/PROFESSIONAL/HONORARY SOCIETIES:

American Physical Therapy Association - Member
APTA - Section on Neurology - Member
APTA - Section on Education - Member
APTA - Section on Geriatrics - Member
APTA - Section on Obstetrics/Gynecology - Member

American Society of Allied Health Professionals - Member
1983-86

POSITIONS HELD IN SCIENTIFIC/PROFESSIONAL/HONORARY SOCIETIES:

APTA - Connecticut Chapter - Treasurer, BOD
1983 - 1985

Florida Physical Therapy Association (FPTA)
Nominating Committee, Southeast District
1986 - Present

CONSULTATIVE AND ADVISORY POSITIONS HELD:

Neurological Physical Therapy Consultant:
Hartford Hospital, Hartford Connecticut
American Heart Association of Greater Hartford, Inc.

COMMUNITY ACTIVITIES:

Co-Chairperson, Stroke Committee
American Heart Association of Greater Hartford, Inc.
1978 - 1985

Board of Directors
American Heart Association of Greater Hartford, Inc.
1984 - 1985

Program Committee
American Heart Association of Greater Hartford, Inc.
1982 - 1985

Patron
Friends of the Hill-stead Museum, Farmington, CT
1982 - 1985

Patron
Children's Museum of Science
Miami, FL
1985 - present

PUBLICATIONS: (Abstracts):

"Early Intervention Care in the Acute Stroke Patient - Measurement of Outcome and Length of Stay", Journal of the American Physical Therapy Association, May, 1983, Vol. 63, No. 5., (Abstract)

"Rationale for the Use of 'Cortical Training' in the Treatment of Parkinsonism", Neurology Report, APTA, Winter, 1984, Vol. 8, No. 2., (Abstract)

"Sexuality and Disability - Knowledge and Attitudes of Physical Therapy Students", Physical Therapy Education, 1985. (Accepted to be published)

"The CAT Scan - Structure and Function in the CNS", JAPTA, May, 1985, Vol. 65, No. 5., (Abstract)

"Model for a Cooperative University-Community Athletic Screening Program," JAPTA, May, 1985, Vol. 65, No. 5., (Abstract)

"The Contoured Adducted Trochanteric-Controlled Alignment (CAT-CAM) Prosthesis, JAPTA, May, 1987, Vol. 67, No. 5., (Abstract)

"Physical Therapy Management in Meningococemia and Disseminated Intravascular Coagulation," JAPTA, May, 1987, Vol. 67, No. 5., (Abstract)

(Juried Journals):

"Early Intervention Care in the Acute Stroke Patient," Archives of Phys Med & Rehab, Vol. 67, May, 1986.

"Beyond Golden Pond - Physical Fitness for the Elderly," Journal of Health Promotion/Disease Prevention, Vol. 2, No. 2, Winter, 1985.

(Workbooks, Syllabi):

"Problems in Patient Care II - Course Syllabus", University of Connecticut, Fall, 1983, 198 pp.

"Clinical Arts III - Course Outline and Syllabus", University of Connecticut, Spring, 1984; Revised, Fall, 1984, 440 pp.

"Prosthetics and Orthotics - Course Outline and Syllabus," University of Miami, Fall, 1986, 310 pp.

"Neuroanatomy - Course Outline and Syllabus," University of Miami, Fall, 1986; Revised, Fall, 1987, 168 pp.

"Neurophysiology - Course Outline and Syllabus," University of

Miami, Spring, 1987; 180 pp.

SCIENTIFIC AND PROFESSIONAL PRESENTATIONS:

"The Quasi-Experimental Method in Rehabilitation Research"
UConn SAHP, Graduate School course AH 306, "Research
Methods in Allied Health"
March, 1982

"Stroke Rehabilitation"
Manchester Community College, Course on "Health and Aging"
October, 1983

"Nature of Stroke"
Prospect Hill Nursing Center, Windsor, CT
March, 1984

"Deficits with Stroke - Hemispheric Specialization"
Prospect Hill Nursing Center, Windsor, CT
March, 1984

"Early Intervention Care and the Acute Stroke Patient -
Research Findings and Future Implications"
Symposium in Allied Health, UConn SAHP,
April, 1983

"Early Intervention Care and the Acute Stroke Patient -
Measurement of Outcome and Length of Stay"
APTA National Convention, Kansas City, KS
May, 1983

"Rationale for 'Cortical Training' in the Treatment of
Parkinsonism"
APTA Mid-Winter Conference, Houston, TX
February, 1984

"CAT Scans - Visualization of the Brain"
Colloquium Series, UConn SAHP
March, 1984

"Sexuality and Disability - Attitudes and Knowledge of Physical
Therapy Students"
APTA National Convention, Las Vegas, NV
May, 1984

"Agnosia"
Clinical Hemispheric Specialization Symposium
American Heart Association of Greater Hartford, Inc.
May, 1984

"Prevention of Stroke - Know the Warning Signs"
Stroke Awareness Week, AHA, Radio Interview, WKND Hartford
May, 1984

"The CAT Scan - Structure and Function in the CNS"
APTA National Convention, New Orleans, LA
May, 1985

"Model for a Cooperative University-Community Athletic Screening
Program"
APTA National Convention, New Orleans, LA
May, 1985

"Grey Matter, White Matter - What Does It Matter? An Integrated
Approach to CNS Dysfunction"
Connecticut Chapter, APTA, Spring Conference, Cromwell, CT
May, 1985

"Grey Matter, White Matter - what Does It Matter? - Practical
Applications of Neuroanatomy," FPTA Fall Educational Conference,
Orlando, FL, September, 1986.

"The Entry Level Master's Program at the University of Miami -
Implication for Clinical Education," Clinical Coordinators Forum
of Dade/Broward Counties, April, 1987.

"Sexuality and Disability - Stroke, Parkinson's, Arthritis and
Degenerative Joint Disease," In-service to Rehabilitation staff
of AMI/Parkway Hospital, April, 1987.

HONORS AND AWARDS:

Dean's Student Leadership Award, UConn School of Allied Health
Professions, November, 1982, Graduate Student Recipient

High Merit Award for Excellence in Teaching, UCONN, Storrs, CT
1983, 1984, 1985

Alpha Eta, National Honor Society for Allied Health
Professionals, Connecticut Chapter, inducted May, 1986

High Merit Award for Excellence in Teaching, University of
Miami, School of Education and Allied Professions, 1986

CONTINUING EDUCATION WORKSHOPS CONDUCTED/ORGANIZED:

Symposium on Stroke, AHA, "Multidisciplinary Approach to the
Care of the Stroke Patient"

Symposium on Stroke, AHA, "Clinical Hemispheric Specialization"

"Sexuality and Disability", Worcester Memorial Hospital, MA.

"Sexuality and Disability", Mount Sinai Hospital, Hartford, CT
"Sexuality and Disability", Hartford Hospital, Hartford, CT
"Spasticity - Neurophysiology and a Rationale for Treatment",
Neurological Special Interest Group, CT
"Parkinson's Disease - Pathophysiology and a Rationale for
Treatment", Neurological Special Interest Group, CT
"CAT Scans - Present and Future Implications", Neurological
Special Interest Group, CT
"Amytrophic Lateral Sclerosis", Neurological Special Interest
Group, CT
"Multiple Sclerosis - Pathology and Clinical Features",
Neurological Special Interest Group, CT
"Neuroanatomy - Structure and Function"
Hartford Hospital Staff In-service, Hartford, CT
"NDT Approach to the Adult Patient with TBI"
Neurological Special Interest Group, CT
"Structure and Function in the CNS"
Yale-New Haven Hospital Department of Rehabilitation
In-service presentation, New Haven, CT
"Referral for Profit Situations - Implications for Physical
Therapy Education and Practice"
FPTA Spring Conference, Miami, FL
Moderator

GRANT ACTIVITY:

Research Committee, Hartford Hospital, Grant # 1056
"Early Intervention Care in the Acute Stroke Patient -
Measurement of Outcome and Length of Stay"
Principal Investigator
No funding - Approval only sought
Retrospective Medical Record Chart Review for Early Intervention
Care Research of Efficacy

University of Connecticut Research Foundation
Principal Investigator
"Sexuality and Disability - Knowledge and Attitudes of Physical
Therapy Students"
Award: \$ 350.00

University of Connecticut Research Foundation
Principal Investigator
"Comparison of Energy Expenditure and Gait Analysis of a T-4
Paraplegic using Standard KAFO's vs. Craig-Scott Orthoses"
Award: \$ 1000.00

University of Connecticut Research Foundation
Co-investigator, J. Spangenberg
"The Effect of Exercise on the Insulin-Dependent Diabetic"
Award: \$ 500.00

University of Connecticut Research Foundation
Co-investigator, J. Javens
"The Use of Visual Imagery in Physical Rehabilitation"
Award: \$ 200.00

SERVICES TO THE UNIVERSITY/COLLEGE/SCHOOL ON COMMITTEES/COUNCILS
COMMISSIONS:

University of Connecticut:

SAHP Curriculum and Courses Committee - Member
1982 - 1983

SAHP - Gerontology Task Force - Member
1982 - 1983

SAHP - Housing, Transportation, Parking Committee - Chair
Task Force on Relocation of the Schools of Allied Health and
Nursing
1984

SAHP - Fran Tappan Scholarship Committee - member
1983 - 1985

SAHP - Department of Physical Therapy, Post-Baccalaureate
Curriculum, Committee on Competencies and Committee
on Objectives - member
1984

University of Miami School of Education and Allied Professions
Scholarship Committee - member
1985

University of Miami School of Education and Allied Professions
Physical Plant and Finance Committee for Self-Study
1985 - 1986

JOINT OR SECONDARY APPOINTMENT IN OTHER SCHOOLS:

TEACHING SERVICES IN OTHER SCHOOLS/DEPARTMENTS:

CURRENT TEACHING RESPONSIBILITIES IN THE PHYSICAL THERAPY PROGRAM:

Interim Director - Administrative Duties; Teaching Duties:

Courses: Fall, 1987 - PTS 540 Neuroanatomy
Spring, 1988 - PTS 541 Neurophysiology

Date: June 1986

PERSONAL

Name: Michael L. Voight, MED, PT, ATC

Home Phone: (305) 435-4020

Office Phone: (305) 284-4535

Home Address: 8650 N.W. 7th Court, Pembroke Pines, FL 33024

Employment Status: Part Time

Academic Rank: Assistant Professor Primary Department: Res. &
Grad. Stud.

Citizenship: USA

HIGHER EDUCATION

Institutional:

University of Oregon, Eugene, Or., General study in the area of
health and athletic training

Portland State University, Portland, OR, B.S. with major in
Health Education and minor in Athletic Training 1981

University of Virginia, Charlottesville, VA., M. Ed. with major
in Sportsmedicine 1982

Hahnemann Medical School, Philadelphia, PA, Certificate of
Proficiency in Physical Therapy 1983

Certification and Licensure:

Licensed Physical Therapist: Pennsylvania, Oregon, Florida

Certified Athletic Trainer

Certified Member of National Registry of Emergency Medical
Technicians

EXPERIENCE

Instructional:

Assistant Professor, University of Miami Program in Physical Therapy,
Miami, FL, 1985 - Present

Guest Lecturer, Southeastern College of Osteopathic Medicine, Miami, FL, 1984 - Present

Professional:

Director of Athletic Training Services, North Pacific Sportsmedicine Foundation, Portland, OR, September 1979 - June 1981

Head Athletic Trainer, Randolph Macon College, Ashland, VA
August 1981 - January 1982

Athletic Trainer, Henrico Institute of Sports Physical Therapy, Richmond, VA., December 1981 - May 1982

Physical Therapist/Athletic Trainer, Methodist Hospital Sportsmedicine Center, Philadelphia, PA
June 1983 - August 1983

Staff P.T./ATC, United States Olympic Committee, Sportsmedicine Division, Training Center Colorado Springs, CO
Summer 1983

Physical Therapist/Athletic Trainer, Philadelphia Eagles Football Club, Philadelphia, PA., August 1983 - January 1984

Director of Medical Services, Pan American Weightlifting Championships and American Cup, Miami, FL, Fall 1985

Staff P.T./ATC, United States Olympic Committee, Sportsmedicine Division, National Sports Festival, Baton Rouge, La
Summer 1985

Director of Medical Services, NBC Superstars Competition, Key Biscayne, FL, Spring 1985 and 1986

Director of Sportsmedicine and Clinical Education, S.P.O.R.T., Miami, FL, January 1984 - Present

Head Athletic Trainer, St. Thomas University, Miami, FL,
May 1984 - Present

Head Athletic Trainer/Physical Therapist, Miami Beach Breakers Professional Tennis Team, Miami, FL
May 1985 - Present

PUBLICATIONS

Reduction of Post Traumatic Ankle Edema with High Voltage Galvanic Stimulation. Athletic Training: Volume 19 (4): 278, 1984

PROFESSIONAL ORGANIZATIONS

Active Member - American Physical Therapy Association

Member - Speciality Sections: Orthopedics and Sports Physical Therapy

Member - Florida Physical Therapy Association

Member - Oregon Physical Therapy Association

Certified Member - National Registry of Emergency Medical Technicians

Member - American College of Sportsmedicine

Professional Member - National Strength Coaches Association

OTHER PROFESSIONAL ACTIVITIES

Member of Central Advisory Board, Dade Community College Wellness Center, Miami, FL, May 1985 - Present

Editorial Board Member, Journal of the Athletic Training Assoc. December 1985 - Present

Counsel Member, Broward County Counsel on Physical Fitness and Sports, Ft. Lauderdale, FL, January 1986 - Present

CURRENT TEACHING RESPONSIBILITIES-PROGRAM IN PHYSICAL THERAPY

Summer Semester 530 Foundations of Physical Therapy

Fall Semester 574 Orthopedics I

Spring Semester 573 Analysis of Abnormal Motion

PERMANENT FACULTY - OTHER DEPARTMENTS

Alphabetical Listing:

Brucker, Bernard S. - Dept. of Ortho/Rehab, Neurosurgery
Clark, Ronald G. - Dept. of Anatomy and Cell Biology
Goldberg, Stephen - Dept. of Anatomy and Cell Biology
Masin, Helen L. - Dept. of Pediatrics
Perry, Arlette C. - Dept. of Exer. Science and Sport Studies
Waggoner, Philip R. - Dept. of Anatomy and Cell Biology

UNIVERSITY OF MIAMI

Curriculum Vitae
Standard Format

PART A: BIOGRAPHICAL INFORMATION Original _____ Supplemental X

1. PERSONAL " a. Date: 8/1/85
b. Name: Bernard S. Brucker c. Phone - Home (305) 763-5030 d. Phone - Office (305) 549-
e. Address (home) P.O. Box 21846 f. Status: Full-Time X Part-Time _____
Ft. Lauderdale, FL 33335
g. Current Rank: Associate Professor h. Citizenship U.S.A. i. Visa Type: N/A

2. HIGHER EDUCATION

New York University, New York
Counseling Psychology: Ph.D., 1977

Eastern New Mexico University,
Portales, New Mexico
Psychology: M.A., 1969

Monmouth College,
West Long Branch, New Jersey
Psychology: A.A., B.A., 1968

3. POST DOCTORAL TRAINING

NONE

4. BOARD CERTIFICATIONS AND LICENSURES

Certified Psychologist State of New York, 1980
Licensed Psychologist State of Florida, 1982

5. PROFESSIONAL EXPERIENCES

Eastern New Mexico University
Portales, New Mexico
Lecturer
June 1969 - Aug. 1969

Eastern New Mexico University
Portales, New Mexico
Internship
June 1968 - Aug. 1969

New York University Medical Center
New York
Assistant Research Scientist
Oct. 1969 - July 1970

Queens College
New York
Adjunct Lecturer in Psychology
Jan. 1972 - Jan. 1973

New York University Medical Center
New York
Assistant Psychologist
Aug. 1970 - June 1973

New York University, New York
Supervisor, Master's Counseling
Practicum
Feb. 1974 - Jan. 1975

Department of Rehabilitation Medicine
Goldwater Memorial Hospital
New York
Staff Psychologist
July 1973 - Sept. 1977

New York University, New York
Adjunct Assistant Professor
Jan. 1978 - June 1980

Private Practice
New York
Research Consultant
Feb. 1973 - March 1981

Private Practice
New York
Psychotherapist
June 1978 - March 1981

Department of Rehabilitation Medicine
Goldwater Memorial Hospital
New York
Senior Psychologist
Director of the Biofeedback Laboratory
Sept. 1977 - March 1981

The Rockefeller University
New York
Adjunct Research Associate
December 1977 - present

Department of Psychology
University of Miami
Miami, Florida
Assistant Professor
June 1981 - June 1984
Associate Professor
June 1984 - Present

The Rehabilitation Center
Jackson Memorial Hospital
Miami, Florida
Chief of the Rehabilitation Psychology Department
April 1981 - Present

V.A. Medical Center
Miami, Florida
Research Health Scientist
May 1985 - Present

Department of Psychiatry
University of Miami School of Medicine
Miami, Florida
Assistant Professor
April 1981 - June 1984
Associate Professor
June 1984 - Present

Department of Neurological Surgery
Associate Professor
July 1984 - Present

Department of Orthopaedics & Rehabilitation
University of Miami School of Medicine
Miami, Florida
Assistant Professor
April 1981 - June 1984
Associate Professor
June 1984 - Present
Director of the Biofeedback Research Laboratory
April 1981 - Present

6. CURRENT AND PAST TEACHING RESPONSIBILITIES
CURRENT:

In-service training on Behavioral Medicine in Rehabilitation to
Physical Therapists, Occupational Therapists, Psychologists, Social Workers
and Nurses at the Rehabilitation Center, Jackson Memorial Hospital.
April 1981 - present

Supervision of practicum training on Behavioral Medicine for graduate
students in Psychology and Bio-medical Engineering, University of Miami.
April 1981 - present.

Psychology Graduate course on Behavioral Medicine Applications, Nova
University
January 1984 - present.

Supervision Psychology Interns and Post-doctoral Fellows, Rehabili-
tation Psychology Department, University of Miami/Jackson Medical Center.
March 1982 - Present

Other Committee Members: Dr. Jack Croghan
Dr. Robert Simpson
Dr. Thomas Natiello
Dr. Robert Gropper
Dr. Terry Froman

Dissertation completed June 1983

Member, Dissertation Committee

"The effect of one channel and two channel EMG feedback on upper extremity function compared to a no-feedback occupational therapy control."

Student: David Schwartz
Department: Graduate Psychology
University of Miami

Other Committee Members: Dr. Neil Schniederman
Dr. Kathy Greene

Dissertation completed July 1983.

8. GRANTS RECEIVED WITHIN PAST FIVE YEARS (Principal Investigator)

Organization: The Robert Wood Johnson Foundation
Title: The effect of biofeedback and functional electrical stimulation in the restoration of function in persons with incomplete spinal cord injury.
Principal Investigator: Bernard S. Brucker, Ph.D.
Co-investigators: Myron Goldberg, Ph.D.
Frank Eismont, M.D.
Budget: \$128,147.05
Year: 1984 - 1986

Organization: Veterans Administration
Title: The use of EMG Biofeedback and functional electrical stimulation in spinal cord injury.
Co-principal Investigators: Barth A. Green, M.D.
Bernard S. Brucker, Ph.D.
Co-investigators: Newton McCollough, III, M.D.
Frank Eismont, M.D.
Myron Goldberg, Ph.D.
Marilyn Wells, M.D.
Budget: \$320,600
Year: 1985 - 1987

9. DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Director of the Biofeedback Laboratory
Department of Orthopaedics and Rehabilitation

Chief of the Rehabilitation Psychology Department
The Rehabilitation Center
Jackson Memorial Hospital

Member, Residency Selection Committee
Department of Orthopaedics & Rehabilitation

10. EXTRA-DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Member, Policy Committee
Rehabilitation Center
Jackson Memorial Hospital

Member, Documentation Committee
Rehabilitation Center
Jackson Memorial Hospital

11. HONORS AND AWARDS

a. Visiting professorships

Mapfre Rehabilitation Center, Madrid, Spain, May 28-30, 1981
Craig Rehabilitation Hospital, Denver, Colorado, March 18-19, 1983
Nova University, Fort Lauderdale, Florida, April 14, 1983
South Miami Hospital, Miami, Florida, June 15, 1983
Lucerne Spinal Injury Center, Orlando, Florida, June 19, 1985.

b. Scientific presentations at national and international meetings

Halberstam, J. L., Zaretsky, H. H., Brucker, B. S., and Guttman, A. R. Instrumental conditioning as a function of aging and brain damage. Implications for rehabilitation medicine. Paper presented at the annual meeting of the American Congress of Rehabilitation Medicine, New York, August 19, 1970.

Zaretsky, H. H., Brucker, B. S., Guttman A. R., and Mete, J. Reaction time performance as a function of task difficulty, age, and brain damage. Paper presented at the annual meeting of the American Congress of Rehabilitation Medicine, San Juan, Puerto Rico, November 10, 1971.

Wasson, R., Kagan, L., and Brucker, B. S. Interpersonal skill training: a demonstration. Presented at the Counselor Education Seminar, Annual Education Alumni Conference, New York University, New York, March 8, 1975

Brucker, B. S., Dworkin, B. R., Eisenberg, L., Miller, N. E., and Pickering, T. G. Learned voluntary control of diastolic pressure, and circulatory effects of attempted muscle contraction in several paralyzed patients. Paper presented at the Oxford Meeting of the Physiological Society, Oxford, England, July 19, 1975.

- Ince, L. P., Brucker, B. S., and Alba, A. Reinstatement of bladder control in patients with spinal cord injuries through conditioning procedures. Presented at the Annual Meeting of the American Congress of Rehabilitation Medicine, Atlanta, Georgia, November 18, 1975.
- Brucker, B. S., and Ince, L. P. The clinical application of biofeedback techniques as treatment for postural hypotension in a spinal cord lision patient. Presented at the Annual Meeting of the American Congress of Rehabilitation Medicine, Atlanta, Georgia, November 18, 1975.
- Pickering, T. G., Brucker, B., Frankel, H. L., Mathias, C. J., Dworkin, B. R., and Miller, N. E. Mechanisms of learned voluntary control of blood pressure in patient with generalized bodily paralysis. Paper presented at the NATO Symposium on Biofeedback and Behaviorism, Munich, July 23, 1976.
- Brucker, B. S., Ince, L. P., Pickering, T., Miller, N. E., and Zaretsky, H. H. Learned voluntary control of blood pressure as a treatment for postural hypotension in spinal cord injury patients. Presented at the Annual Meeting of Biofeedback Society, Orlando, Florida, March 8, 1977.
- Ince, L. P., Brucker, B. S., and Alba, A. Reflex conditioning below the lesion in spinal cord injured humans. Presented at the American Psychological Association Convention, San Francisco, August 28, 1977.
- Brucker, B. S., Ince, L. P., Pickering, T. G., Miller, N. E., and Zaretsky, H. H. Learned voluntary blood pressure increases by spinal cord injury patients. Presented at the American Psychological Association Convention, San Francisco, August 28, 1977.
- Brucker, B. S. What the counselor and counseling psychologist should know about biofeedback. Invite address, Counselor Education Seminar, Annual Education Alumni Conference, New York University, New York, March 10, 1979.
- Brucker, B. S. Biofeedback applications for the treatment of pain. Presented at Low Back '79, Human Resources Center, Albertson, New York, March 20, 1979
- Brucker, B. S. Blood pressure biofeedback for hypotension resulting from spinal cord injuries. In, L. P. Ince (Chair). Symposium: Biofeedback application in rehabilitation. Presented at the American Psychological Association Convention, New York, September 3, 1979.

- Silver, M. S., Brucker, B. S., McNamara, R. A multi-base approach to the anarthric person. Presented at The New York State Speech and Hearing Association Convention, Monticello, New York, April 22, 1980.
- Brucker, B. S. Behavioral applications in rehabilitation medicine. Chairman, invite symposium presented at the biofeedback Society of American Annual Meeting, Louisville, Kentucky, March 16, 1981.
- Brucker, B. S. Learned control of blood pressure and its therapeutic implications for Rehabilitation. Presented at the Biofeedback Society of American Annual Meeting, Louisville, Kentucky, March 16, 1981.
- Brucker, B. S. Control of blood pressure in spinal cord injury by biofeedback mechanisms. Presented at the 25th National Rehabilitation Conference, Hollywood, Florida, July 6, 1981.
- Brucker, B. S. Biofeedback applications for stroke patients. Presented at the 25th National Rehabilitation Conference, Hollywood, Florida, July 7, 1981.
- Brucker, B. S. Future trends in behavioral medicine: Application to rehabilitation. Chairman, invited symposium presented at the American Psychological Association Annual Meeting, Los Angeles, California, August 26, 1981.
- Brucker, B. S. The behavioral medicine laboratory: Its possible future role in rehabilitation. Presented at the American Psychological Association Annual Meeting, Los Angeles, California, August 26, 1981.
- Brucker, B. S. Conditioning and biofeedback: Families and children. Chairman, poster session presented at the American Psychological Association Annual Meeting, Los Angeles, California, August 27, 1981.
- Brucker, B. S., and Fordyce, W. Behavioral Medicine and Rehabilitation Psychology: Natural partners. Presented at the American Psychological Association Convention, Washington, D. C., August 24, 1982.
- Brucker, B. S., and Miller, W. E. State of the arts workshop on biofeedback application in sports medicine. Co-Chairmen, presented by the American Orthopaedic Society for Sports Medicine, Bal Harbour, Florida, December 3, 4, and 5, 1982.

- Brucker, B. S. History, theory, and applications of biofeedback. Presented at the State of the Arts Workshop on Biofeedback applications in Sports Medicine, Bal Harbour, Florida, December 5, 1982.
- Brucker, B. S. Biofeedback instrumentation. Presented at the State of the Arts Workshop on Biofeedback applications in Sports Medicine, Bal Harbour, Florida, December 5, 1982.
- Brucker, B. S. Treatment of sports injuries with biofeedback techniques. Presented at the State of the Arts Workshop on biofeedback applications in Sports Medicine, Bal Harbour, Florida, December 5, 1982.
- Brucker, B. S. Biofeedback: Theory and instrumentation. Presented at the New technology in orthopaedics and rehabilitation post graduate course, Bal Harbour, Florida, December 6, 1982.
- Brucker, B. S. Applications of biofeedback in orthopaedic rehabilitation. Presented at the New technology in orthopaedics and rehabilitation post graduate course, Bal Harbour, Florida, December 6, 1982.
- Brucker, B. S. Measurement of motor unit potentials in evaluation of recovery of nerve root function. Presented at the New technology in orthopaedics and rehabilitation post graduate course, Bal Harbour, Florida, December 7, 1982.
- Brucker, B. S. Psychological evaluation of spinal cord injured patients. Presented at the acute spinal cord injury comprehensive management post graduate course, Bal Harbour, Florida, January 23, 1983.
- Brucker, B. S. Biofeedback in spinal cord injured patients. Presented at the Acute spinal cord injury-comprehensive management post graduate course, Bal Harbour, Florida, January 23, 1983.
- Brucker, B. S. Musculoskeletal and neuromuscular applications of biofeedback. Chairman, paper session presented at the Biofeedback Society of America Annual Meeting, Denver, Colorado, March 19, 1983.
- Brucker, B. S. Biofeedback: What is it and how does it work? Presented at the Modern Concepts of the Rehabilitation Process for Nurses post-graduate course, University of Miami/Jackson Medical Center, Miami, Florida, April 29-30, 1983.

- Brucker, B. S. Behavioral applications to Sports Psychology and Sports Medicine. Chairman, invited symposium presented at The American Psychological Association Convention, Anaheim, California, August 27, 1983.
- Brucker, B. S. Learned control of physiological responses for the treatment of sports injuries. Presented at The American Psychological Association Convention, Anaheim, California, August 27, 1983.
- Brucker, B. S., and Miller, N. E. Rehabilitation - The future proving grounds of behavioral medicine. Presented at The American Psychological Association Convention, Anaheim, California, August 28, 1983.
- Brucker, B. S., Sweet, G., and Kaplan, R. M. Psychological factors in illness and medical treatment. Co-chairs, poster session presented at The American Psychological Association Convention, Anaheim, California, August 29, 1983.
- Brucker, B. S. Contributions of psychology to the treatment of disease and disability. Chairman, invited symposium presented at The American Psychological Association Convention, Anaheim, California, August 29, 1983.
- Brucker, B. S. Neuromuscular and cardiovascular biofeedback applications to the treatment of disabling conditions. Presented at The American Psychological Association Convention, Anaheim, California, August 29, 1983.
- Brucker, B. S. Biofeedback application to sports injuries and orthopedics. Invited address presented at the New Horizons in orthopedics post graduate course, Hollywood, Florida, November 4, 1983.
- Brucker, B. S. The use of biofeedback in the spastic and nerve injured upper extremity. Presented at the post graduate course on surgery and rehabilitation of complex problems of the upper extremity. Bal Harbour, Florida, December 10, 1983.
- Everrsmann, W., Cooney, W. P., Stein, F., Brucker, B., and Miller, R. Surgery and Rehabilitation of tendon transfers in the upper extremity. Panel presented at the post graduate course on surgery and rehabilitation of complex problems of the upper extremity. Bal Harbour, Florida, December 10, 1983.

- Green, B. A., Brucker, B. S., Steele, R. M., and Edgar, M. D., co-directors. Controversies in rehabilitation for neurological trauma and disease. Post graduate course, Bal Harbour, Florida, January 26-29, 1984.
- Brucker, B. S. Computerized biofeedback for neurological disorders. Presented at the post graduate course, Controversies in rehabilitation for neurological trauma and disease. Bal Harbour, Florida, January 26, 1984.
- Brucker, B. S. Performance and Biofeedback. Chairman, Symposium presented at the Biofeedback Society of America Annual Meeting, Albuquerque, New Mexico, March 27, 1984.
- Brucker, B. S. Biofeedback in the treatment of sports injuries. Presented at the Biofeedback Society of America Annual Meeting, Albuquerque, New Mexico, March 27, 1984.
- Brucker, B. S. Multi-microprocessor approach for EMG biofeedback applications in rehabilitation. Presented at the Association for the Advancement of Medical Instrumentation Annual Meeting, Washington, D.C., April 15, 1984.
- Brucker, B. S. Biofeedback in the treatment of postural hypotension in spinal cord injury patients. Presented at the Association for the Advancement of Medical Instrumentation Annual Meeting, Washington, D.C., April 15, 1984.
- Brucker, B. S. Rehabilitation disasters. Presented at the Florida Hand Society Meeting, Grenelefe, Florida, May 19, 1984.
- Brucker, B. S. The role of computerized multi-channel EMG biofeedback in spinal cord rehabilitation. Presented at the National Spinal Cord Injury Association Annual Convention, Boston, August 10, 1984.
- Brucker, B. S. and Schwartz, G.E. Psychology's expanding role in medicine and rehabilitation. Chairman, invited symposium presented at the American Psychological Association Convention, Toronto, Canada, August 25, 1984.
- Brucker, B. S. Innovative behavioral treatment interventions in medicine and rehabilitation. Chairman, invited symposium presented at the American Psychological Association Convention, Toronto, Canada, August 25, 1984.

- Brucker, B. S. Behavioral techniques for restoring voluntary motor neuron control in neuropathology. Presented at the American Psychological Association Convention, Toronto, Canada, August 25, 1984.
- Brucker, B. S. Important considerations in transplantation and inplantation. Presented at the Prolonging Life symposium series, Miami Dade Community College, Miami, Florida, September 10, 1984.
- Brucker, B. S. Innovative biofeedback/behavioral techniques for functional improvement. Presented at the South Florida Regional Conference on Higher Education and the Handicapped. Miami, Florida, October 16, 1984.
- Brucker, B. S. Biofeedback: Neuro learning as treatment. Presented at the post graduate course Neuro update 1985, Miami, Florida, November 3, 1984.
- Brucker, B. S. Biofeedback and the management of spinal disorders. Presented at the post graduate course Advances in spinal surgery-IV, Bal Harbour, Florida, November 30, 1984.
- Bowker, J. H. and Brucker, B. S. Co-Chairmen, post graduate course Innovative strategies in rehabilitation: the search for function. Bal Harbour, Florida, December 7-9, 1984.
- Brucker, B. S. Innovative biofeedback applications in neurological rehabilitation. Presented at the post graduate course, Innovative strategies in rehabilitation: the search for function, Bal Harbour, Florida, December 7, 1984.
- Brucker, B. S. Computerized biofeedback and functional electrical stimulation: SCI. Presented at the post graduate course, Innovative strategies in rehabilitation: the search for function. Bal Harbour, Florida, December 8, 1984.
- Brucker, B. S. Biofeedback applications to voice disorders. Presented at the Miami Association of Communication Sciences Fall Workshop, Miami, Florida, October 26, 1984.
- Green, B. A. and Brucker, B. S. Co-directors, post graduate course Controversies in rehabilitation for neurological trauma and disease-II. Bal Harbour, Florida, January 23-27, 1985.

Brucker, B. S. What is the future of computerized EMG biofeedback in brain injury and disease? Presented at the post graduate course, Controversies in rehabilitation for neurological trauma and disease-II, Bal Harbour, Florida, January 24, 1985.

Brucker, B. S. Is computerized EMG biofeedback for spinal cord injury effective? Presented at the post graduate course, Controversies in rehabilitation for neurological trauma and disease-II, Bal Harbour, Florida, January 24, 1985.

Brucker, B. S. Cardiovascular biofeedback in the treatment of postural hypotension in spinal cord injury. Presented at the post graduate course, Controversies in rehabilitation for neurological trauma and disease-II, Bal Harbour, Florida, January 27, 1985.

Brucker, B. S. and Trexler, L. E. Behavioral medicine's role in the treatment of neurological trauma, disease, and disability. An Institute presented at the Society of Behavioral Medicine Annual Scientific Sessions, New Orleans, Louisiana, March 27, 1985.

Brucker, B. S. The successful integration of biofeedback in acute and rehabilitation medicine. Short course presented at the Biofeedback Society of America Annual Meeting, New Orleans, Louisiana, April 15, 1985.

Brucker, B. S. Computerized multichannel EMG biofeedback. Presented at the Florida Medical Association Annual Meeting, Hollywood, Florida, May 4, 1985.

Brucker, B. S. Biofeedback - breakthrough advances and the disabled. Presented at Florida Association of Rehabilitation Providers Annual Meeting, Hollywood, Florida, May 17, 1985.

Brucker, B.S. Biofeedback application in rehabilitation. Presented at the Biofeedback Society of Florida Workshop, Fort Lauderdale, Florida, June 8, 1985.

c. Invited outside lectureships

Pickering, T., and Brucker, B. S. Visceral learning in man. Invited address given to the faculty, Marist College, Poughkeepsie, New York, May 3, 1973.

- Brucker, B. S., and Ince, L. P. Blood pressure conditioning with a spinal cord injured patient. Television presentation appearing on The Scientists, Yorkshire Television Productions, England. Aired on National Independent Television Network, England, March 3, 1974.
- Brucker, B. S. Blood pressure conditioning in man and its implications for rehabilitation medicine. Lecture given to the Third Post-Graduate Course in Rehabilitation Medicine for Latin American Physicians at Goldwater Memorial Hospital, New York, May 15, 1974.
- Brucker, B. S. Interpretation of medical statistics. Lecture given to the medical residents, Department of Rehabilitation Medicine, New York University Medical Center, Goldwater Memorial Hospital, New York, July 8, 1974.
- Schwerner, S., Miller, M., Richardson, M., Rosenthal, I., Brucker, B. S., Friedburg, S., and Frankel, W. Symposium on practicum supervision. Department of Counselor Education, New York University, New York, April 30, 1975.
- Brucker, B. S. The use of biofeedback mechanism in blood pressure regulation in the spinal cord injured patient. Invited address given to the members of the Department of Rehabilitation Medicine, College of Physicians and Surgeons of Columbia University, New York, September 16, 1975.
- Brucker, B. S. Biofeedback as a method for learned voluntary control of blood pressure in spinal cord injured patients. Invited address given to the Department of Rehabilitation Medicine, Albert Einstein College of Medicine, Bronx Municipal Hospital Center, New York January 22, 1976.
- Brucker, B. S. Blood pressure/biofeedback. Lecture given to the Department of Rehabilitation Medicine, New York University Medical Center, Goldwater Memorial Hospital, New York, June 3, 1976.
- Brucker, B. S. Biofeedback applications. Invited address given as part of an accredited continuing education program for physicians at Rockland Psychiatric Center, Orangeburg, New York, March 2, 1977.
- Brucker, B. S., Leffler, J., and Chikazunga, C. EMG biofeedback applications to rehabilitation; A demonstration. Lecture given to the Department of Medicine, Rehabilitation Medicine, and Nursing, New York University Medical Center, Goldwater Memorial Hospital, New York, March 30, 1978.

- Brucker, B. S. Learned control of autonomic responses. Invited address given to the Department of Neurosciences, New Jersey Medical School, Newark, New Jersey, February 1, 1979.
- Brucker, B. S. Learned voluntary control of blood pressure and its therapeutic implications. Colloquium, presented to the Department of Psychology, University of Miami, Coral Gables, Florida, March 29, 1979.
- Brucker, B. S. Current research in learned cardiovascular responses. Seminar presented to the Department of Psychology, New York University, New York, April 16, 1979.
- Brucker, B. S. Man's ability to control his biological responses. Invited address given to the Biology Club, Barnard College, Columbia University, New York, May 2, 1979.
- Brucker, B. S. Biofeedback and behavioral medicine applications to rehabilitation. Invited address given to the faculty of the University of Miami School of Medicine, Miami, Florida, March 12, 1980.
- Brucker, B. S. Biofeedback application in rehabilitation. Invited address given to the Department of Rehabilitation Medicine, Kessler Institute for Rehabilitation, West Orange, New Jersey, February 18, 1981.
- Brucker, B. S. The role of the behavioral medicine laboratory in rehabilitation. Invited address given to the Department of Psychology, V.A. Hospital, Miami, Florida, May 4, 1981.
- Brucker, B. S. Applications of biofeedback in rehabilitation. A post graduate course for physicians, psychologists, physical therapists, occupational therapists and other rehabilitation professionals of Spain given at the Mapfre Rehabilitation Center, Madrid, Spain, May 28 - 30, 1981.
- Brucker, B. S. Biofeedback techniques in physical and occupational therapy. Invited address given to the Department of Physical Therapy, Cedar of Lebanon Hospital, Miami, Florida, July 27, 1982.
- Brucker, B. S. Application of biofeedback techniques for the treatment of brain damaged and spinal cord injured patients. Invited Grand Rounds, Craig Rehabilitation Hospital, Denver, Colorado, March 18, 1983.

- Brucker, B. S. Behavioral medicine applications in the treatment of physical disability. Colloquium, Psychology Department Nova University, Ft. Lauderdale, Florida, April 14, 1983.
- Brucker, B. S. Psychological factors in spinal cord injury patients. Presented at the State of Florida Department of Health and Rehabilitative Services Training Seminar for Vocational Rehabilitation Counselors, Miami, Florida, May 12, 1983.
- Brucker, B. S. Biofeedback applications in the rehabilitation of the neurological and orthopaedic patient. Invited address given to the medical and ancillary staff of South Miami Hospital, Miami, Florida, June 15, 1983.
- Brucker, B. S. Rehabilitation Psychology. Invited address presented at the continuing education conference on interdisciplinary management of patients with traumatic medical disabilities, West Palm Beach, Florida, October 13, 1983.
- Brucker, B. S. A workshop in neuromuscular re-education using EMG biofeedback therapy. Miami, Florida, October 27, 28, 29, 1983.
- Brucker, B. S., and Tapp, J. Behavioral Medicine. A colloquium presented at Nova University, Ft. Lauderdale, Florida, March 29, 1984.
- Brucker, B. S. Biofeedback applications to rehabilitation. Continuing education workshop for health care professionals, Miami, Florida, May, 1984.
- Brucker, B. S. Biofeedback and its application to rehabilitation. Invited address presented to the Miami O.T. Forum, Miami, Florida, November 13, 1984.
- Brucker, B. S. Computerized Biofeedback and Functional electrical stimulation for spinal cord injuries. Presented at the Department of Health and Rehabilitative Services Spinal Cord Injury Advisory Council Meeting, Miami, Florida, February 9, 1985.
- Brucker, B. S. Biofeedback as treatment for stroke and other disabling conditions. Presented at the Helping Hand Stroke Club, Key West, Florida, April 20, 1985.

Brucker, B. S. Biofeedback applications to head trauma. Presented at the Coma Recovery Association of South Florida, North Miami Beach, May 19, 1985.

Brucker, B. S. The intergration of biofeedback and physical and occupational therapy. Presented to the Department of Rehabilitation, Miami VA Medical Center, Miami, Florida, June 17, 1985.

Brucker, B. S. Biofeedback: Its application to orthopaedics and rehabilitation. Presented at Orthopaedic Grand Rounds, Orlando Regional Medical Center, Orlando, Florida, June 19, 1985.

Brucker, B.S. Biofeedback applications to spinal cord injury, head trauma, stroke and cerebral palsy. Presented to the Staff of Lucerne Spinal Injury Center, Orlando, Florida, June 19, 1985.

d. Society memberships and offices

American Psychological Association,

Division 22, Rehabilitation Psychology, APA
Division 6, Physiological and Comparative Psychology, APA
Division 38, Health Psychology, APA

Eastern Psychological Association

American Congress of Rehabilitation Medicine

Biofeedback Society of America

American Association for the Advancement of Science

Chairman of the Membership Committee, Division of Rehabilitation Psychology American Psychological Association

Member of the Research Committee, Division of Rehabilitation Psychology American Psychological Association.

Member of the Program Committee, Division of Rehabilitation Psychology American Psychological Association.

Member of the Program Committee, Division of Health Psychology, American Psychological Association.

Member of the Program Committee Biofeedback Society of America.

e. Editorial responsibilities

Assistant Editor of the Journal, Rehabilitation Psychology.

Associate Editor of the Rehabilitation Psychology News.

Editorial Review Board, the Journal, Biofeedback and self-regulation.

f. Examining Board memberships: none

g. Study Section and Council memberships: Grant reviewer and site visitor for NINCDS

h. Consultantships: none

i. Other honors and awards: none

12. OTHER PROFESSIONAL ACTIVITIES

Biofeedback diagnostics and treatment
Psychological assessment
Psychotherapy
for In-Patients and Out-Patients
at The Rehabilitation Center

Supervision of Psychology Staff at
The Rehabilitation Center

Director of Psychology Intern and Post-
doctoral fellowship training programs.

Supervision of V.A. Psychology Interns on
Rotation through the Psychology Department
at The Rehabilitation Center.

Development of new and innovation
Behavioral Medicine techniques
in Rehabilitation.

Development of microprocessors and software
programs for rehabilitation medicine applications.

13. COMMUNITY SERVICES

Various lectures given to local community groups as part of the UM/JMH speakers Bureau

PART B: BIBLIOGRAPHY

1. SCIENTIFIC ARTICLES IN REFERRED JOURNALS

Halberstam, J. L., Zaretsky, H. H., Brucker, B. S., and Guttman, A. R. Avoidance conditioning of motor responses in elderly brain-damaged patients. Archives of Physical Medicine and Rehabilitation, 1971, 52, 318-328.

Zaretsky, H. H., Brucker, B. S., Guttman, A. R., and Mete, J. Motor response time and task difficulty among aged and brain-damaged patients. Archives of Physical Medicine and Rehabilitation, 1971, 53, 418-424.

Ince, L. P., Brucker, B. S., and Alba, A. Behavioral techniques applied to the care of patients with spinal cord injuries. With an annotated reference list. Behavioral Engineering, 1976, 3, 87-95. Also in J. Kamiya, T. X. Barber, N. E. Miller, D. Shapiro, and J. Stoyva (Eds.). Biofeedback and self control 1976/77. Chicago: Aldine, 1977.

Zaretsky, H. H., and Brucker, B. S. Verbal discrimination learning as a function of brain damage, aging, and institutionalization. Journal of General Psychology, 1976, 95, 303,312.

Brucker, B. S., and Ince, L. P. Biofeedback as an experimental treatment for postural hypotension in a patient with a spinal cord lesion. Archives of Physical Medicine and Rehabilitation, 1977, 58, 49-83

Ince, L. P., Brucker, B. S., and Alba, A. Conditioning bladder responses in patients with spinal cord lesion. Archives of Physical Medicine and Rehabilitation, 1977, 58, 59-65.

Ince, L. P., Brucker, B. S., and Alba, A. Conditioned responses of the neurogenic bladder. Psychosomatic Medicine, 1978, 40, 14-23.

Ince, L. P., Brucker, B. S., and Alba, A. Reflex conditioning in spinal man. Journal of Comparative and Physiological Psychology, 1978, 92, 796-802.

Paradowski, W., Brucker, B., Zaretsky, H., Alba, A. The effect of unilateral brain damage on the appearance of question-induced CLEM reactions. Cortex, 1978, 14, 420-430.

Paradowski, W., Zaretsky, H., Brucker, B., and Alba, A. The effect of unilateral brain damage on the recognition of novel and familiar stimuli. Perceptual and Motor Skills, 1980, 51, 407-418.

Brucker, B. S., and Miller, W. An introduction to the use of biofeedback in sports medicine. The American Journal of Sports Medicine, 1983, 11, 4, 272.

2. BOOKS AND BOOK CHAPTERS

Pickering, T. G., Brucker, B., Frankel, H. L., Mathias, C. J., Dworkin, B. R., and Miller, N. E. Mechanisms of learned voluntary control of blood pressure in patients with generalized body paralysis. In Beatty, and H. Legewie (Eds.). Biofeedback and behavior. New York: Plenum Press, 1977.

Miller, N. E., and Brucker, B. S. Learned large increase in blood pressure apparently independent of skeletal muscle responses in patients paralyzed by spinal lesions. In N. Birbaumer, and H. D. Kimmel (Eds.). Biofeedback and self regulation. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1979.

Brucker, B. S. Biofeedback and rehabilitation. In L. P. Ince (Ed.). Behavioral Psychology in Rehabilitation Medicine: Clinical Applications. Baltimore: Williams and Wilkins, 1980.

Brucker, B. S. Biofeedback applications to low back pain. In Proceedings of Low Back '79. Albertson, N.Y.: Human Resources Center, 1980.

Brucker, B. S. Spinal cord injuries. In Burish and Bradley (Eds.). Coping with chronic disease: Research and applications. New York: Academic Press, 1983.

Brucker, B. S. Biofeedback in rehabilitation. In Golden (Ed.). Current topics in rehabilitation psychology. San Diego, California: Grune and Stratton, 1984.

Brucker, B. S., and Schwarts, D. Behavioral assessment of physical disorders. In Schniederma and Tapp (Eds.). Behavioral medicine: The biopsychosocial approach. Hillsdale, New Jersey: Lawrence Erlbaum Associates, in press.

3. PUBLISHED ABSTRACTS

Numerous abstracts published.

4. OTHER PROFESSIONAL ITEMS

Television presentation on Learned Blood Pressure Control appearing on the Scientists, Yorkshire Television Production, England. Aired on the National Independent Television Network, England, 1974.

Television presentation "Mysteries of the Mind" National Geographic Special. Aired nationally 1981.

Radio presentation Science Scene National Science Foundation presentation. Aired nationally 1980.

Television presentation on cable network news New methods of treatment for stroke victims. Aired nationally 1982.

Television presentation Nova Science Program on Spinal cord injuries. Aired nationally 1984.

Television presentation CBS Morning News on Biofeedback applications to spinal cord injuries. Aired nationally 1985.

TEACHING RESPONSIBILITIES IN THE PROGRAM IN PHYSICAL THERAPY:

Spring Semester PES 233 Communications in Physical Therapy

**UNIVERSITY OF MIAMI
CURRICULUM VITAE**

PART A: BIOGRAPHICAL INFORMATION

1. PERSONAL

- | | |
|----|---|
| a. | Date: June, 1985 |
| b. | Name: Ronald G. Clark |
| c. | Phone (home) 305-595-5861 |
| d. | Phone (office) 305-547-6942 |
| e. | Address (home):
9001 S.W. 77th Avenue #C-210
Miami, Fl. 33156 |
| f. | Status: Full Time |
| g. | Current Rank: Associate
Professor |
| h. | Citizenship: U.S |
| i. | Visa Type: N/A |
| j. | Birthdate: Jan. 16, 1938 |
| k. | SS#: 219-34-8359 |
| l. | Birthplace: U.S. |

2. HIGHER EDUCATION

B.A. The Johns Hopkins Univ, 1960
M.S. (Anatomy), The George Washington Univ. School of Medicine,
1963.
Ph.D. (Anatomy), The George Washington Univ. School of Medicine,
1966.

3. POST DOCTORAL TRAINING

N/A

4. BOARD CERTIFICATIONS AND LICENSURES

N/A

5. PROFESSIONAL EXPERIENCES

1970 - Present	Associate Professor, Dept. Anatomy, Univ. of Miami Med. Sch.
Nov. 1976 - Nov. 1979	Chairman, Associate Professor, Dept. of Anatomy, Univ. of Miami School of Medicine.
1974 - 1976	Acting Chairman, Dept. of Anatomy
1974 - Nov. 1976	Associate Professor and Acting Chairman, Dept. of Anatmy, Univ. of Miami School of Medicine.
1967 - 1970	Chief, Section of Histopathology (Biologist, GS-13), Laboratory of Pathology, Division of Biologics Standards, The National Institutes of Health.
1965 - 1970	Assistant Professorial Lecturer in Anatomy (Histology and Neuro-anatomy), The George Washington University School of Medicine.
1962 - 1966	Research Biologist, Section of Histopathology, Div. of Biologics Standards, The National Institutes of Health.

1961 - 1965 Teaching Fellow, Fetal Anatomy and Embryology, The George Washington Univ. School of Medicine.
1960 - 1961 Laboratory Instructor, Inorganic Chemistry, The American Univ.
1960 -1961 Research Assistant, Avian Physiology and Genetics, University of Maryland.

6. CURRENT AND PAST TEACHING RESPONSIBILITIES

In charge of the Neuroanatomy courses for the freshman medical students, Ph.D.-to-M.D. students, and Physiotherapy students.

Graduate courses: G601 - Seminar (in charge for one semester)
G505 - Neuroanatomy
G631 - Advanced Neuroanatomy

CURRENT RESEARCH ACTIVITIES:

My research efforts are proceeding along two lines -- one in field of Artificial Intelligence, the other in medical education. In Artificial Intelligence I am particularly interested in developing a system in knowledge engineering attempting to simulate the brain's ability to solve neurobiological problems. Each week I participate in a seminar at the main campus in the Intelligent Computer Systems Research Institute. My association with Dr. David Hertz, the Director of the Institute, has been especially stimulating. We have similar interests in Problem Solving, Reasoning, Memory and Learning. In essence, this period has been comparable to a postdoctoral or sabbatical experience.

With respect to medical education, I experimented with various student evaluation techniques this year in our Neuroanatomy Course. Utilizing a DBase III program on the IBM-XT, I maintained detailed records that I am now analyzing. The class was subdivided into 14 small groups each of which was supervised by an instructor. I entered the following information for each student: (1) Instructor Evaluations, (2) Peer Evaluations, (3) Self-Evaluations, (4) Oral Examinations by External Examiners (i.e., no instructor examined students from his/her own small group), (5) Written Examination #1 (subdivided into two components -- problem solving & objective), (6) Written Examination #2 (subdivided as in the first exam), (7) Final Examination (which was required only by a few students). Also, I am adding information to the database taken from a questionnaire each student completed. I can already see that the results of the study will shape my future approach to teaching. When complete, I plan to submit the study for publication. In addition, interactive videodisk applications will play a major role in the self-instructional and evaluative programs that I develop.

7. THESIS AND DISSERTATION ADVISING

Committee Member Humberto Valdes

8. GRANTS RECEIVED WITHIN PAST FIVE YEARS

9. DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Committee on Medical Education

10. EXTRA-DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Chairman of the Curriculum Committee 1977 - 1979
Chairman of the Animal Care Committee 1976 - 1979
Member of the Executive Committee of the Faculty 1974 - 1979
Member of the Executive Promotions Committee 1974 - 1978
Member of the Ph.D. to M.D. Program Committee 1978 - 1979
Member of the Research and Development Committee of
the Medical School 1977 - 1978
Member of the Freshman Promotions Committee 1970 - present
Member of the Graduate Faculty 1971 - 1983
Member of the Search Committee for the Chairman of Radiology
1978
Member of the Search Committee for the Director of the
Division of Animal Care 1979
General Research Support Grant Committee 1972
President Local Chapter National Society for Neuroscience
Member Microcomputer User's Group - 1983-present
Fellowships Committee of the Graduate School 1973
Member of Continuing Medical Education Committee 1980 - present
Member of Parkinson's Grants Committee 1980 - present
Member Haitian Physician Exchange Program 1983 - present

11. HONORS AND AWARD

A. None

1. George Paff Award for Most Outstanding Freshman Teacher (shared with Dr. Goldberg. 1984 & 1985
2. Elected into Alpha Omega Alpha Honorary Society as the outstanding teacher of the year 1985.
3. Honored in Synapse

B. NONE

C. Invited outside lectureships:

Invited participant at the Winter Conference on Brain Research, Keystone, Colorado, January 1978. "GLIOGENESIS - NORMAN AND NEO-PLASTIC".

D. Society Membership

Sigma Xi
American Association of Anatomists
Society for Neuroscience

E. Editorial Responsibilities:

1. Editorial Board for Journal of Clinical Neuro-Ophthalmology

F. Examining Board memberships: None

G. Study Section and Council membership: None

H. Consultanships: None

I. Other Awards: Teaching Honors

12. OTHER PROFESSIONAL ACTIVITIES

NONE

13. COMMUNITY SERVICES

NONE

PART B: BIBLIOGRAPHY

1. SCIENTIFIC ARTICLES IN REFEREED JOURNALS

Wilcox, F.H. and R.G. Clark, 1962. Semen dilution during storage and washing, Poultry Sci., XLI: 1091-1096.

Kirschstein, R.L. and R.G. Clark, 1966. Reproducibility of neuro-virulence tests. Proceedings of the International Symposium on Neurovirulence of Viral Vaccines, 2: 141-151.

Clark, R.G., P.P. McGrath, T.H. Milhorat, and J.B. Ewell, 1969. Ultrastructural white matter changes in acute experimental hydro-cephalus in the rhesus monkey. Proc. 27th Ann. Meeting Electron Microscopy Society of America: 346-347.

McGrath, P.P., R.G. Clark, T.H. Milhorat, and J.B. Ewell, 1969. Ultrastructural changes in the ependyma of the septum pellucidum in acute experimental hydrocephalus in the rhesus monkey. Proc. 27th Ann. Meeting Electron Microscopy Society of America: 344-399.

Milhorat, T.H., R.G. Clark, and M.K. Hammock, 1970. Experimental hydrocephalus. Part : Gross pathological findings in acute and subacute obstructive hydrocephalus. J. Neurosurg. 324: 390-399.

Clark, R.G., and T.H. Milhorat, 1970. Experimental hydrocephalus. Part 3: Light microscopic findings in acute and subacute obstructive hydrocephalus in the monkey. J. Neurosurg. 324: 400-413.

Milhorat, T.H., and R.G. Clark, 1970. Some observations on the circulation of phenosulfonphthalein in cerebrospinal fluid: Normal flow and the flow in hydrocephalus. J. Neurosurg. 325: 522-528.

Milhorat, T.H., R.G. Clark, M.K. Hammock, and P.P. McGrath, 1970. Structural, ultrastructural, and permeability changes in the ependyma and surrounding brain favoring equilibration in progressive hydrocephalus. Arch. Neurol. 22: 397-407.

Chaparas, S.D., S.R. Hedrick, R.G. Clark, and R. Garman, 1970. Comparison of the lymphocyte transformation test with the tuberculin test in rhesus monkeys and chimpanzees. JAMVM 31: 1437-1441.

Chaparas, S.D., R.G. Clark, M.W. Kies, and S.R. Hentrick, 1970. Transformation of lymphocytes from monkeys with experimental allergic encephalomyelitis. Res. Comm. Chem. Path. Pharm. 1: 637-652.

Clark, R.G., T.H. Milhorat, W.C. Stanley, and G. DiChirom, 1971. Experimental pantopaque ventriculography. J. Neurosurg. 34: 387-395.

Worthington, M., and R. Clark, 1971. Lack of effect of immunosuppression on scrapie infection in mice. J. Gen. Virol. 13: 349-351.

Schumacher, H.P., P. Albrecht, R.G. Clark, R.L. Kirschstein, and M.N. Tauraso, 1971. Interacerebral inoculation of rhesus monkeys with a strain of measles virus isolated from a case of subacute sclerosing panencephalitis. *Infec. Immun.* 4: 419-424.

Page, L.K., R.G. Clark, 1981. Gliomas in the Septal Area in Children. *Neurosurg.* 8(6): 651-655.

Clark, R.G., 1982, Central nervous system regeneration, *J. Clin. Neuro-Oph.* 2: 261-270.

2. BOOKS AND BOOK CHAPTERS

- (1) Author of Chapter 6 - "Experimental Obstructive Hydrocephalus: Part III Light Microscopic and Ultrastructural Findings"

BOOK: Symposium on Cisternography and Hydrocephalus, 1972

EDITOR: John C. Harbert, M.D.

PUBLISHER: Charles C. Thomas, Springfield, Illinois

- (2) Author of:

BOOK: "Manter's Essentials of Clinical Neuroanatomy and Neurophysiology" 5th edition

PUBLISHER: F.A. Davis Company, Philadelphia

IN PRESS: January 1975.

- (3) Author of:

CHAPTER: Anatomy of the Mammalian Spinal Cord, in Handbook of the Spinal Cord, Vol. 2, 1984, pp 1-50.

EDITOR: Davidoff R.

PUBLISHER: Marcel Dekker, Inc

3. PUBLISHED ABSTRACTS

NONE in Past 5 years

NEUROANATOMY VIDEOTAPES

I am the sole author of the following videotapes. They are utilized by freshman medical students, upper classmen, interns, residents and physicians in continuing Medical Education programs.

<u>SUBJECT</u>	<u>TAPE NUMBER</u>
The Gross Brain	VT-73-51
External Blood Supply of the Brain	VT-73-52
Medsagittal Brain	VT-73-53
Medulla X-Sections	VT-73-54
Pons X-Sections	VT-73-55
Midbrain X-Section	VT-73-56
Spinal Cord X-Sections	VT-73-59
Receptors	VT-73-60
CNS General Organization	VT-73-61
Spinal Cord Ascending Pathways (Lec PT1)	VT-73-62
Spinal Cord Ascending Pathways (Lec PT2)	VT-73-63
Spinal Cord Ascending Pathways (lec PT3)	VT-73-64
Lesions of the Spinal Cord & Medulla	VT-73-66
Brain Stem Preparation	VT-73-67
Blood Brain Barrier	VT-73-69
Spinal Cord Descending Pathways	VT-73-73
Spinal Cord Descending Pathways	VT-73-74
CSF Pathways - Part I	VT-73-76
CSF Pathways - Part II	VT-73-77
Frontal Brain Sections	VT-73-78
Horizontal Brain Section (Lab)	VT-73-79
Diencephalon (Slides 32-40)	VT-73-81
Basal Ganglia (Lec)	VT-73-82
Horizontal Brain Sections (Slides 52-56)	VT-73-86
Diencephalon (Slides 41-46)	VT-73-87
Brain Stem Lessons	VT-73-89
Limbic System Dissection	VT-73-90
Problem Solving Review	VT-75-3
Introduction to the CNS	VT-75-12
Important Transversal Sections of the Nervous System	VT-75-30
Problem Solving Session #2	VT-76-7

AUDIOTAPES:

Dr. Lawton Smith and I have produced 18 audiotapes of clinical neuroanatomy. I am the first author of each of the tapes. The tapes are advertised in neurology and ophthalmology journals and sold nationally.

<u>SUBJECT</u>	<u>TAPE NUMBER</u>	<u>YEAR</u>
Introduction to Neuroanatomy	A-1	1976
Receptors	A-2	1976
Motor Pathways	A-3	1976
Ateral Spinothalamic Tract	A-4	1976
Ascending Sensory Pathways	A-5	1976
Review Quiz	A-6	1976
Brain Stem - Medulla	A-7	1976
Brain Stem - Pons	A-8	1976
Brain Stem - Midbrain	A-9	1976
Facial Colliculus Syndrome and Fifth Nerve Nuclei	A-10	1976
Eighth Nerve	A-11	1976
Cerebellum	A-12	1976
Diencephalon	A-13	1976
Ventricular System	A-14	1976
Thalamus and Ganglia	A-15	1976
Blood Supply of the Brain	A-16	1976
Cerebral Cortex	A-17	1976
Visual Pathways	A-18	1976

- (1) "CNS CELLULAR RESPONSE TO CONTRAST VETRICULOGRAPHY" June 1974 - May 1977. \$136,835 awarded by the National Institute of General Medical Sciences.
- (2) "ROLE OF THE SUBPENDYMAL PLATE IN CARCINOGENESIS OF THE CENTRAL NERVOUS SYSTEM" August 1973 - June 1977. \$37,000 Woman's Cancer Association of the Univ. of Miami.
- (3) "STUDIES ON THE DOPAMINERGIC NEURON IN THE RAT SUBSTANTIA NIGRA" June 1974 - June 1976, \$45,000 National Science Foundation.
- (4) Principal Investigator, "DEVELOPMENT OF A RESEARCH SCANNING ELECTRON MICROSCOPY LABORATORY FACILITY" June 1977 - May 1978. \$33,000 awarded by the Womens Cancer Association.
- (5) Co-investigator with Drs. Viamonte and Lampe, "EVALUATION OF VASOSPASM IN CORD INJURY BY X-RAY MEDIA" July 1977 - June 1978. \$50,912 awarded by National-Institute of Neurological and Communicative Disorder and Strokes. Effective datel July 1977 - June 1979.

BOARD OF EDITORS:

Journ Clinical Neuro - Ophthal-
mology 1981 - present, Mason Pub Co.

TEACHING RESPONSIBILITIES IN THE PROGRAM IN PHYSICAL THERAPY:

Fall semester - PES 540 Neuroanatomy

UNIVERSITY OF MIAMI

CURRICULUM VITAE

PART A: BIOGRAPHICAL INFORMATION

1. PERSONAL
 - a. Birthdate: Dec. 20, 1942
 - b. Name: Stephen Goldberg
 - c. Phone-Home: 653-3480
 - d. Phone-Office: 547-6959
 - e. Address:
17500 N.E. 9th Avenue
North Miami Beach, FL
33162
 - f. Status: Full-time
 - g. Current Rank:
Associate Professor
 - h. Citizenship: U.S.A.

2. HIGHER EDUCATION

- B.A. Yeshiva University, New York, 1963.
M.D. Albert Einstein College of Medicine, New York, 1967.

3. POST DOCTORAL TRAINING

- Intern (Rotating), Motefiore Hospital, Bronx, New York, 1967-1968.
Residency, New York Medical College, 1971-1975 (Ophthalmology).

4. BOARD CERTIFICATIONS AND LICENSURES

- American Board of Ophthalmology, 1977
American Board of Family Practice, 1978
Licensed for Practice in General Medicine and Surgery in State of Florida

5. PROFESSIONAL EXPERIENCE

Associate Professor of Anatomy; Associate Professor of Family Medicine, 1982 - present.

Associate Professor of Anatomy; Assistant Professor, department of Family Medicine, University of Miami School of Medicine, 1980 - 1981.

Medical Director, Parkinson Research and Diagnostic Center, Miami, 1981 - present.

Assistant Professor, Department of Anatomy and Department of Family Medicine University of Miami School of Medicine, 1975 - 1979. Director, Ambulatory Care Unit, Jackson Memorial Hospital, 1978.

Assistant Attending in Ophthalmology, New York Medical College, 1973 - 1975.

Resident in Ophthalmology, New York Medical College, 1971 - 1973, 1974 - 1975.

Guest Researcher, National Eye Institute, Section on Experimental Eye Research, Laboratory of Dr. A.J. Coulombre, Bethesda, MD, 1970 - 1971.

Surgeon, Department of Neurology, Staten Island U.S.P.H.S. Hospital, N.Y., 1968 - 1970.

5. CURRENT AND PAST TEACHING RESPONSIBILITIES

Neuroanatomy to medical, Ph.D. - M.D. and Physical Therapy students, and neurology & neurosurgery residents.

Family Medicine, Neurology and Ophthalmology to Family Medicine residents.

Attending in Department of Family Medicine (co-appointment with Department of Anatomy).

Medical interviewing and Physical Diagnosis to First year Medical Students

Neurology to nurse practitioner students.

7. THESIS AND DISSERTATION ADVISING

Chairman, Susan Krayanek's Committee (Anatomy)

Member, David Beach's Committee (Physiology and Biophysics)

Chairman, Humberto Valdes' Committee (Anatomy)

Member, Debra Mash's Committee (Pharmacology)

8. GRANTS RECEIVED WITHIN PAST FIVE YEARS

YR 586917, Catecholamine-containing retinal optic axons: a model for Parkinson's disease; National Parkinson Foundation; 4/15/82-4/14/84; \$20,037; Goldberg, P.I.

National Parkinson Foundation; Auditory input as a therapeutic approach to Parkinsonism; \$1,100, 1982; Goldberg, P.I.

National Parkinson Foundation; 1982 - 83; \$1,200. Use of auditory input in facilitation of walking movements in Parkinson patients.

570846 Ultrastructural study of cell surface markers in regenerating and non-regenerating optic axons: BRSG; 4/1/82-3/31/82; \$4,000; with S. Krayanek.

Armour Foundation, donations to support nerve regeneration work; 1977 - 80; \$9,000.

H8661, Induction of Mammalian Retinal Regeneration; National Eye Institute; RO1-EYO-1981-03; 4/1/79 - 3/31/82; \$112,881; Goldberg, P.I.

H5722, Mammalian Retinal Regeneration; National Eye Institute; RO1-EY-2579-01; 1/1/79 - 12/31/81; \$173,121; Goldberg, P.I.

H8624, Induction of Mammalian Retinal Regeneration; National Eye Institute; RO1 EYO-1981-02; 4/1/78 - 3/32/79; \$23,885; Goldberg, P.I.

9. DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Chairman, Graduate Affairs Committee (Anatomy), 1980 - 83
Faculty Advisor, Eastern Student Research Forum

Steering Committee for the Family and Community Medicine Research Group.
Family Medicine Faculty Promotions Committee, 1981.

10. EXTRA-DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Patient Care Evaluations Committee, Jackson Memorial Hospital
Graduate Council Committee, Programs and Degrees
Member, Search Committee for a Parkinson Scholar
Member, Medical School Continuing Medical Education Committee
Faculty Advisor, Family Practise Club
Chairman, Family Medicine Continuing Education Committee
Member, Curriculum Committee

11. HONORS AND AWARDS

a. Visiting professorships - none

b. Scientific presentations at national, international meetings:

Goldberg, and Frank, 1979. American Association of Anatomists National Mtg. "The Critical Age at Which Axonal Guidance Fails in the Developing Mouse Retina". (Anat. Rec. 193:551A)

Goldberg and Frank, 1980. American Association of Anatomists National Mtg., "Axons Regenerate Less Well in Neonatal than in Older Mice". (Anat. Rec. 196:64A)

Goldberg and Frank, 1980. Association for Research in Vision and Ophthalmology. "Prospects for the Regeneration of Optic Fibers in the Mammalian Retina". (Investig. Ophthal. Vis. Sci., Ap. 92).

Goldberg and Frank, 1980. Society for Neuroscience Annual Mtg. "Regeneration of Optic Axons in the Chick Retina" 6:388.

Krayanek, S. and S. Goldberg, 1980. Soc. for Neuroscience Ann. Mtg. "Preneural pathways in the embryonic chick retina". (Soc. Neurosci. Abstr. 6:488).

Frank, B. and S. Goldberg, 1981. American Association of Anatomists Nat. Mtg. "Multiple optic fiber patterns in catfish". (Anat. Rec. - in press).

Goldberg, S. and B. Frank, 1981. Assoc. for Research in Vision and Ophthalmology Mtg. "Neural crest migration and axial specification in the chick retina". (Invest. Ophthal. Vis. Sci. Suppl. 20:174).

Goldberg, S. and B. Frank, 1981. Soc. For Neurosci. Ann Mtg. "Failure of axon fasciculation: a clue to regenerative failure?"

Goldberg, S., 1984. American Association of Anatomists National Mtg., "Reconstruction of whole brain from brain segments, using superglue."

c. Invited Outside Lectureships

1976. Anatomy of the Visual Pathways. Florida International University.

1977. The Invisible Map in the Formation of the Visual Pathways. Princeton University.

1977. Ophthalmology for the Family Physician. Miami Inter-national Hospital (3 lectures).

1978. The "Red Eye". Mercy Hospital, Miami.

1978. Development of Visual Pathways. Bascom Palmer Eye Institute.

- 1978. Management of Common Eye Problems. Royal Biscayne Beach Hotel, Dept. Family Medicine, Miami.
- 1979. Principles in Neurologic Diagnosis. Nurse Practitioner Program, Jackson Memorial Hospital.
- 1980. Development and Regeneration of the Visual Pathways. Case Western Reserve University, Department of Anatomy.
- 1983. Principles at Neurologic Localization. University of Guadalajara, Mexico. Aaron Brown Lectureship.
- 1985. Ophthalmologic Problems in The Elderly. V.A. Hospital, Miami.

d. Society Memberships and Offices.

International Society for Development Neuroscience
 American Association for Anatomists.
 Association for Research in Vision and Ophthalmology
 American Academy of Family Physicians
 American Association for the Advancement of Science
 Society for Neuroscience.

e. Editorial Responsibilities

Columnist - "Medical Pearls" section of the Journal of Energy Medicine.

f. Examining Board Memberships - none

g. Study Section and Council Memberships
 Member, NIH Site Visit Committee, 1979.

h. Consultantships - reviewed various manuscripts and NSF and NIH grants on topics pertaining to development neurobiology.

i. Other Awards and Honors:
 Premedical Award, Yeshiva College, 1963.

George Papf Award for Teaching Excellence, 1984 and 1985 Elected Member of Faculty AOA, Univ. Miami School of Medicine, 1984.

12. OTHER PROFESSIONAL ACTIVITIES

none

13. COMMUNITY SERVICE

Advisory Board Hillel Community Day School
 Board of Directors, Congregation Shaaray Tefilah

PART B. BIBLIOGRAPHY

1. Scientific Articles in Refereed Journals

- Goldberg, S. and M. Kotani: The projection of the optic nerve fibers in the frog Rana catesbeiana as studied by radioautography. Anat. Rec. 158: 325-32, 1967.
- Rosenbaum, A.E., Gabrielsen, T.O., Harris, H. and S. Goldberg; Cerebral manifestations of alveolar soft-part sarcoma. Radiology. 99: 109-115, 1971.
- Goldberg, S. Silver staining, Featuring rapid reduction, for whole mounts of retina and optic pathways in chick embryos. Stain Technol. 47:65-69, 1972.
- Goldberg, S. and A.J. Coulombre: Topographical development of the nerve fiber layer in the chick retina. A whole mount study. J. Comp. Neurol. 146:507-518, 1972.
- Goldberg, S. and M.A. Galin: Response of retinal ganglion cell axons to lesions in the adult mouse retina. Invest. Ophthalmol. 12:382-385, 1973.
- Goldberg, S.: Studies on the mechanics of development of the visual pathways in the chick embryo. Develop. Biol. 36:24-43, 1974.
- Goldberg, S.: Polarization of the avian retina. Ocular transplantation studies. J. Comp. Neurol. 168: 379-392, 1976.
- Goldberg, S.: Central nervous system regeneration and ophthalmology. Survey Ophthalmol. 20: 261-270, 1976.
- Goldberg, S.: The invisible ocular map. Bull. N.Y. Acad. Med. 52: 201-211, 1976.
- Goldberg, S.: Progressive fixation of morphological polarity in the developing retina. Develop. Biol. 53: 126-127, 1976.
- Goldberg, S.: Unidirectional, bidirectional, and random growth of embryonic optic axons. Exp. Eye Res. 25:339-404, 1977.
- Goldberg, S. and B. Frank: Pyridine-silver methods for the study of optic axons in retinal whole mounts. Stain Technol. 47:65-69, 1979.
- Goldberg, S.: Neurological JEMS, J. Energy Med. 1:35, 1980.
- Goldberg, S. and B. Frank: Will CNS axons in the adult mammal regenerate after bypassing a lesion? A study in the mouse and chick visual systems. Exp. Neurol. 70:675-689, 1980.
- Goldberg, S.: Principles of neurological localization. Am. Family Physician 23:131-141, 1981.

- Goldberg, S. and B. Frank: Do young axons regenerate better than old axons? Exp. Neurol. 74:245-259, 1981.
- Goldberg, S. and B. Frank: The retina as a model system in paraplegia research. I. Pharmacologic Studies. Exp. Neurol 73:582-587, 1981.
- Krayanek, S. and S. Goldberg: Oriented extracellular channels and axonal guidance in the embryonic chick retina. Develop. Biol. 84:41-50, 1981.
- Frank, B. and S. Goldberg: Multiple optic fiber patterns in the catfish retina. Investig. Ophthal. 24:1429-32, 1983.
- Goldberg, S., B. Frank, and S. Krayanek: Axon end bulb swellings and rapid retrograde degeneration following retinal lesions in young animals. Exp. Neurol. 79:753-762, 1983.
- Krayanek, S. and S. Goldberg: Changes in extracellular space in optic nerves of regenerative and non-regenerative animals after hypertonic fixation: Implications for axon regeneration. Exp. Neurol. 83:42-48, 1983.
- Goldberg, S.: A misconception about Parkinson Medication. Parkinson Report 2 (issue 1):2, 1984.
- Goldberg, S.: Independence as a therapeutic goal in Parkinsons Disease. Parkinson Report 2 (issue 2): 6-7, 1984.
- Goldberg, S.: Nutrition Coverage in Health Magazines Parkinson Report 2 (issue 3), 2, 1985.
- Goldberg, S.: Optimistic points about Parkinsons disease. Parkinson Report 2 (issue 5), 12, 1985.

2. Books

- Goldberg, S. Clinical Neuroanatomy Made Ridiculously Simple, Med Master, 1983. (Spanish, German and Japanese translations, 1985)
- Goldberg, S. Ophthalmology Made Ridiculously Simple, Med Master, 1982.
- Goldberg, S. Clinical Anatomy Made Ridiculously Simple, Med Master, 1984.
- Goldberg, S. The Four-Minute Neurologic Exam, Med Master, 1984.

3. Published Abstracts

- Goldberg, S. and M. Kotani: The projection of the optic fibers of Rana catesbeiana as demonstrated by radioautography. Anat. Rec. 154: 462, 1966.
- Goldberg, S.: The invisible ocular map. Ophthalmol. Digest. Nov. 1976, pg. 20.
- Goldberg, S.: Realignment of ocular polarity following transplantation of the eye to the optic tectum. Anat. Rec. 187:589, 1977.
- Goldberg and Frank: American Association of Anatomists National Mtg., "The critical age at which axonal guidance fails in the developing mouse retina". (Anat. Rec. 193:551), 1979.
- Goldberg, and Frank: American Association of Anatomists National Mtg. "Axons regenerate less well in neonatal than in older mice" (Ant. Rec. 196:64A), 1980.
- Goldberg, and Frank: Association of Research in Vision and Ophthalmology, "Prospects for the regeneration of optic fibers in the mammalian retina". (Investing. Ophthalm. Vis. Sci, Ap. 92), 1980.
- Goldberg, and Frank: Society for Neuroscience Annual Mtg. "Regeneration of optic axons in the chick retina". Soc. Neurosci. Abstr. 6:388, 1980.
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- Frank, B. and S. Goldberg: Multiple optic fiber patterns in catfish retina. Anat. Rec., April 1981.
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- Goldberg, S. and B. Frank: Failure of axon fasciculation: a clue to regenerative failure? Society for Neuroscience Ann. Mtg., October, 1981.
- Krayanek, S. and S. Goldberg: Extracellular space and axon regeneration. Investig. Ophthal. Vis. Sci Ann. Mtg. 1982.
- Goldberg, S.: Reconstruction of whole brain from brain segments, using superglue. Anat. Rec., April, 1984.

TEACHING RESPONSIBILITIES IN THE PROGRAM IN PHYSICAL THERAPY:

Fall Semester PES 540 Neuroanatomy

Date: June 1986

PERSONAL

Name: Helen Louise Masin Home Phone: (305) 966-4235
Office Phone: (305) 547-6961
Home Address: 6781 S.w. 10th Court, Pembroke Pines, FL 33023
Employment Status: Primary Department: Peds.
Current Rank: Assistant Professor
Citizenship: USA

HIGHER EDUCATION

Institutional:

New York University, New York, B.S. in Physical Therapy, 1970

Emory University, Atlanta, GA, M.M.Sc. in Physical Therapy,
Specialization in Pediatrics and Education, 1977

Non-Institutional Training

Course in Prosthetics, New York University Postgraduate School
of Medicine, New York, January 1972

Bobath Seminar in Neurodevelopmental evaluation and treatment of
children and adults. May 1973

Seminar in Value Clarification in Education, Medical College of
Georgia, Augusta, GA May 1974

Seminar in planning clinical education experiences for physical
therapy and physical therapy assistant students March 1976

Workshop for clinical educators, Miami-Dade Community College,
Miami Beach, FL Annually 1973 - 1976

Workshop for clinical educators, Florida International Univ.
Miami, FL Annually 1974 - 1976

Workshop for clinical educators, University of Florida, Gainesville,
FL Annually 1974 - 1976

Clinical Education Workshop, Emory University, Atlanta, GA
November 1976

Music Therapy Workshop, London England, March 1978

Pediatric Special Interest Group Workshop, Baltimore, MD
January 1979

Cardiac Physical Therapy Seminar, Baltimore, MD April 1979

Pediatric Special Interest Group Workshop, Baltimore, MD
January 1980

Sensory Motor Integration as a Basic for Therapeutic Exercise,
University of Maryland, Baltimore, MD March 1980

Early Infant Assessment, Georgetown University, Washington, DC
May 1980

Sensory Integration Workshop, Mount Vernon College, Washington, DC
June 1980

University of Miami School of Medicine, Dept. of Pediatrics, Weekly
Professional Staff Conferences Sept. 1980 - Present

University of Miami School of Medicine, Mailman Center for Child
Development, Weekly Interdisciplinary Staff Conference
September 1980 - Present

Genetics Seminar, University of Miami Mailman Center for Child
Development, Miami, FL October 1980

Introduction to Brazelton Neonatal Assessment Scale, Mailman Center
for Child Development, Miami, FL June 1981

Graduate course "An Integrated Approach to Treatment of the Neuro-
developmentally Impaired Child", Johns Hopkins University,
Dorsey, Maryland June-August 1981

AMA Symposium on Diet and Exercise, November 1981

The Normal Acquisition of Oral Feeding Skills: Implications for
Assessment and Treatment, Tallahassee, FL February 1982

The Turnabout Workshop for Nutrition and Fitness, Governor's Council
on Fitness, Orlando, FL March 1982

Certification and Licensure:

Registered Physical Therapist:

State of New York, #003131, 1970 - Present
State of Florida, #0001153, 1972 - Present
State of Georgia, #808, 1976 - Present
State of Maryland, #14854, 1978 - Present

EXPERIENCE

Institutional:

Adjunct Assistant Professor, Department of Pediatrics, University of Miami School of Medicine, Director of Physical Therapy Division, Mailman Center for Child Development, Miami, FL
Responsibilities: Developed and supervised a physical therapy program at the Mailman Center. This included administration of the physical therapy division; teaching developmental physical therapy to students at the center, local universities and the community; and providing evaluative and consultative services at a variety of clinics held at the Mailman Center. The clinics included interdisciplinary training clinics, genetics clinic and hi-risk follow-up clinic.
September 1980 - May 1982

Visiting Professor, Florida International University, Miami, FL
Teaching Responsibility: Developmental Physical Therapy
February-March 1981

Visiting Professor, Consulting Physical Therapist, Debbie Institute, Mailman Center for Child Development, Miami, FL
Responsibilities: Consulted with Debbie Institute teachers, parents, and staff regarding physical therapy intervention and program planning for students 0-3.
June 1982 - Present

Adjunct Faculty, University of Miami Program in Physical Therapy, Miami, FL
Teaching Responsibility:
1982 - Present

Professional:

COSTEP Physical Therapist - U.S. Public Health Service Hospital, Baltimore, MD
Responsibilities: Provided physical therapy services under supervision of registered physical therapists to adult inpatients and outpatients.
Summer 1969

Staff Physical Therapist - Bedford VA Hospital, Bedford, Mass.
Responsibilities: Provided physical therapy evaluation and treatment services to adult inpatients and outpatients. Other duties included participation in weekly prosthetic clinics and assisting in an experimental closed circuit television speech therapy project between Bedford VA and Massachusetts General.
October 1970 - June 1972

- Staff Physical Therapist - Easter Seal Rehabilitation Center, Ft. Lauderdale, FL
Responsibilities: Provided physical therapy evaluation and treatment services to clients from 3-90 years. Other activities included developing and implementing the creative movement group for multi-handicapped children attending the Seagull School.
August 1972 - August 1974
- Assistant Chief Physical Therapist and Clinical Coordinator - Easter Seal Rehabilitation Center, Ft. Lauderdale
Responsibilities: Developed, implemented and supervised student-affiliation programs for physical therapy students from three universities and one community college. Other responsibilities included providing evaluation and treatment services to clients from 3-90 years of age, and acting as Chief Physical Therapist in the absence of the Chief Physical Therapist.
- Full-time Graduate Trainee- Pediatric Physical Therapy and Education, Emory University, Atlanta, GA
September 1976 - December 1977
- Senior Physiotherapist - St. Bartholomew's Hospital, London, England
Responsibilities: Provided physical therapy evaluation and treatment services for severely and profoundly handicapped children 6-21 years of age living at the Eastern Hospital and supervised physiotherapy students. Other activities included visiting various pediatric rehabilitation facilities in and around London and spending one and one-half days per week observing various therapy programs at St. Bartholomews.
January 1978 - June 1978
- Physical Therapist - Hope Center, Inc., Temple Hills, MD
Responsibilities: Developed and implemented a full-time physical therapy evaluation and treatment program for multi-handicapped students 3-21 years of age. Other activities included participation in IEP conference and teaching home programs to students and/or their families.
January 1979 - June 1979
- Physical Therapist - H.W. Wheatley Special Center, Forestville, MD
Responsibilities: Developed and implemented a full-time physical therapy evaluation and treatment program for multi-handicapped students 6-21 years of age. Other activities included inservice training for school staff, participation in IEP conferences, teaching home programs to students and/or their families, and developing a feeding program in conjunction with speech therapy, OT and teachers.
September 1980 - May 1982

PROFESSIONAL ORGANIZATIONS

- Member - American Physical Therapy Association, 1969 - Present
- Member - World Confederation of Physical Therapy, 1970 - Present
- Member - Center for the Study of Sensory Integrative Dysemmetion
1980 - Present
- Chairman - Pediatric Special Interest Group for Dade and Broward
Counties, FL, February 1982
- Chairman - Pediatric Special Interest Group of the Florida Chapter
of the American Physical Therapy Association
October 1982

RESEARCH

"The Use of Creative Movement as a Means of Affecting Body Image in
the Physically Handicapped Child." Master's Thesis, Graduate
Programs in Physical Therapy, Emory Univesity, Atlanta, GA

OTHER PROFESSIONAL ACTIVITIES

Scientific and Professional Presentations:

- Physical Therapy for Severely and Profoundly Handicapped Children,
Special Education Teachers, H.W. Wheatley Special Center,
Forestville, MD, January 1980
- Physical Therapy in Children with Feeding Problems, Special
Education Teachers, Dade County, Miami, FL, September 1980
- Physical Therapy in Developmental Disabilities, Guest Lecturer,
University of Miami, Dept. of Sociology, Miami, FL
November 1980
- Physical Therapy in Developmental Disabilities, Dade County Special
Education Teachers, Miami, FL, November 1980
- Creative Movement as a Means of Improving Body Image; Mailman Center,
Miami, FL, November 1980
- Physical Therapy in Developmental Disabilities Interdisciplinary
Training; Mailman Center, Miami, FL, November 1980
- Creative Movement as a Means of Improving Body Image, Lecturer for
Chilean Special Education Teachers, Mailman Center, Miami, FL
February 1980

Physical Therapy in Developmental Disabilities, Interdisciplinary Training; Mailman Center, Miami, FL, February 1981

Developmental Evaluation and Treatment, Florida International University, Physical Therapy students, Mailman Center, Miami, FL, February-March 1981

Reflexive Evaluation, Medical doctors, Mailman Center, Miami, FL March 1981

Interdisciplinary Evaluation, Easter Seal Rehab. Center, Ft. Lauderdale, FL, March 1981

Developmental Evaluation and Treatment, Medical residents in pediatrics, Mailman Center, Miami, FL, April 1981 - Present

Physical Therapy Intervention for Feeding Problems, Sunland Training Center, Miami, FL, April 1981

Infant Stimulation, parents of normal preschoolers in Debbie School, Nursery, Mailman Center, Miami, FL, April 1981

Normal Child Development, parents of hearing impaired children, Broward County Public Schools, Plantation, FL, April 1981

Evaluation and Intervention in Children with Feeding Problems, Speech Pathologists, Easter Seal Center, Miami, FL May 1981

Physical Therapy in Developmental Disabilities, HRS Nurses visiting Mailman Center, May-June 1981

Physical Therapy in Developmental Disabilities, Interdisciplinary Training, Mailman Center, Miami, FL, June 1981

Evaluation and Management of Feeding Problems in Developmentally Delayed Children, Nutrition faculty and students, Mailman Center, Miami, FL September 11, 18, 1981

Overview of an Integrated Approach to Treatment Neurodevelopmentally Impaired Child, Mailman Center, faculty and students and community P.T.'s and O.T.'s, Speech Pathologists, and Psychologists, Mailman Center, FL, Sept., Oct. 1981

Physical Therapy in Developmental Disabilities - Pediatric Grand Rounds, Hollywood Memorial Hospital, Hollywood, FL October 1981

Physical Therapy in Developmental Disabilities, parents of Debbie School children, Mailman Center, Miami, FL, January 1982

Physical Therapy in Developmental Disabilities, Interdisciplinary Graduate Students, Mailman Center, Miami, FL, February 1982

Physical Therapy in Developmental Disabilities, Lecturer for visiting Chilean physical therapists and special educators, Mailman Center, Miami, FL, February 1982

Pediatric Therapy, Overview and Problem Solving, Lecturer for United Cerebral Palsy of Sarasota, Manatee, Inc. and Sarasota County School System, Department of Exceptional Student Education, March 1982

Feeding Techniques for Handicapped Children, Debbie School teachers, Mailman Center,, Miami, FL March 1982

Physical Therapy in Developmental Disabilities, students at Robert Morgan Vocational Technical Institute, Miami, FL, March 1982

Feeding Techniques for Handicapped Children, for special educators, parents, physical and occupational therapists and nutritionists, Tallahassee, Orlando, and Tampa, FL, April-May 1982

Pediatric Physical Therapy in Developmental Disabilities, Pediatric Grand Rounds, North Miami General Hospital, Miami, FL, August 1982
Hollywood Memorial Hospital, Hollywood, FL, October 1982

Interdisciplinary Graduate Students, Mailman Center, Miami, FL October 1982

Consultant to American Dietetic Association, Planning for feeding workshops nationwide, Atlanta, GA, November 1982

Pediatric Physical Therapy in Developmental Disabilities, Women's Professional Network Meeting, Hollywood, FL, December 1982

Belly Dancing as Therapeutic Exercise, SE District Meeting, Fla. Physical Therapy Association, St. John's Nursing Home, Lauderdale Lakes, FL, January 1983

Physical Therapy in Developmental Disabilities, Interdisciplinary Graduate Students, Mailman Center, Miami, FL, February 1983

Videotaped presentation on Pediatric Physical Therapy for Florida Physical Therapy Association, to be aired on Selrirk Cable Television in Hallandale, Hollywood, and Ft. Lauderdale, FL February 1983

Physical Therapy Evaluation for Developmental Disabilities, Physical Therapy Assistant Students, Miami-Dade Community College, Miami, FL, March 1983

Physical Therapy Evaluation for Developmental Disabilities, Physical Therapy Students, University of Miami, Miami, FL, April 1983

CURRICULUM VITA

PERSONAL

- 1. Date: June, 1987
- 2. Name: Arlette Cohen (Perry)
- 3. Address: 3160 Prairie Avenue
Miami Beach, FL 33140
- 4. Home Phone: (305) 534-8074
Office Phone: (305) 284-3011
- 5. Employment Status: Full Time
- 6. Current Academic Rank: Assistant Professor
- 7. Primary Department: Physical Therapy,
Exercise Science & Sport Studies
- 8. Citizenship: U.S.A.
- 9. Visa Type: None

HIGHER EDUCATION

- 10. Brooklyn College B.S. 1969 - 1973
- Louisiana State University M.S. 1973 - 1975
- New York University Ph.D. 1976 - 1981

NON-INSTITUTIONAL TRAINING

11. NONE

12. CERTIFICATION - LICENSURE

<u>Agency</u>	<u>License</u>	<u>Date</u>
New York City Board of Higher Education	Physical Education Secondary School System	1972
Florida State Board of Higher Education	Physical Education Secondary School System	1976

13. INSTRUCTIONAL EXPERIENCE

<u>Institution</u>	<u>Rank/Status</u>	<u>Dates</u>
Abraham Lincoln High School	Secondary School Teacher	1978, 1981
John Dewey High School	Secondary School Teacher	1976, 1977-78
Louisiana State University	Graduate Assistant	1973 - 1975
University of Miami	Assistant Professor	1981 -

14. PROFESSIONAL EXPERIENCE

<u>Employer</u>	<u>Title</u>	<u>Dates</u>
Louisiana State University	Graduate Assistant	1973 - 1975
Brooklyn College Laboratory of Work Physiology	Research Assistant	1978 - 1981
Kingsbay YMHA	Cardiovascular Fitness Instructor	1978
University of Miami	Assistant Professor Director - Laboratory of Work Physiology	1981 - Present

15. MILITARY EXPERIENCE NONE

16. PUBLICATIONS

- Michielli, D.W., Stein, R.H., Glantz, M., Sardy, H., and Cohen A.
"A Comparison of Exercise Training Intensities on Lipoprotein
Cholesterol Fractions," Medicine & Science in Sports, 13:2,
May, 1981, p. 106.
- Michielli, D.W., Stein, R.W., Glantz, M., Sardy, H., and Cohen, A.
The Effects of Different Exercise Training Intensities on
Plasma Cholesterol," Medicine & Science in Sports, 14:2, May,
1982, p. 110.
- Cohen, A. "Dance: Aerobic or Anaerobic?" Journal of Health
Physical Education, Recreation and Dance, March, 1984, pp.
51-53.
- Cohen, A., Tapp, J., Weeks, L., Cross, D. "The Effects of Interval
Aerobic Training on Lipid Fractions," Southeastern Chapter of
the American College of Sports Medicine, February, 1984, p.
28. This was presented at the Southeastern Chapter of the
ACSM.
- Cohen-Perry, A., Behrens, J., and O'Shea, M. "Is Exercise
Physiology Reaching the Ranks of Professional Football?"
National Athletic Training Journal, Fall, 1984, pp. 185-188.
- Cohen-Perry, A., Sanders, J. "The Distinction Between Drug Use and
Abuse," National Athletic Training Journal, Summer, 1985, pp.
123-127.

Perry, A., Mosher, P., Roalstad, M., & Grey, S. "Maximum Oxygen Uptake and Running Performance on a 5 vs. 12-minute Test for Distance." Research Council Proceedings, March, 1986, p. 1. This was presented at the Southern District of the American Association for Health, Physical Education, Recreation and Dance.

Cohen, A., Tapp, J., Weeks, L. "The Effects of Interval Aerobic Training on Plasma Lipid Fractions of Male and Postmenopausal Sedentary Faculty." Journal of Sports Medicine and Physical Fitness. June 1986, 186-193.

Perry, A., Grey, S., Mosher, P., and Roalstad, M. "Maximum Oxygen Uptake and Performance on the 5 vs. 12-minute Test for Distance." Florida Association of Health Physical Education Recreation and Dance, February, 1986, pp. 3-5.

Roalstad, M.S., Perry, A., Mosher, P. and Ostrovsky, P. "A Comparison of Latent Iron Deficiency in Competitive Triathletes and Distance Runners," Medicine and Science in Sports and Exercise, 18:2, April, 1986. Supplement. This was presented at the National ACSM Conference by Ms. Roalstad in the Poster Session. Ms. Roalstad was the first graduate student to complete our new graduate Exercise Physiology program at the University of Miami, School of Education and Allied Professions.

Perry, A., Mosher, P., LaPerriere, A., Roalstad, M., and Ostrovsky, P. "A Comparison of Training Responses to Interval vs Continuous Dance," Medicine and Science in Sports and Exercise, 19:2, April, 1987, pg. 89. Presented at the American College of Sports Medicine Conference, May 30, 1987.

17. JURIED OR REFEREED JOURNAL ARTICLES

All of the aforementioned publications are from refereed journals.

18. OTHER PUBLICATIONS

Cohen-Perry, A. "Fitness from a Physiologists' Perspective". International Medical Center Journal, II:IV, May/June, 1985, pp. 14-15.

19. OTHER WORKS ACCEPTED FOR PUBLICATION

20. WORKS CURRENTLY BEING REVIEWED FOR PUBLICATION

Cohen-Perry, A., Mosher, P., Roalstad, M., Ostrovsky, P., and Laperriere, A. "A Comparison of Training Responses to Interval vs. Continuous Aerobic Dance." Accepted for publication by Journal of Sports Medicine and Physical Fitness.

Vandercar, D., Laperriere, A., Shyer, L., Ward, M., McCabe, P., Perry, A., & Schneiderman, N. "Microcomputer Automated System for Measuring Systolic Time Intervals in Response to Exercise and a Psychophysiological Task." Under review for publication in Psychophysiology.

21. PROFESSIONAL AND HONORARY ORGANIZATIONS

American College of Sports Medicine, 1981 - present
Postgraduate Medicine, September, 1981 - present
Member of the National Strength and Conditioning Association (NSCA), 1982 - present
Member of the Association of Fitness Directors in Business (AFB), 1982 - present
Member of the American Heart Association (AHA), 1984 - present
Member of Center for Science in the Public Interest, (CSPI) 1982 - present
Member of the American Association of Health, Physical Education, Recreation and Dance, (AAHPERD) 1985 - present
Member of the North American Conference of Pediatrics Physiology - August 1986.

22. HONORS AND AWARDS

- a. Graduate of Brooklyn College, B.S., Magna Cum Laude, 1973.
- b. Received graduate assistantship to attend Louisiana State University 1973-75.
- c. Appointed Director of the Human Performance Laboratory and Research Center, University of Miami, 1982.
- d. Director of the first Faculty Fitness Program. This program began in 1982 with a handful of teachers from the School of Education and Allied Professions, 2 bikes, and a small classroom. We now have over 60 faculty and staff members in our program in addition to 6 bicycle ergometers, 2 treadmills, a Collins respirometer, a Quinton 3-Lead EKG, a Horizons System V Metabolic Cart, an 8-station Mini Universal System, 2 rowing machines centered in a research-oriented Laboratory in the School of Education and Allied Professions.

- e. We developed our Masters Degree Program in Exercise Physiology in January, 1983. At that time we had only 2 graduate students majoring in exercise physiology. One of them has presented her paper at the National ACSM Convention Poster Session. The other graduate student went on to become one of the Who's Who Among Graduate Students in American Colleges and Universities for her excellent work in the community and faculty training program. We now have approximately 30 graduate students majoring in Exercise Physiology. We also have a new adjunct professor, Dr. Mark Nash, who also directs the Spinal Cord Rehabilitation Center at the University of Miami Medical School.
- f. We have begun our first Community Cardiovascular Fitness Program. The purpose of this program is to bridge the gap between the university system and public at large, establish closer ties with the community, upgrade our research efforts by reaching a greater segment of the population and increase the support for more laboratory equipment, facilities, and graduate assistants.
- g. Appeared on WIOD Radio Station September 18, 1983 to speak on "The Physiological Effects of Long Term Use of Anabolic Steroids."
- h. Appeared on WGBS Radio Station, July, October, and November 1983 to speak on "Exercise in the Prevention of Cardiovascular Risk Factors."
- i. Appeared on WINZ Radio Station, January 1985 to speak on "Behavioral Modification: Exercise as a Way of Life."
- j. Appeared in feature article by Ena Naunton of The Miami Herald "Twice is Not Enough for Fitness", June, 1983. This article came about as a direct result of our research on exercise training and changes in cholesterol fractions. That research appeared in the June issue of The Journal of Sports Medicine and Physical Fitness, 1986. Ena Naunton was a participant in our study.
- k. The results of our Faculty Training program also appeared in the University of Miami paper, Veritas, entitled "Give Dr. Cohen an Hour each Week and She will give you a Chance to Reduce Your Risk of Heart Attack," September 1982.
- l. Appeared on Channel 7 Eyewitness News Report to speak on "Dance as a Method of Improving Fitness: Myth or Reality," Sunday, April 1, 1985.
- m. Appointed to Graduate Faculty, April, 4, 1985. Appointment to graduate faculty is based upon graduate teaching and research efforts.

- n. Received Exercise Test Technologist Certificate by the American College of Sports Medicine, May 26, 1985.
- o. Received tenure April 30, 1987.
- p. Received promotion to Associate Professor April 30, 1987.
- q. Accepted to the National Academy of Sciences June 8, 1987
- r. Will be speaking to the Department of Orthopedics and Rehabilitation on Interval Training August 13, 1987.

AWARDS

- a. Recipient of the distinguished "Educational Alumni Research Award for \$3,000.00. This award enabled us to complete our study entitled "Effects of Interval Aerobic Training on Cholesterol Fractions of Sedentary Male and Postmenopausal University Faculty."
- b. Recipient of a \$66,000.00 donation for research and equipment at the University of Miami Human Performance and Research Laboratory.
- c. Recipient of the Governors Award for Outstanding Achievement in the field of Physical Fitness. This plaque was issued and signed by Governor Graham and received May, 1985 in Tallahassee, Florida.

23. POST DOCTORAL FELLOWSHIP

24. TEACHING RESPONSIBILITIES

Fall:

Graduate Exercise Physiology (Graduate)
 Metabolic Measurements in Man (Graduate)
 Cardiovascular Aerobics
 Exercise Training and Evaluation - Lecture & Laboratory -
 Levels I and II

Spring:

Advanced Nutritional Planning for Sports and Athletic
 Performance (Graduate)
 Curriculum in Sport Health (Graduate)
 Exercise Training and Evaluation - Levels I and II
 Cardiovascular Aerobic Dance

Summer:

Cardiac Rehabilitation Phase I - IV (Graduate)
EKG Evaluation (Graduate)
Sports Medicine for the Female Athlete (Graduate)
Therapeutic Exercise Physiology - (for physical therapy students)

25. RESEARCH PERFORMED

- a. Initial research involved an individual effort to learn more about the field of exercise physiology. Our first program was a pilot exercise program that looked at the effects of interval aerobic conditioning upon lipid fractions of male and postmenopausal faculty. The year long study involved training on the stationary bicycle ergometer. Blood pressure, heart rate, work output and training intensity were closely monitored. The lipid values observed included total cholesterol, H.D.L. cholesterol L.D.L. cholesterol V.L.D.L. cholesterol and triglycerides. A \$3,000.00 Alumni Award from the School of Education and Allied Professions made this research possible.

Subsequent research involved joint efforts and a valuable line of communication with the Behavioral Medicine Program, the Medical School, and the Biochemistry Department in the College of Arts and Sciences and The School of Engineering.

- b. In the Medical School we have worked with the Spinal Cord Research program to evaluate the Cardiovascular Status of Male and Female Quadraplegics and Paraplegics.
- c. We are presently setting up a program so that plasma cholesterol fractions and apoproteins A-I, A-II can be studied by our graduate students. I will be working with Dr. Hsia at the Medical School.
- d. I am presently working with Dr. Shebbab Asfour in the Biomedical Engineering Department, on a graduate study entitled "Physiological Guidelines for the Design of Continuous Leg Lifting Tasks."
- e. We have worked with Dr. Man of the College of Arts and Sciences looking at hematological differences between Triathletes and Long Distance Runners.
- f. We have worked with Dr. Schneiderman of Behavioral Medicine in observing differences in physiological response to mental stress in well-trained aerobic vs. sedentary college-age students.
- g. We have worked with the athletics department in designing off-season aerobic exercise for varsity athletes. I also did

initial cardiovascular evaluations on incoming freshmen football players. I have worked with athletic trainer Andy Clary to upgrade the cardiovascular assessment of all varsity basketball players. Earlier research with the former athletic trainer at the University of Miami, Mike O'Shea involved a comprehensive review of training programs and ergonomic aids to performance used by professional football teams in the N.F.L. This research was published in the National Athletic Training Journal

- h. I completed research validating the use of a 5-minute field test designed by Dr. D.W. Michielli to assess cardiorespiratory status. This is a relatively new test that may become a more effective replacement for the 12-minute test designed by Dr. Ken Cooper to assess cardiovascular status. I was inspired to do this work by Dr. Michielli, Director of the Laboratory of Work Physiology at Brooklyn College.
- i. I completed physiological testing on students attending two different types of aerobic dance classes, a) interval and b) continuous. We found that interval aerobic dancing leads to superior improvements in cardiovascular fitness, oxygen pulse, maximum minute ventilation and anaerobic threshold. This research was part of a thesis by Ms. Mosher comparing interval to continuous training.
- j. We are currently working on research and cardiovascular evaluation of 3, 4, and 5 year-old children. The study is part of a larger research study examining the physiological and psychological benefits of aerobic training on pre-pubescent children.
- k. One of our graduate students in Exercise Physiology is currently working with Dr. Hsia at the medical school, in order to assess plasma lipid fractions and apoproteins. The study will compare female runners to aerobic dance instructors in assessment of HDL-C, LDL-C, VLDL-C, triglycerides, apo A_I and apo A_{II} levels. We are trying to get funding for this Master's thesis which will be submitted for publication to the American College of Sports Medicine.
- l. We are presently working at the Mail man Center evaluating cardiovascular status on 3-5 year-old children.

26. GRANTS

We have just received a \$30,000.00 Behavioral Medicine Research Grant from the Medical School to study the "Effect of Exercise on Stress Induced Changes in Immune Function in HTLV III positive male homosexuals." I will

be setting up the exercise program and evaluation procedures and will also be working very closely with the Immunologist in analyzing the relationship between cardiovascular training and immune function changes.

GRANTS APPLIED FOR:

We have applied for a 3 year \$507,104.00 Naval Research Grant to study the relationship between stress, exercise, psychological variables, immune function and health. I will be in charge of setting up, coordinating, supervising all graded exercise testing and training procedures. My role is to study metabolic changes during exercise and work with the immunologist in the assessment of any significant relationship between physiological changes variables and immune function changes.

27. FUTURE RESEARCH

Now that our graduate program has grown so much, I will spend a good deal of my time supervising the graduate students and helping them to explore their areas of interest. By opening our cardiovascular training program to the public we have also increased our research potential and tapped upon a greater population to study the field of exercise physiology.

I also wish to explore changes in exercise habits and immune function response. I believe this is a relatively new direction for exercise physiology and certainly an unexplored one. I think we need to pay particular attention to those who have a compromised immune function system to begin with.

My personal area of interest is exercise and cholesterol fractions. I would like to do more research on the effects of exercise training upon plasma apoproteins in women. There are still too many unanswered questions regarding the effects of exercise on lipid levels and a great deal more research is necessary in this field. Hormonal variations during the menstrual cycle make the assessment of plasma lipid changes in females more complex. The effects of aerobic training on plasma lipid fractions of females taking oral contraceptives is another complex yet intriguing research area that needs to be further explored. Given the present refinements in measuring techniques of plasma lipid fractions, higher quality research can be performed.

We are also looking at future research with Type I diabetics.

Dr. Skyler and myself along with one of our graduate students, are designing a study to observe the effects of two different types of exercise programs on insulin sensitivity and glycosylated hemoglobin. One circuit would be designed specifically to enhance cardiovascular fitness and another circuit would be designed specifically to improve muscular strength and muscular endurance. This type of study would enable us to observe changes that are specific to either the method of training or to the heightened interest and care of themselves patients take when they enroll in an exercise program. We will be applying for a grant from the American Diabetes Foundation for research.

UNIVERSITY OF MIAMI
CURRICULUM VITAE

PART A: BIOGRAPHICAL INFORMATION

1. PERSONAL

- a. Date: June, 1985
b. Name: Phillip Ray Waggoner c. Phone-Home: 253-1833
d. Phone-Office: 547-6691 e. Adress:
18524 S.W. 90th Court
Miami, Florida 33157
f. Status: Full-time g. Current Rank:
Associate Professor
h. Citizenship: U.S.A.

2. HIGHER EDUCATION

West Virginia University Biology B.A. 1965
West Virginia University Zoology M.S. 1968
West Virginia University Developmental Biology Ph.D. 1972

3. POST DOCTORAL TRAINING

None

4. BOARD CERTIFICATION AND LICENSURES

None

5. PROFESSIONAL EXPERIENCE

1965-1967 Teaching Assistant in Comparative Anatomy and Embryology: West Virginia University, Department of Biology.
1967 (Fall) Teaching Assistant in Comparative Anatomy; West Virginia University, Department of Biology.
1968 (Spring) Instructor in General Biology and Vertebrate Zoology: Fairmont State College, Department of Biology.
1968-1970 Instructor in Comparative Anatomy and Embryology: West Virginia University, Department of Biology.
1971 Teaching Assistant in Medical Microanatomy; West Virginia University Medical School.
1972- 1980 Assistant Professor, Department of Anatomy, Wayne State University.
1980 Associate Professor, Department of Anatomy, University of Miami School of Medicine.

6. CURRENT AND PAST TEACHING RESPONSIBILITIES

- 1965-1967 Responsible for teaching laboratory segment of Comparative Anatomy and Vertebrate Embryology classes to senior level undergraduate students.
- 1968 Organized and delivered a course in General Biology (both lecture and laboratory) to two sections of freshman undergraduate students. Organized and delivered a course in Vertebrate Zoology to Sophomore undergraduate students.
- 1968-1970 Taught the laboratory segment of Comparative Anatomy and Vertebrate Embryology classes to senior level undergraduate students.
- 1971 Assisted teaching the laboratory segment of a Micro-anatomy course to freshman medical students.
- 1972-1975 Participated in (lectures and laboratories) team taught course in Microanatomy, Embryology and Gross Anatomy to freshman medical students.
- 1975-1977 Organized and delivered (lectures and laboratory) a course in Descriptive Human Embryology to Anatomy graduate students. Participated in lectures and laboratories in team taught course in Gross Anatomy to freshman medical students.
- 1977-1980 Took a leading role in a team taught course in Gross Anatomy to freshman medical students. Participated in Embryology course to freshman medical students.
- 1980-1985 Coordinator for Gross Anatomy for first year Medical Students
Coordinator for Gross Anatomy for Physical Therapy Students
Assistant with Gross Anatomy for Ph.D. - M.D. Students
Direct Gross Anatomy Teaching Elective for Senior Medical Students
Direct Gross Anatomy Special Dissections for Senior Medical Students
Direct Gross Anatomy Teaching Program for Otolaryngology Residents
Liason for Gross Anatomy Courses for Oral Surgery, Orthopedic Surgery, Anesthesiology, and Ophthalmology Residents

7. THESIS AND DISSERTATION ADVISING

None

8. GRANTS RECEIVED WITHIN PAST FIVE YEARS

June 1, 1976-March 31, 1977: Electron Microscopy of the developing cornea. Biomedical Research Support Grant to Wayne State University from NIH. Grant number RR 05384, \$4,000.

February 1, 1977-January 31, 1980: Plasma Membrane proteins of ocular lens cells. NIH Grant number EY 01855-01. \$129,788. Co-investigator with H. Maisel (Principal Investigator). J. Alcala and M. Bagci.

July 1, 1977-March 31, 1978: Sloughing cells of the developing cornea. Biomedical Research Support Grant to Wayne State University from NIH. Grant number 05384-16, \$1,200.

9. DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

AAUP Bargaining Council Representative, 1974-1975

Teaching Assignment Committee, 1975-1977

Salary Committee, 1977-1979

Chairman Salary Committee, 1978-1979

Teaching Committee, 1981-present

10. EXTRA-DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

Teller's Committee, School of Medicine 1976-1977

Chairman Teller's Committee, School of Medicine, 1977-1979

Freshman Promotions Committee, 1980-present

Admissions Committee, 1982-1985

Chairman Screening Committee on Admissions, 1984-85

11. HONORS AND AWARDS

a. Mayo Clinic School of Medicine, November 1981.

b. Waggoner, P.R. 1973 Lens regeneration from the cornea in larval Xenopus laevis. A workshop on Lens Differentiation, March 21-23, Oakland University, Rochester, Michigan.

Waggoner, P.R. and R.W. Reyer 1974 DNA synthesis during lens regeneration in larval Xenopus laevis. Southern Society of Anatomist - 14th Annual Meeting, October 10-12, West Virginia University, Morgantown, West Virginia.

Waggoner, P.R. 1975 Ontogeny of chick beta crystallin subunits by immunofluorescence. American Association of Anatomists - Eighty Eighth Annual Session, March 24-27, University of California, Los Angeles, California.

Waggoner, P.R. 1976 Scanning electron microscopy of the anterior corneal epithelium of the developing chick. Eighty Ninth Annual Session of the American Association of Anatomists, April 18-22, Louisville, Kentucky.

Waggoner, P.R. 1977 Thyroxine enhancement of microvilli proliferation on the developing chick corneal epithelium. Ninetieth Annual Session of the American Association of Anatomist, May 2-5, Detroit, Michigan.

Waggoner, P.R. 1978 Ontogeny of the major plasma membrane polypeptide of chick lens fiber cells. Ninety-first Annual Session of the American Association of Anatomists, April 3-6, Vancouver, British Columbia, Canada.

Waggoner, P.R. 1979 Desquamating Cells of the developing chick corneal epithelium. Ninety-second Annual Session of the American Association of Anatomists, April 2-5, Miami, Florida.

- c. Southeastern Sports Medicine, Anatomy of the Knee Joint, July 8, 1982.

Southeastern Sports Medicine, Anatomy of the Shoulder Joint, September 20, 1982

Surgery Grand Rounds (University of Miami), Some Recent Developments in Surgical Anatomy, April 18, 1985

- d. American Association of Anatomists
Southern Society of Anatomists
American Association of Clinical Anatomists

e. None

f. None

g. None

h. None

- i. Selected as Teacher of the year 1980-81 by freshman medical students

Yearbook Dedication, Senior Class 1984 University of Miami School of Medicine

12. OTHER PROFESSIONAL ACTIVITIES

None

13. COMMUNITY SERVICE

None

PART B. BIBLIOGRAPHY

1. SCIENTIFIC ARTICLES IN REFEREED JOURNALS

Waggoner, P.R. 1973 Lens differentiation from the cornea following extirpation or corneal transplantation in Xenopus laevis. J. Exp. Zool. 186: 97-110.

Waggoner, P.R., N.G. Lieska, and H. Maisel 1974 Electrophoretic study of the soluble proteins of the developing chick neural retina and brain. *Experientia* 30: 1376-77.

Waggoner, P.R. and R.W. Reyer 1975 DNA synthesis during lens regeneration in larval Xenopus laevis. J. Exp. Zool. 193: 65-71.

Waggoner, P.R., N. Lieska, J. Alcalá and H. Maisel 1976 Ontogeny of the chick lens beta crystallins by immunofluorescence. *Ophthalmol. Res.* 8: 292-301.

Maisel, H., M.M. Perry, J. Alcalá and P. Waggoner 1976 The structure of the chick lens water-insoluble material. *Ophthalmol. Res.* 8: 55-63.

Waggoner, P.R. 1978 Effects of exogenous thyroxine on the surface morphology of the developing chick corneal epithelium. *Experientia* 34: 1213-1215.

Waggoner, P.R. 1978 Scanning electron microscopy of the developing chick anterior corneal epithelium. *J. Embryol. Exp. Morphol.* 44: 217-255.

Waggoner, P.R. and H. Maisel 1978 Immunofluorescent study of a chick lens fiber cell membrane polypeptide. *Exp. Eye Res.* 27: 151-157.

Waggoner, P.R. and N.J. Philp 1981 Method for long term delivery of soluble agents to the chick chorioallantoic membrane. *Experientia* 37: 321-322.

Waggoner, P.R. and N.J. Philp 1981 Desquamating cells of the chick embryo corneal epithelium. *Ophthalmol. Res.* 13:198-205.

2. BOOKS AND BOOK CHAPTERS

Alcalá, J., P. Waggoner, R. Bradley and H. Maisel 1979 Immunocytologic specificity of antibody to plasma membrane polypeptides of the chick lens. In: *Immunology and Immunopathology of the Eye*. Silverstein and O'Conner (Eds.). Masson and Cie, New York.

3. PUBLISHED ABSTRACTS

Waggoner, P.R. 1973 Lens regeneration from the cornea in larval Xenopus laevis. Dissertation Abstracts 22 (12).

Waggoner, P.R. and R.W. Reyer 1975 DNA synthesis during lens regeneration in larval Xenopus laevis. J. South Carolina Med. Assoc. 71:20.

Waggoner, P.R. 1975 Ontogeny of chick beta crystallin subunits by immunofluorescence. Anat. Rec. 18:502.

Alcala, J.R., P.R. Waggoner, N. Lieska, and H. Maisel 1975 Polypeptide composition of the soluble protein fraction of the developing chick neural retina and brain. 10th Int. Cong. Anat., Tokyo.

Waggoner, P.R. 1976 Scanning electron microscopy of the anterior corneal epithelium of the developing chick. Anat. Rec. 184:555.

Waggoner, P.R. 1976 Thyroxine enhancement of microvilli proliferation on the chick corneal epithelium. Anat. Rec. 187:739.

Waggoner, P.R. 1978 Ontogeny of the major plasma membrane polypeptide of chick lens fiber cells. Anat. Rec. 190:575.

Alcala, J., Bradley, R., Kuszak, J., Waggoner, P., and H. Maisel 1978 Biochemical and structural features of chick lens gap junctions. J. Cell Biol. 79:219a.

Alacala, J., P.R. Waggoner, R.H. Bradley, and H. Maisel 1978 Immunocytologic specificity of antibody to plasma membrane polypeptides of the chick lens. Second International Symposium on Immunology and Immunopathology of the Eye in association with the XXIII International Congress of Ophthalmology, San Francisco, California, May 8-10, 1978.

Waggoner, P.R. 1979 Desquamating cells of the developing chick corneal epithelium. Anat. Rec. 193:712.

4. OTHER PROFESSIONAL ITEMS

Representative to Florida State Anatomical Board
Director Body Donor Program University of Miami

TEACHING RESPONSIBILITIES IN THE PROGRAM IN PHYSICAL THERAPY:

Summer Session I - Gross Anatomy for Physical Therapists I (PES 231)

Summer Session II - Gross Anatomy for Physical Therapists II (PES 232)

ADJUNCT FACULTY

Alphabetical Listing:

Lehman, Phyllis S.
Pahl, Craig
Storey, SueEllen
Wise, Holly H.

UNIVERSITY OF MIAMI
CURRICULUM VITAE

PART A; BIOGRAPHICAL INFORMATION

1. PERSONAL

a. Date: August 1987

- b. Name: PHYLLIS SRYBNIK LEHMAN, RPT
- c. Phone-Home: 305-891-7385
- d. Phone-Office: 305-756-6013
- e. Address: 2100 San Souci Blvd., North Miami, FL 33181
- f. Status: Part time
- g. Current Rank: Instructor
- h. Citizenship: USA

2. HIGHER EDUCATION

New York University, New York
MA, 1969

New York University, New York
Certificate in Physical Therapy: BS, 1962

3. POST DOCTORAL TRAINING

None

4. BOARD CERTIFICATION AND LICENSURE

Physical Therapy Licence - Florida #2238
Physical Therapy Licence - New York #1904

5. PROFESSIONAL EXPERIENCE

Methodist Hospital of Brooklyn, New York
Staff Physical Therapist
1962-1969

Full-time private practice, Brooklyn, New York
Clinical Affiliation Site for Downstate College
1969-1977

Private Practice, including contractual arrangements with home
health agencies, Miami, Florida

1977-Present

Electro-Med Health Industries, Inc., Miami, Florida
Owner
1977-Present

6. CURRENT AND PAST TEACHING RESPONSIBILITIES

Downstate College for Health Related Professions
Lecturer: Prosthetics and Orthotics
1970-1977

University of Miami School of Medicine
Division of Physical Therapy
Lecturer: PTS 542 Electrotherapy
Fall Semester 1987

7. THESIS AND DISSERTATION ADVISING

None

8. GRANTS RECEIVED WITHIN PAST FIVE YEARS

None

9. DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

None

10. EXTRA-DEPARTMENTAL ADMINISTRATIVE AND COMMITTEE RESPONSIBILITIES

None

11. HONORS AND AWARDS

Outstanding Service Award, New York Chapter -
American Physical Therapy Association, 1978

Lucy Blair Service Award
American Physical Therapy Association, 1984

12. OTHER PROFESSIONAL ACTIVITIES

Member-New York State Board of Physical Therapy

Active Member-American Physical Therapy Association,
1962-Present

Chapter President-New York Chapter, APTA
District Director, Treasurer- Greater New York District APTA
Chief Delegate-Greater New York District

Delegate to American Physical Therapy House of Delegates
1970-1980, 1982, 1984, 1986, 1987

Member-APTA Finance Committee, 1972-1978

Member-APTA Nominating Committee, 1978-1981
(Chairman 1980-1981)

Chairman-APTA Task Force on Definition of Physical Therapy
1983

Active Member-Florida Physical Therapy Association, 1977-Present

Member-Private Practice Section APTA

Board of Directors-Private Practice Section, APTA

Treasurer-Private Practice Section, APTA, 1980-1984

Finance Committee-Private Practice Section, APTA, 1984-1985

13. COMMUNITY SERVICE

Consultant and member- Advisory Board and Search Committee
University of Miami, Program in Physical Therapy, 1981

PART B: BIBLIOGRAPHY

1. SCIENTIFIC ARTICLES IN REFERRED JOURNALS

None

2. BOOKS AND CHAPTERS

None

3. PUBLISHED ABSTRACTS

None

4. OTHER PROFESSIONAL ITEMS

Post Graduate and Continuing Education:

Many courses in Orthotics, Prosthetics, Mobilization, PNF, Chest
P.T., Functional Electrical Stimulation, Pain Control, Bobath
Technique, Doman Delacato

Personal

CRAIG HARVEY PAHL
17721 S.W. 84th Court
Miami, Florida 33157
Home Phone: (305) 253-4418
Office Phone: (305) 662-4915

HIGHER EDUCATION

Institutional:

1986 - Present	Indiana University	Master Candidate
1981 - 1984	University of Miami Coral Gables, Florida	B.S. Education/Allied Health Certification in Physical Therapy
1978 - 1979	Wilkes College	Biology Major

Non Instit. Training:

Sept. 1987	<u>Marketing/Management in Private Practice</u> , Orlando, Florida, Jay Goodfarb, P.T.
Nov. 1986	<u>Mobilization of the Lumbar Spine</u> , Miami, Florida, Ola Grimsby, P.T.
Sept. 1986	<u>Evaluation and Mobilization Treatment of Cervical Spine</u> , Fort Lauderdale, FL, Ira M. Fiebert, Ph.D., P.T.
Sept. 1984	<u>Hand Dysfunction and Treatment</u> , New York, NY
April 1984	<u>Florida Spring Conference</u> , Orlando, FL
March 1984	<u>McKenzie Treatment Approach for Low Back Care</u> , C. Jacksons, M.A., P.T.
Jan. 1984	<u>Self Awareness in Patient Treatment Planning</u> , Carol Davis, Ph.D.
June 1983	CYBEX Seminar, R. Tibbit
March 1982	<u>Bobath Techniques for Adult Hemipelgia</u> , Carol Davis, Ph.D.

CERTIFICATION

Florida License #PT0004011

EXPERIENCE

August - Present	Administer of Outpatient Office, Adjunct Faculty Program of Physical Therapy, University of Miami Coral Gables, Florida.
------------------	--

- July 1984 - Present President and Co-Founder, Physical Therapy Associates, P.A.,
Physical Therapist
Miami, Florida
Responsibilities include:
- Co-Administration of outpatient office
- Evaluation and treatment of orthopaedic and neurological patients
- Supervise staff therapists and ancillary personnel
- May 1984 - Staff Physical Therapist, South Miami Hospital
July 1984 South Miami, Florida
Responsibilities included:
- Evaluation of orthopedic and neurological patients
- Treatments of all types of rehabilitation patients
- 1984 - 1985 Adjunct Faculty, University of Miami
Coral Gables, Florida
Responsibilities included:
- Evaluation of clinic facility
- Student clinical assessment
- Coordinate student affiliations
- April 1980 - May 1984 Physical Therapy Aide, South Miami Hospital
South Miami, Florida
Responsibilities included:
- Patient treatment (modalities)
- Patient transport
- Instruction to new aides
- May 1979 - Aug. 1979 Volunteer in Physical Therapy Dept., Veterans Hospital
Wilkes Barre, Pennsylvania

PROFESSIONAL AND HONORARY ORGANIZATIONS

- American Physical Therapy Association
1981-1984 Student member
1984-Present Active member
1984 Education Panel member, S.E. Florida
- Section membership - 1984-Present Orthopedic Section
1984-Present Hand Section
1984-Present Private Practice Section

RESEARCH/PUBLICATIONS

- 1987 Fiebert, I.M., Wise, H.H., Pahl, C.P., Kadel, K. and Hayes, K.
Don't Baby Your Back. Whirlpool, 1987, 10(1), 16-19.
- Jan. 1984 - June 1984 Pahl, Borys, Kadel. Strength Gains in Normal Quadriceps
Using Isokinetic vs. Isotonic Exercise Protocols, (University of
Miami Physical Therapy Project 1984).

SCHOLASTIC AWARDS

- Golden Key National Honor Society
- Phi Kappa Phi National Honor Society
- President's Honor Roll Fall 1982
 Spring 1983
 Fall 1984
- SEAP Alumni Scholarship

COMMUNITY ACTIVITIES

1986 - Present

Member/Committee on Total Employment

1981 - 1982

Member/Volunteer, Dade County Special Olympics

CURRICULUM VITAE

Sue Ellen K. Story R.P.T. MMSci.
905 Versailles Circle
Maitland, Florida 32751
305-629-5706

EDUCATION:

University of Kentucky Bachelor of Science
Lexington, Kentucky Zoology 1973

Emory University Certificate in Physical Therapy
Atlanta, Georgia 1975

Emory University Master of Medical Science
Atlanta, Georgia 1981

Coursework and clinical practicum with emphasis on cardio-pulmonary physiology and pathophysiology; administration and research; cardiopulmonary rehabilitation; electrocardiogram interpretation. Thesis: Early mobilization of the MI patient.

WORK EXPERIENCE:

Clayton General Hospital CoDirector of Cardiopulmonary
Riverdale, Georgia Rehabilitation 1978-1981

Job responsibilities included patient care, program development, patient and staff education, staff supervision, stress testing and interpretation, graduate student affiliation supervisor.

Emory University Clinical Faculty
Programs in Physical Therapy 1980-1982
Atlanta, Georgia

Emory University Hospital Staff Physical Therapist
Atlanta, Georgia 1976-1977

Experience included neurology, arthritis, pulmonary, and oncology patients; also audit procedure and student supervision.

CURRICULUM VITAE

Sue Ellen Story R.P.T. MMSci.

Page Two

CONTINUING EDUCATION:

American College of Cardiology Annual Conference New Orleans, Louisiana	1987
American College of Cardiology Annual Conference Atlanta, Georgia	1986
American Heart Association Annual Conference Washington, D.C.	1985
American Physical Therapy Association Mid Winter Section Meeting Orlando, Florida	1985
American Physical Therapy Association Mid Winter Section Meeting Nashville, Tennessee	1983
American College of Cardiology Annual Conference Atlanta, Georgia	1982
American Physical Therapy Association Mid Winter Section Meeting San Diego, California	1982
American Heart Association Annual Conference Dallas, Texas	1981
American College of Cardiology Three day seminar; Cardiac Rehabilitation and New Developements in Cardiology San Francisco, California	1980
American Physical Therapy Association National Meeting Atlanta, Georgia	1978

PERSONAL

Holly Haizlip Wise
8230 S.W. 151st Street
Miami, FL 33158
Home Phone: 305-255-4918
Office Phone: 305-662-4915

HIGHER EDUCATION

Institutional:

1981 - 1984	University of Miami Coral Gables, FL	Ph.D., Administration of Higher Education
1975 - 1977	Duke University Durham, NC	M.S., Physical Therapy
1971 - 1975	Wake Forest University Winston-Salem, NC	B.A., Biology

Non-Institutional Training: Physical Therapy

May 1987	<u>World Confederation of Physical Therapists, Sydney, Australia</u>
March 1987	<u>Florida Chapter Spring Conference, Miami Beach, FL</u>
January 1987	<u>Basic Spinal Manual Therapy (SI) OLA Grimbsy, Miami, FL</u>
September 1986	<u>Florida Chapter Fall Conference, Orlando, FL</u>
June 1986	<u>Annual Conference, American Physical Therapy Association, Chicago, IL</u>
March 1986	<u>Florida Chapter Spring Conference, Jacksonville, FL</u>
June 1985	<u>Annual Conference, American Physical Therapy Association, New Orleans, LA</u>
February 1985	<u>APTA Combined Sections Meeting: Musculoskeletal Changes During the Childbearing Year, Jim Porterfield, P.T. Orlando, FL</u>
October 1984	<u>Florida Chapter Fall Conference, Orlando, FL</u>
June 1984	<u>Annual Conference, American Physical Therapy Association Las Vegas, NV</u>
April 1984	<u>Florida Chapter Fall Conference, Winter Park, FL</u>
January 1984	<u>Spinal Traction, Duane Saunders, P.T., Fort Lauderdale, FL</u>
January 1984	<u>Functional Orthopedics I, Greg Johnson, P.T., Stuart Bell, Donna Bajeles, P.T., Miami, FL</u>
July 1983	<u>Gross Anatomy Seminar, University of Miami Medical School, Dr. P. Waggoner and J. Rohan, M.S., P.T., Miami, FL</u>
June 1983	<u>Annual Conference, American Physical Therapy Association, Kansas City, KS</u>
April 1983	<u>Spring Conference, Florida Chapter APTA, Orlando, FL</u>
March/April 1983	<u>Spinal Evaluation, Treatment and Mobilization, 24 hour course, Ira M. Fiebert, Ph.D., P.T., Miami, FL</u>

December 1982 State of the Arts Workshop on Biofeedback Application in Sports Medicine, presented by the American Orthopaedic Society for Sports Medicine, Bal Harbour, FL

November 1982 The Neurophysiologic Foundations of Therapeutic Exercise, Marylou Barnes, Ed.D., P.T. and Carolyn Crutchfield, Ed.D., P.T., Miami, FL

October 1982 Florida Chapter Fall Conference, Orlando, FL

September 1982 Conservative Management of the Spine, Barrett L. Dorko, P.T., University of Miami, Coral Gables, FL

August 1982 A Neurorehabilitation Institute, Shereen Farber, M.S., O.T.R., F.A.O.T.A., Tallahassee, FL

April 1982 Sports Physical Therapy and Fitness Seminar, J. Ciolek, A.T.C., P.T., and Robert Volski, P.T., A.T.C., C.E.T., C.E.S., Miami, FL

March 1982 An Introduction to Electromyography and Nerve Conduction Velocity, John Echternach, Ed.D., P.T., and Alan Stone, M.A., P.T., Fort Lauderdale, FL

February 1982 PNF: An Educator's Sumposium, Greg Johnson, P.T. and Vicky Saliba, P.T., San Diego, California

October 1981 Florida Chapter Fall Conference, Orlando, FL

June 1981 Aging and the Challenge of Rehabilitation, Osa L. Jackson, Ph.D., P.T., and Carole Bernstein Lewis, M.S., P.T., Lauderdale Lakes, FL

June 1981 Annual Conference of American Physical Therapy Association Washington, DC

May 1981 Basic Mobilization and Detailed Evaluation of Extremity Dysfunction (E1), Katherine Patla, P.T., Miami, FL

April 1981 Florida Chapter Spring Conference, Daytona Beach, FL

March 1981 Back to Backs: A Comprehensive Approach to the Effective Management of Acute and Chronic Problems, N. Cinquemani, P.T., J. Ciolek, P.T., and B. J. Thomas-Kase, P.T., Fort Lauderdale, FL

February 1981 High Voltage Galvanic Stimulation: Post Graduate Seminar, Stuart Binder, M.M.Sc., P.T. and Larry Shauf, P.T., Fort Lauderdale, FL

December 1980 Practical Interrelationships and Application of Neurophysiology and Therapeutic Exercises, William Gould, Ph.D., P.T., and Martha Wroe, P.T., University of Florida, Gainesville, FL

July 1980 Developing Objectives and Problem Solving Learning Experiences in Clinical Education, Bella May, Ed.D., P.T., and Jill Newman, P.T., Florida International University, Miami, FL

August 1979 Cardiac Rehabilitation: One Step Beyond, Gerald Fletcher, M.D., Fort Lauderdale, FL

April 1979 Clinical Biofeedback Training, S. Wolfe, Ph.D., P.T., Emory University, Atlanta, GA

September 1978 Arthritis Management, Marlin Shields, P.T., Charleston, SC

April 1978 Dogwood Festival Conference, Atlanta, GA

June 1977 The Bobath Approach: Adult Hemiplegia, K. Bobath, M.D. and B. Bobath, Duke University, Durham, NC

Non-Institutional Training: Administration of Higher Education

February 1984 Higher Education Colloquium, University of Miami, Coral Gables, FL
March 1983 Management Development for Professional Women, Jaine Carter, Ph.D., University of Miami, Coral Gables, FL
February 1983 Higher Education Colloquium, University of Miami, Coral Gables, FL
February 1983 Determining Your Management Style: Team Development, Jaine Carter, Ph.D., University of Miami, Coral Gables, FL
January 1983 Faculty Motivation and Morale in an Era of Decline, Cecil Mackey, Pres. of Michigan State University, Melvin D. George, V. Pres. for Academic Affairs & Professor of Mathematics, University of Missouri, Wilbert J. McKeachie, Director of the Center for Research on Learning and Teaching, University of Michigan, Larry A. Braskamp, Head of the Measurement & Research Division, University of Illinois Urbana-Champaign, and Martin L. Maehr, Professor of Educational Psychology, University of Illinois Urbana-Champaign, Clearwater Beach, FL
January 1983 Computer Literacy, University of Miami, Coral Gables, FL
January 1983 Management Skills for Administrators and Supervisors, Jaine Carter, Ph.D., University of Miami, Coral Gables, FL
October 1981 Audiovisuals: State of the Art, Charles G. Hannemann, Ph.D., University of Miami, Coral Gables, FL
August 1981 Burnout: Management and Prevention of Professional Stress Martha Bramhall, M.S.W., Resource Applications, Inc., Miami, FL

CERTIFICATION

South Carolina License #407, June 1977-78
FL License #PT0001205, February 1979 through Present

EXPERIENCE

Instructional:

August 1984 - Present Adjunct Professor, Program in Physical Therapy
University of Miami, Coral Gables, FL

Teaching Responsibilities Include:
Rehabilitation
Electro Diagnosis and Treatment
Therapeutic Exercise

August 1985 - August 1986 Visiting Professor, Department of Physical Therapy
FL International University, Miami, FL

Teaching Responsibilities Included:
Neurorehabilitation
Rehabilitation
Therapeutic Exercise

August 1984 -
May 1985

Adjunct Professor, Department of Physical Therapy
FL International University, Miami, FL

Teaching Responsibilities Included:
Neurorehabilitation
Rehabilitation

January 1981 -
May 1984

Assistant Professor, Program in Physical Therapy
School of Education and Allied Professions
University of Miami, Coral Gables, FL

Teaching Responsibilities Included:
Introduction to Physical Therapy
Communications in Physical Therapy
Coordination of the Pathology Course
Electrical Diagnosis and Treatment
Basic Rehabilitation
Neurophysiological Exercise Techniques
Prosthetics and Orthotics
Coordination of Medical-Surgical Lecture Series

University Committee and Administrative Responsibilities:

HPR Department Awards Committee
Scholarship Committee
School Council
SEAP Undergraduate Reorganization Committee

May 1978 -
October 1978

Part-time Instructor, Physical Therapy Program
Medical University of South Carolina
Charleston, SC

Teaching Responsibilities Included:
Introduction to Physical Therapy
Assisting with the Massage Module
Assisting with the Electrical Modalities Module
Basic Gait Training, Transfers, etc.

Professional:

April 1984-
Present

Co-Owner, Physical Therapy Associates, P.A.
Miami, FL

October 1982 -
May 1984

Physical Therapy Faculty Clinic
University of Miami, Coral Gables, FL

December 1981 -
April 1984

Self-employed P.T. contracting with several community hospitals,
private practice offices, and rehabilitation centers, Coral Gables,
FL

November 1978 - Senior P.T., Clinical Coordinator, CPR Instructor, Cardiac Rehab
December 1980 Team Member, Guest Lecturer for the SMH Speaker's Bureau,
Anti-Smoking Clinic Lecturer on Physical Fitness, and Co-Leader
of Employee Fitness Program, South Miami Hospital, Miami, FL

May 1977 - Staff P.T. specializing in Post-Partum Exercise Program and
November 1978 Employee Inservice Program on Body Mechanics, Roper Hospital,
Charleston, SC

PUBLICATIONS

- Fiebert, I.M., Rosen, E., Wise, H.H. and Rohan, J. Functional Movement
Patterns for the Geriatric Population. Geri-topics, 1987, 10 (2), 12 - 19.
- Fiebert, I.M., Wise, H.H., Pahl, C.P., Kadel, K., and Hays, K. Don't Baby
Your Back. Whirlpool, 1987, 10 (1), 16 - 19.
- Wise, H., Fiebert, I., Kates, J. EMG Biofeedback as Treatment for
Patellofemoral Pain Syndrome. Journal of Orthopaedic and Sports Physical Therapy,
1984 6 (2), 95 - 103.
- Wise, H. H. Florida P.T. Education. 1983 Survey: Prerequisites and Months
of Entry/Graduation at the Florida Programs of Physical Therapy Education.
Update: News from the Florida Physical Therapy Association, 1984, 8 (2).
- Fiebert, I. M., Rohan, R. S., Wise, H. H., Parry, K. Communicating with
Physicians. Clinical Management in Physical Therapy, 1983, 3 (1).
- Wise, H. H., & Fiebert, I. Burnout. Clinical Management in Physical
Therapy, 1983, 3 (3), 14-15.
- Wise, H. H. Florida Physical Therapy Education: A Survey--Prerequisites and
Duration of Study at the Florida Programs of Physical Therapy Education. Update:
News From the Florida Physical Therapy Association, October 1982.

PROFESSIONAL AND HONORARY ORGANIZATIONS

American Physical Therapy Association

1977-Present Active Member

1978-Present Florida Chapter Member

1986-Present Secretary, Florida Chapter

1984-1986 Treasurer, Southeast District

1981-1983 Chairperson, Southeast District

Public Relations-Recruitment

Committee

1981-1982 Education Panel Member

1977-1978 South Carolina Chapter Member

Chairperson, Charleston Area Public Relations

Committee

Section Membership:

1985-Present Private Practice Section

1985-Present OB-Gyn Section

1984-Present Orthopaedic Section

1977-1978

1983-1984 Electrophysiological Section

1981-1984 Education Section

1975-77 Student Member

RESEARCH

Wise, H.H. Physical Therapists with Doctoral Degrees: Job Satisfaction and Organizational Commitment, Doctoral Dissertation, 1984.

Wise, H. H., Kates, J., Leavitt, R., Einspruch, E. The use of Electromyography Biofeedback Immediately Post-Op Arthroscopic Surgery, 1984.

Wise, H. H. & Stein, L. The Effects of Electrical Stimulation of the Extrinsic Tongue Muscles on Patients with Hypotonic Dysarthria, 1982-1984.

Haizlip, H. An Assessment of the Existing Value of Normal for the Adult Woman in the Kendalls' Leg-Lowering Test of Anterior Abdominal Strength. (M.S. Major Project, 1977).

COMMUNITY ACTIVITIES

1986 - Present Member, National Association of Women Business Owners

1984 - Present Member, Goldcoast Deacons Club

1980 - Present Member, Mangowood Association

1979 - Present Wake Forest University Class Agent

1979 - 1984 CPR Instructor, American Heart Association, Miami, FL

1980 - 1982 Member, Volunteer Recruitment Committee, Dade County Special Olympics, Miami, FL

1981 - 1982 Member, Board of Directors, Dade County Special Olympics, Miami, FL

OTHER PROFESSIONAL INFORMATION OR ACTIVITIES

Presentations:

- "EMG Biofeedback as Treatment for Rectal Incontinence"
1986 APTA Annual Conference, Chicago, IL
- "Physical Therapists with Doctoral Degrees: Job Satisfaction and Organizational Commitment"
1985 APTA Annual Conference, New Orleans, LA
- "CVA Rehabilitation for Physical Therapist Assistants"
1985 Sponsored by Broward Community College and the SE District of the Florida Physical Therapy Association, Ft. Lauderdale, FL
- "Student Burnout"
1984 Florida Physical Therapy Student Conclave, Camp Challenge, FL
- "Burnout: Job Hazard for the Health Professions"
1984 Easter Seal Society of Palm Beach, West Palm Beach, FL
1983 North Shore Hospital, Miami, FL
1982 Plantation General Hospital, Plantation, FL
1981 St. John's Nursing & Rehabilitation Center, Lauderdale Lakes, FL
- "Total Management of Back Dysfunction" (with Ira M. Fiebert, Ph.D., P.T.)
1984 Delray Community Hospital, Delray, FL
1983 South Miami Hospital, Miami, FL
- "Therapeutic Electrical Modalities in Physical Therapy"
1983 South Miami Hospital Continuing Education Program, Miami, FL
- "The Role of Exercise in Pulmonary Rehabilitation"
1983 Lung People, American Lung Association, Miami, FL
- "EMG Biofeedback for the Treatment of Chondromalacia Patella"
1983 Physical Therapy Department, Jackson Memorial Hospital, Miami, FL
- "Functional Electric Stimulation"
1983 St. John's Nursing & Rehabilitation Center, Lauderdale Lakes, FL
- "Burnout: Job Hazard for the Teaching Profession"
1983 Fall Chapter Meeting, Florida Association for Health, Physical Education, Recreation, and Dance, Tampa, FL
- "The ES 180"
1983 Imperial Point Hospital, Ft. Lauderdale, FL
1983 Boca Raton Community Hospital, Boca Raton, FL
- "Electrotherapy for Physical Therapist Assistants"
1982 Florida Chapter Spring Conference, Orlando, FL

"CVA Rehab: The Role of Physical Therapy"

- 1981 Nursing and Physical Therapy Employees, Doctor's Hospital, Coral Gables, FL
- 1980 Presentations on behalf of the SMH Speaker's Bureau, Miami, FL
- 1979 South Miami Hospital Physician Continuing Education Program, Miami, FL

"Care of the Back: Proper Body Mechanics"

- 1978 Charleston, Dental Hygienist Association, Charleston, SC

"Fitness Fever: The Importance of a Total Fitness Program"

- 1980 South Miami Hospital Board of Directors, Miami, FL
- 1980 Pyms-Suchman Realtors, Miami, FL
- 1979 - 1980 Anti-Smoking Clinics, South Miami Hospital, Miami, FL

August 1987

VISITING PROFESSORS - OTHER INSTITUTIONS

Alphabetical Listing:

Connolly, Barbara H. - University of Tennessee, Memphis
(Not Available - Summary Announcement enclosed)
Crane, Linda D. - University of New England
Rose, Steven J. - Washington University

THE UNIVERSITY OF TENNESSEE MEMPHIS



The Health Science Center



The University of Tennessee, Memphis is pleased to announce the appointment of Barbara H. Connolly, Ed.D., as Chairman of the Department of Rehabilitation Sciences, College of Allied Health Sciences, effective April 1, 1987. Dr. Connolly joined the faculty of The University of Tennessee, Memphis as an Instructor at the Child Development Center in 1973. While at the Child Development Center she developed numerous clinical affiliations and served as Clinical Instructor for physical therapy students from a number of universities in the South. Additionally, she participated in the education of a wide variety of health professionals taking pre-service and in-service training at the Child Development Center.

In 1973, Dr. Connolly was appointed Assistant Professor of Physical Therapy and in 1982 was promoted to the rank of Associate Professor of Rehabilitation Sciences at The University of Tennessee, Memphis. Dr. Connolly also serves as Adjunct Associate Professor at the University of Mississippi and as Visiting Lecturer at the University of Miami and Memphis State University.

A native of Georgia, Dr. Connolly earned her Bachelor of Science degree in physical therapy from the University of Florida in 1970 and both a Master of Education and Doctor of Education degree from Memphis State University. Her minor area of study in both the Master's and Doctoral degrees was speech language pathology. Dr. Connolly has numerous publications to her credit and recently received the Golden Pen Award from the American Physical Therapy Association in recognition of outstanding contributions to the professional literature.

Dr. Connolly's professional affiliations include membership in the American Physical Therapy Association, American Association on Mental Deficiency, Council for Exceptional Children and Alpha Eta Honorary Society. She serves as a member of the Board of Directors of the American Physical Therapy Association and is a member of the Research Committee of the Arthritis Foundation.

A recognized national leader and an accomplished teacher Dr. Connolly will provide strong leadership for the Department of Rehabilitation Sciences and we are pleased to welcome her as departmental chairman.

James C. Hunt

William S. Hinkle

PERSONAL:

Address: 135 Portland Avenue Unit #304
Beachwoods Condominiums
Old Orchard Beach, ME 04064

Phone: Home: (207) 934-2343
Work: (207) 283-0171 Ext: 322

Social Security: #079-38-1997

Date of Birth: January 14, 1951

Citizenship: United States

EDUCATION:

Graduate	Emory University Atlanta, Georgia	M.M.Sc.	1977
Undergraduate	Ithaca College Ithaca, New York	B.S. (Magna Cum Lauda) in Physical Therapy	1973
High School	R.L. Thomas High School Webster, New York	N.Y.S. Regents High School Diploma	1969

CREDENTIALS:

Board Certified Specialist in Cardiopulmonary Physical Therapy by the American Board of Physical Therapy Specialization (1985 to present)

Physical Therapy Licenses: New York State: #003739
 Georgia: #793
 Connecticut: #2214 (current)
 Alabama: #613
 Maine: #00518 (current)

Certified Instructor Trainer in Basic Life Support: American Heart Association.

Certified ACLS Provider: American Heart Association (3/85 - present)

Certified ACLS Instructor (9/85 - present)

PROFESSIONAL EXPERIENCE:

January 1987 - present Acting Director, Division of Physical Therapy,
University of New England

June 1984 - present Associate Professor, Division of Physical Therapy,
University of New England, Biddeford, Maine

February 1985 - Present Staff Physical Therapist, Mercy Hospital, Portland,
Maine, Per Diem

- April, 1980 - May, 1984 Assistant Professor, Department of Pediatrics, School of Medicine and Division of Physical Therapy, School of Community and Allied Health, University of Alabama in Birmingham, Director of Physical Therapy, Pediatric Pulmonary Center, The Children's Hospital, Birmingham, Alabama.
- Sept., 1979 - April, 1980 Assistant Professor, Department of Physical Therapy, School of Allied Health Professions, University of Connecticut, Storrs, Connecticut
- Jan., 1978 - April, 1980 Clinical Specialist in Cardiopulmonary Physical Therapy, Hartford Hospital, Hartford, Connecticut
- Sept., 1976 - Dec., 1977 Supervisor, Cardiopulmonary Service, Physical Therapy Department, Emory University Hospital, Atlanta, Georgia.
- July, 1973 - July, 1976 Staff Physical Therapist and Senior Physical Therapist, Department of Rehabilitation Medicine, The New York Hospital-Cornell Medical Center, New York, New York

SUPPLEMENTARY EDUCATION:

- April 28-May 1986: NYU Lower Limb Prosthetics Course; New York University, NY, NY.
- Oct. 26 - Nov. 14, 1984: Observation/Externship at MLEMSS Baltimore, MD.
- Sept. 1983: Wound Healing Seminar AL Chapter, APTA, Dadeville, AL
- April 16-17 and February 5-6, 1983: Statistics and Research Design. Two part course taught by Eugen Michels; University of Alabama in Birmingham, Alabama.
- June 2, 1982: Seminar on Constructing a Budget. Presented by Office of Research and Grants Administration, University of Alabama in Birmingham.
- January 15-17, 1982: "Neurorehabilitation Institute" Spain Rehabilitation Center, University of Alabama in Birmingham; (1.6 CEUs).
- May 7-8, 1981: "The Challenge to Affect Behavior" Multipurpose Arthritis Center and Division of Physical Therapy, University of Alabama in Birmingham.
- September 18-19, 1980: "Respiratory Update 1980" Jefferson-Shelby Lung Association, Birmingham, Alabama.
- May 23, 1980: "Intervention Issues and Approaches with Handicapped and at Risk Infants and their Families" Auburn University, Auburn, Alabama.
- May 12, 1979: "Early Intervention of the High Risk Infant," Wallingford, CT, Connecticut Chapter APTA Spring Education Day.
- September 21-22, 1978: Head Trauma Seminar: Hartford Hospital, Rancho Los Amigos Head Trauma Team.

May 31 - June 17, 1978: Training Institute: Rehabilitation of cardiac patients; Sargent College/Boston University, Boston, MA (3 graduate credits)...

May 1975: "Physical Therapy in Acute and Chronic Pulmonary Disorders," New York University, New York, New York.

February, 1974: "The Heart," American Physical Therapy Association; Atlanta, Georgia.

June, 1973: "The Total Care of the Patient with Chronic Obstructive Pulmonary Disease"; SUNY at Buffalo, Buffalo, New York.

FACULTY ACTIVITIES:

Academic Advising Committee, University of New England, 1986, 1987

Health Promotions Committee, University of New England, Fall, 1986

Director of Physical Plant Search Committee, University of New England, Fall, 1986

Appointed to NEASC Accreditation Advisory Committee, University of New England, October 1985.

Curriculum and Education Policies Committee of Faculty Senate of University of New England, 1985, 1986, 1987

Honors Committee of Undergraduate Colleges of University of New England, 1985, 1986, 1987

Student Academic Policies Committee and Curriculum Committee: Division of Physical Therapy, University of New England, 1984.

Graduate Admissions Sub-Committee; Division of Physical Therapy, University of Alabama in Birmingham: 1981, 1982, 1983.

Curriculum Committee; Division of Physical Therapy, University of Alabama in Birmingham: 1981, 1982, 1983, 1984.

Chairman and Member of numerous graduate (M.S.) research/thesis committees University of Alabama in Birmingham, (UAB).

Clinical Education Advisory Committee: 1982, 1983 University of Alabama in Birmingham.

SCAH Honors and Awards Committee; School of Community and Allied Health, University of Alabama in Birmingham: 1983.

CONSULTANT ACTIVITIES:

December 8, 1982: Pediatric pulmonary consultation for Diagnostic and Guidance Center, Montgomery, Alabama.

June 17, 1982: Workshop/Consultation "Pediatric Pulmonary Physical Therapy" for Department of Physical Therapy, Children's Hospital of Los Angeles, Los Angeles, California.

June- August, 1981: Lakeshore Hospital, Birmingham, Alabama follow-up consultation and series of lecture/demonstrations for multidisciplinary team preparation for new pulmonary rehabilitation program.

April 22-23, 1981: Lakeshore Hospital, Birmingham, Alabama, Workshop with Donna Frownfelter, R.P.T., on planning and implementing a pulmonary rehabilitation program.

RESEARCH ACTIVITIES:

"Comparison of Bronchial Drainage, forced expiratory techniques and cough alone during acute pulmonary exacerbation in patients with cystic fibrosis" (initiated data collection at Children's Hospital, Birmingham, AL).

"Comparison of chest physical therapy techniques in infants with hyaline membrane disease." Thesis completed as part of requirement for M.M.Sc. degree, Emory University, 1967-1977.

PUBLICATIONS:

Crane LD: Cardiorespiratory Management of the High Risk Neonate: Implications for developmental therapists. Physical Therapy and Occupational Therapy in Pediatrics. Vol 6, nos 3/4 Fall/Winter, 1986.

Crane LD: Chest Examination. Physical Therapy in Health Care. Vol 1 (2), Summer, 1987 (accepted for publication)

Crane, LD: The Neonate and Child, Chapter 20 in Frownfelter, DL (ed) Chest Physical Therapy and Pulmonary Rehabilitation, 2nd ed. Chicago, Year Book Medical Publishers, ~~(in press Spring, 1987)~~ 1987.

Crane LD, Evans J, Knight P, Cassady G & Phillips J: Effects of Positioning on Transcutaneous Carbon Dioxide in Neonates with Respiratory Distress Submitted for publication: J. Pediatr.

Crane, LD: Chest Physical Therapy for Neonates with Pulmonary Disease Chapter 7 in Irwin, S. and Tecklin, Cardiopulmonary Physical Therapy, St. Louis, C.V. Mosby Company, 1985.

Crane, LD: Physical Therapy for Neonates with Respiratory Dysfunction. Physical Therapy, 60(12): 1764-1773, 1981.

Abstract: Crane LD, Zombek, M, Krauss AN, and Auld PAM: Comparison of Chest Physiotherapy Techniques in Infants with Hyaline Membrane disease. Pediatric Research. 2(4) Part 2 of 2 parts, April, 1978, 559

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES AND ASSOCIATIONS:

American Physical Therapy Association: 1970-present

Cardiopulmonary Section of the American Physical Therapy Association: 1975-present

American Heart Association: 1980-present

American Thoracic Society: 1983-present

Cardiopulmonary Special Interest Group of Southern Maine: 1985-present

PROFESSIONAL AND SCIENTIFIC MEETINGS/CONFERENCES ATTENDED:

Invited to participate in symposium "Priorities for Physical Therapy in Maternal and Child Health." University of North Carolina at Chapel Hill. Supported by Grant 149 Dept. of HHS. January 25-28, 1987.

Fifth Annual Meeting of Pediatric Pulmonary Centers: March 21-23, 1984, New Orleans.

Annual conference of the American Physical Therapy Association: 1979-1986.

Combined Sections Meetings, American Physical Therapy Association, 1979-1987.

Third Annual Meeting of Pediatric Pulmonary Centers: November 22-24, New York, New York.

Annual Conference of the American Association of Respiratory Therapy, October 30 - November 2, 1982.

PAPERS PRESENTED:

February 14, 1987: CSM Atlanta, GA, presented paper: see 4th publication.

February 13, 1987: Combined Sections Meeting, Atlanta, GA, spoke as part of program on Futuristic Curricula for Physical Therapists Section for Education program.

September 19-21, 1986: Springfield, MO, invited speaker (2 days) "Physical Therapy in Acute Care: The Cardiopulmonary Connection."

April 19-20 1986: Cromwell, CT, Invited speaker for program titled "Cardiopulmonary Care and the ICU."

March 20-22, 1986: Baltimore, MD Lecture and workshop on "Evaluation and Treatment of the Neonatal Pulmonary Patient" at symposium: Physical Therapy for Trauma/Critically Ill Patients.

November 17-18, 1984: Portland Maine. "A Practical Approach to Cardiopulmonary Patient Care" Maine Chapter APTA Fall Meeting.

April 5, 1984: Columbus Ohio, "A Practical Approach to Cardiopulmonary Aspects of Patient Care" Ohio chapter APTA annual meeting.

March 15-17, 1984: Baltimore MD: presented a lecture and a workshop: "Evaluation and Treatment of the Neonatal Pulmonary Patient" at symposium titled Physical Therapy Care of the Critically Ill Patient.

June 15, 1983: Kansas City, Missouri; A.P.T.A. Annual Conference, presented paper on entry-level cardiopulmonary competencies at an "Open Forum post baccalaureate entry level education - current and future stages of development and implementation."

- February 12, 1983: Nashville, Tennessee A.P.T.A. Combined Sections Meeting. Presented two papers: "Lung pathology in the neonate" and "Pre- and post-op care for the pediatric patient" for program titled: "Pediatric Cardiopulmonary Physical Therapy.
- September 22, 1982: Presentation "Scientific and clinical rationale for chest physical therapy techniques" Respiratory update seminar sponsored by the American Lung Association of Alabama, Birmingham, Alabama.
- August 5-7, 1982: Presented position paper on "entry-level cardiopulmonary and pulmonary competencies for physical therapy educational programs" at workshop: Content for Physical Therapy Entry Level Education Program, St. Louis, Missouri.
- May 15-16, 1982: Co-presented a workshop titled "A practical approach to cardiopulmonary aspects of patient care" Alabama Chapter Meeting of the American Physical Therapy Association, Dadeville, Alabama.
- May 6, 1982: Presentation "Bronchial drainage and breathing exercise techniques for patients with chronic lung disease" Pulmonary Rehabilitation workshop sponsored by Baptist Medical Center-Princeton, Birmingham, Alabama.
- February 14, 1982: San Diego, APTA Combined Sections Annual Conference. "Model for curriculum planning and evaluation in an interdisciplinary training program in pediatric pulmonary care."
- February 13, 1982: San Diego APTA Conference (see above) "Chest Physical Therapy Assessment" (part of a preconference instructional course titled "Chest Physical Therapy").
- March 25, 1981: Northeast Regional Medical Center, Anniston, Alabama "Pediatric Chest Physical Therapy" part of a full day inservice program by the PPC team titled "Acute Respiratory Disease in Children Practical Considerations." Repeated November 17, 1982 Gadsden, Alabama and April 7, 1983 Montgomery, Alabama.
- February 24, 1981: Reno, Nevada, APTA Combined Sections Annual Conference. "Critical Care in Cardiopulmonary Dysfunction: Physical Therapy Management of the Infant and Child."
- February 19 - March 24, 1980: Capitol Area Health Consortium; Hartford, Connecticut. Continuing education program: Series of 5 lecture/seminars titled: "Topics in Cardiopulmonary Physical Therapy."
- March 4, 1979: Inservice "Cardiac Rehabilitation" to OR and Recovery Room staff of Hartford Hospital.
- June 12, 1979: Comparison of chest physical therapy techniques in infants with hyaline membrane disease. Presentation of research paper, National Conference, American Physical Therapy Association, Atlanta, Georgia.
- February 11-12, 1979: "Pediatric Respiratory Care," preconference workshop for combined Pediatric and Cardiopulmonary Sections. San Francisco, California.
- November 3, 1978: Fall Education Conference CT Chapter APTA. Title: "Cardiopulmonary Considerations of Patient Care: An Overview."

March, 1978: CT, Chapter APTA, educational program: Title: "CPT an Overview: Assessment and Treatment of the Acute Surgical, Chronic, and Pediatric Patient."

December, 1976; May 1977: Emory University School of Nursing; Topic, "Chest Physical Therapy."

June 15, 1976: New York Lung Association, Topic: "Pediatric Respiratory Care" (workshop).

APPOINTED AND ELECTED POSITIONS:

Elected Chief Delegate for the Maine Chapter APTA, 1986-1988.

Appointed to Pulmonary Rehabilitation Advising Committee for Lifeline Pulmonary Rehabilitation Program January, 1987.

Appointed as member of the Editorial Board of Physical Therapy in Health Care (Hayworth Press) 1984-1987.

Appointed to Education Committee of Alabama Chapter, APTA, May 1983.

Manuscript Reviewer (appointed) for Physical Therapy, Journal of the American Physical Therapy Association, 1983-to present.

Delegate to American Physical Therapy Association House of Delegates (elected or appointed):

1984-1986: Cardiopulmonary Section

1982 & 1983: Alabama

1979 & 1980: Connecticut

Chairman, Cardiopulmonary Section of the APTA (elected): 1982-1984; 1984-1986.

Program Committee Chairman, Cardiopulmonary Section, APTA, (appointed): 1980-1982.

Member of Cardiopulmonary Specialty Competencies Task force 1979 - 1982

HONORS AND AWARDS:

Teacher of the Year: University of New England, College of Health Sciences, 1984 - 1985

Clinical Faculty Appointment, University of Connecticut, School of Allied Health Profession, January, 1979: Assistant Clinical Professor.

Dean's Award: Ithaca College, 1973.

Biography Included in Who's Who Among American Colleges and Universities, 1972 and 1973.

Nominated from Ithaca College for the Mary McMillan Scholarship (1972) APTA.

CURRICULUM VITAE

Name of Educational Program and Institution:

Program in Physical Therapy
Washington University School of Medicine

Date: July 18, 1986

Name: Steven J. Rose

Address: 1724 Rose Arbor Drive
Creve Coeur, MO 63141

Telephone: (314)432-3170 (Home)
(314)362-3670 (Work)

Date of Birth: June 21, 1939

Birthplace: New York, City, NY

Education:

Ithaca College/Albert Einstein College
of Medicine
Bronx, New York
Duration of Study (1958-1962)
Physical Therapy
B.S., Cum Laude

Yeshiva University/Sue Goldring Graduate
Division of Medical Sciences
Albert Einstein College of Medicine
Bronx, New York
Duration of Study (1970-1977)
Neuroscience
Ph.D.

Dissertation Title: THE FINE STRUCTURAL CORRE--
LATES OF TRANSMITTER SECRETION AT THE FROG
NEUROMUSCULAR JUNCTION

Advisor: G.D. Pappas, Professor of Anatomy,
Neurosciences, Albert Einstein
College of Medicine
Bronx, New York

Licensure Information/Registration Number:

New York	1962	-	#1898
Missouri	1969	-	#R3-40

Employment and Positions Held:

Staff Physical Therapist
Bronx Municipal Hospital Center
Jacobi Hospital
Bronx, New York
September, 1962 - January, 1964

Data Analyst-Electromyography & Cystometry
of the Neurogenic Bladder - Research Project
Department of Rehabilitation Medicine
Albert Einstein College of Medicine
Bronx, New York
1962 - 1965

Lecturer in Anatomy
Ithaca College, Jacobi Hospital
Bronx, New York
January, 1964 - August, 1965

Part-time Physical Therapist
H.I.P. Insurance Group
New York, New York (lower Manhattan, Gramercy)
1964 - 1966

Supervisor in Physical Therapy
Bronx Municipal Hospital Center
Van Etten Hospital
Bronx, New York
January, 1964 - January, 1965

Supervisor in Physical Therapy
Bronx Municipal Hospital Center
Jacobi Hospital
Rehabilitation Wards
Bronx, New York
January, 1965 - August, 1965

Instructor, Program in Physical Therapy
Downstate Medical Center
Assisted in initiation of Program
(curriculum design & development of program)
Teaching responsibilities: Introduction to
Gross Anatomy Laboratory, Kinesiology, Tests
& Measurements. Course Coordinator & special
lectures in Research Methodology
1965 - 1968

Self-employed Physical Therapist
Peekskill, New York
1968 - 1970

Director of Physical Therapy
Westlodge Nursing Home
Peekskill, New York
1968 - 1970

Medical Staff
Peekskill Community Hospital
Peekskill, New York
1968 - 1970

Assistant Professor
Division of Physical Therapy
Ithaca College
Bronx, New York
Teaching responsibilities: Gross Anatomy
Advanced Therapeutic Exercise, Physical
Therapy Modalities
1970 - 1976

Contingency Physical Therapist
Albert Einstein College of Medicine
University Hospital
Bronx, New York
1970 - 1976

Graduate Teaching Assistant
Albert Einstein College of Medicine
Teaching Responsibilities: Gross Anatomy,
Laboratory & Histology Laboratory for first
year Medical Students
1970 - 1973

Examiner
New York State Oral-Practical Examination
Physical Therapy Board
1973 - 1975

Instructor
Program in Physical Therapy
New York University
Teaching responsibilities: Gross Anatomy &
Neuroanatomy & Supervisor of Laboratory
(4 credits each)
Summer, 1973

Instructor
Program in Physical Therapy
New York University
Teaching responsibilities: Gross Anatomy &
Neuroanatomy & Supervisor of Laboratory
(4 credits each)
Summer, 1974

Clinical Associate Professor
State University of New York at Buffalo
Department of Physical Therapy
September, 1975 - June, 1976

Associate Professor and Chairman
State University of New York at Buffalo
Department of Physical Therapy
June, 1976 - June, 1979

Senior Physical Therapy Consultant
Washington University School of Medicine
Irene Walter Johnson Institute of Rehabilitation
February, 1980 - June, 1982

Associate Professor and Director
Washington University School of Medicine
Program in Physical Therapy
July, 1979 - present

Co-Director, Physical Therapy Department
Irene Walter Johnson Institute of Rehabilitation
Washington University School of Medicine
June, 1982 - present

Membership in Scientific/Professional/Honorary Societies:

American Physical Therapy Association
New York Chapter
1962-1970, 1975-1979
Missouri Chapter, 1979 - present

Northwestern Physical Therapy Educators
1973 - 1975

American Association for the Advancement of
Science
1976 - present

Positions Held in Scientific/Professional/Honorary Societies:

New York Chapter, APTA, Greater New York Dist.
Co-Chairman, Membership & Recruitment, 1964 (appt)
Chairman, Public Relations, 1965 (appointed)
District Director, 1965-1967 (elected)
District Chairman, 1967-1968 (elected)

New York Chapter, APTA
Chairman, Task Force to Form Research Committee
1977 (appointed)
Chairman, Research Committee
1978-1979 (appointed)

American Physical Therapy Association
(National)
Member, Committee on Research
1978 - 1980

Associate Editor, Physical Therapy
1980 - 1983

Vice-Chairman, Section on Research, APTA
1980 - 1982

Missouri Chapter, APTA
Chairman, Committee on Research
1980 - 1982

Chairman, Section on Research
1984 - 1986

Consultative and Advisory Positions Held:

Consultant to the Dean of the School of Allied
Health
State University of New York at Stony Brook
Job responsibilities: Integration of Basic
Science
Curriculum with Allied Health Curriculum
December, 1975 - June, 1976

Erie County Health Department
Physical Therapy Advisory Committee
May, 1977 - 1979

External Evaluator for Doctoral Degree
Program in Physical Therapy
New York University
March 27-28, 1978

Member
Peer Review Panel - NIHR
1983

Review Committee in Physical Therapy
State of Louisiana
Board of Regents - 1983

Chairman
Research Awards Committee
Foundation for Physical Therapy
1982 - Present

Member, Examination Committee
Orthopedic Specialty Council, Board for
Certification of Advanced Clinical Competence
1983 - Present

Consultant to the Clinical Center of the National
Institutes of Health - Physical Therapy
1983 - Present

Member
Physical Therapy Assistant Advisory Committee
St. Louis Community College
1983 - Present

Consultant, Scientific Review Committee
Rehabilitation Eng. Center/Low Back Pain
University of Vermont
1984 - Present

Member
President's Advisory Council on University
Relations
American Physical Therapy Association
1984 - Present

Community Activities:

Board of Directors
Arthritis Foundation of Western New York
January, 1978 - June, 1979

Vice-President
National Handicapped Sports & Recreation Assoc.
Western New York Chapter
January, 1978 - June, 1979

Board of Trustees
Foundation for Physical Therapy
1984 - Present

Publications:

Journal Articles:

Politoff, A., Rose, S.J., Pappas, G.D., "The Calcium Binding Sites at the Frog Neuromuscular Junction." Journal-Cell Biology, Vol. 61, No. 3, pp. 88-123.

Politoff, A., Blitz, A.L., Rose, S.J., "Incorporation of Acetylcholinesterase Into Synaptic Vesicles is Associated with Blockage of Synaptic Transmission." Nature, Vol. 256, pp. 324-325. July 24, 1975.

Pappas, G.D., Rose, S.J., "Localization of Calcium Deposits in the Frog Neuromuscular Junction at Rest and Following Stimulation." Brain Research, Vol. 103, pp. 362-365. 1976

Rose, S.J., Pappas, G.D., and Kriebel, M.E., "The Fine Structure of Identified Frog Neuromuscular Junctions in Relation to Synaptic Activity." Brain Research, Vol. 114, No. 2, pp. 213-233. 1978

Wallis, I., Koenig, I.E., and Rose, S.J., "The Preparation of a Sarcolemmal Fraction from Evacuated Muscle Slices." Biochemical Biophysical Acta, Vol. 599, pp. 505-517. 1980

Rose, S.J. and Rothstein, J.M., "Muscle Biology and Physical Therapy: An Historical Perspective" Physical Therapy, 12:1754-1756, 1982

Rose, S.J. and Rothstein, J.M., "Muscle Mutability: General Concepts and Adaptations to Altered Patterns of Use;" Physical Therapy, 12:1773-1787, 1982

Gossman, M.R., Sahrman, S.A., and Rose, S.J., Review of Length Associated Changes in Muscle: Experimental Evidence and Clinical Implications." Physical Therapy, 12:1799-1808, 1982

Rothstein, J.M. and Rose, S.J., "Muscle Mutability: Adaptation to Drugs, Metabolic Factors and Aging". Physical Therapy, 12:1788-1798, 1982

Rothstein, J.M., Delitto, A., Sinacore, D.R., and Rose, S.J., "Muscle Function in Rheumatic Disease Patients Treated with Corticosteroids." Muscle and Nerve, 6:126-133, 1983

Rothstein, J.M., Delitto, A., Sinacore, D.R., and Rose, S.J., "Electromyographic, Peak Torque and Power Relationships During Isokinetic Movement." Physical Therapy, June, 1983

Sinacore, D.R., Rothstein, J.M., Delitto, A., and Rose, S.J., "Effect of Damp on Isokinetic Measurements". Physical Therapy, August, 1983

Brown, M. and Rose, S.J., "The Effects of Aging and Exercise on Skeletal Muscle: Clinical Considerations." Topics in Geriatric Rehabilitation, Vol. 1, No. 1, Oct., 1985

Rose, S.J.: "Description and Classification: The Cornerstones of Pathokinesiologi- cal Research." Physical Therapy, Vol 66(3), March, 1986

Rose, S.J., Shulman, A.D., and Strube, M.J.: Functional assessment of patients with low back syndrome. An analysis of selected conceptual and methodological issues Topics in Geriatric Rehabilitation, Vol 1(3), 1986

Hart, D.L. and Rose, S.J., "Reliability of a Non-Invasive Method for Measuring the Lumbar Curve." Journal Ortho & Sports, Phys. Ther. - in press, 1986

Gossman, M.R., Rose, S.J., Sahrman, S.A., and Kotholi, C.R., "Length and Circumference Measures in One-Joint and Multi-joint Muscles in Rabbits After Immobilization." Physical Therapy. April, 1986, Vol 66(4)

Delitto, A. and Rose, S.J.: Comparative Confort of 3 Waveforms Used in Electrically Eliciting Quadriceps Muscle Contractions. Accepted for publication, Physical Therapy, November, 1986.

In Review Process

Mueller, M.J. and Rose, S.J.: Physical Therapy Director as the Professional Value-Setter. Physical Therapy. 1986

McDonnell, M.K., Delitto, A., Sinacore, D.R., and Rose, S.J.: An Electrically-Elicited Fatigue Test of the Quadriceps Femoris Muscle: Description and Reliability. Physical Therapy. 1986

Delitto, A., McKowen, J.M., McCarthy, J.A., Shively, R.A., and Rose, S.J.: Electrically Elicited Cocontraction of the Quadriceps and Hamstrings in Patients with Anterior Cruciate Ligament Surgery: A Description and Case Report. Physical Therapy. 1986

Published Abstracts:

Politoff, A., Rose, S.J., Pappas, G.D., "Calcium Binding Sites in Synaptic Vesicles." Biological Bulletin. October, 1973.

Rose, S.J., Pappas, G.D., Kriebel, M. and Tousmis, "Evidence for the Synaptic Vesicles Calcium Binding Site at the Neuromuscular Junction of the Frog Sartorius." Biological Bulletin, Vol. 147, No. 2, pp. 495-496. October, 1974

Kriebel, M.E., Pappas, G.D., and Rose, S.J., "The Relationship Small Mode Miniature Endplates Potentials and Quantal Content of Evoked Responses in Frog Neuromuscular Junction." Biological Bulletin, Vol. 147, October, 1974

Politoff, A., Blitz, A., and Rose, S.J., "Exogenous Acetylcholinesterase: Effects of Synaptic Transmission at the Neuromuscular Junction of the Frog *Sartorius*." Biological Bulletin, Vol. 147, No. 2, pp. 494.

Pappas, G.D., Rose, S.J., Kriebel, M., "Dynamic Aspects of the Calcium Binding Sites in Synaptic Vesicles in the Frog Neuromuscular Junction." XXVI International Congress of Physiological Sciences - 1974 Jerusalem Satellite Symposia - Mechanism of Synaptic Action, pp. 41. October, 1974

Previte, A., Rose, S.J., and Politoff, A.L., "The Incorporation of an Exogenous ATP-ase (apyrase) into the Synaptic Vesicles of the Frog *Sartorius* Neuromuscular Junction Causes Block of Synaptic Transmission and Vesicle Depletion." Biological Bulletin, October, 1975

Pappas, G.D. and Rose, S.J., "The Fine Structure of a Chemical Synapse in Relation to Function." Presented at Symposium on: Molecular Architecture of the Synapse at American Society of Neurochemistry. Vancouver, British Columbia, CANADA. March 15, 1976.

Rose, S.J., Pappas, G.D., and Kriebel, M.E., "Synaptic Vesicle Population in Visually Identified Motor Endplates Following Stimulation." Presented at 1st International Symposium on Cell Biology. September 9, 1976.

Kraft, G., Scheider, D., Sawner, K., and Rose, S.J., "The Design and the Influence of the Physical Therapy Department in a Primary Health Care Environment: It's Implications for the Future: World Confederation for Physical Therapy. Eighth International Congress. Tel Aviv, Israel, June, 1978.

Kraft, G.S., Scheider, D.A., and Rose, S.J., "Primary Health Care: A New Role for Physical Therapy." Physical Therapy, May, 1979

Deusinger, R.H., Rose, S.J., and Green, G.A., "The Isokinetic Method: Reliability in Rheumatoid Arthritis." Physical Therapy, May, 1979

Deusinger, R.H., Rose, S.J., Green, G.A., and Kennedy, A.C., "Measurement of Isokinetic Motion of the Knee in Rheumatoid Arthritis." Arthritis Foundation Annual Scientific Meeting, Allied Health Profession Section. June, 1979

Rose, S.J., Norton, B.A., and Kelley, D.O., "An Electromyographic Analysis of the McKenzie Press-up and Extension in Standing Exercises." Physical Therapy, May, 1981

Delitto, A., Rothstein, J.M., Sinacore, D.R., and Rose, S.J., "An Analysis of Muscle Activity and Biomechanical Measures During Isokinetic Movement." Physical Therapy, May, 1981.

Rothstein, J.M., Delitto, A., Sinacore, D.R., Deusinger, R.H., and Rose, S.J., "Effect of Corticosteroid Therapy on Selected Elements of Muscle Function in Patients with Rheumatic Disease." Physical Therapy, May, 1981

Sinacore, D.R., Rothstein, J.M., Delitto, A., and Rose, S.J., "Cybex II Performance Characteristics: The Effect of Damp Settings and Load on Measurement." Physical Therapy. May, 1981

Rothstein, J.M., Delitto, A., Sinacore, D.R., Rose, S.J., and Hahn, B.H., "A Non-invasive Technique for Characterizing Muscular Deficits Due to Steroid Induced Myopathy: Isokinetic Measurements of Power." Meeting of the American Rheumatism Association, 1981

Delitto, A., Rothstein, J.M., and Rose, S.J.: Effect of Knee Joint Position on EMG Activity of Isometric Quadriceps Femoris Muscle Contractions. Physical Therapy 62:642, 1982

Rose, S.J., Hart, D.L., and Rothstein, J.M., "Electromyographic Analysis of Forward Bending." Physical Therapy. May, 1982

Hart, D.L. and Rose, S.J., "Reliability of a Non-invasive Method for Measuring Lumbar Curve." Physical Therapy. May, 1982

Hart, D.L. and Rose S.J., "Kinematic Analysis of Forward Bending." Physical Therapy. May, 1982

Deusinger, S. and Rose, S.J., "A Community-Based Model for Faculty Clinical Practice." Physical Therapy. May, 1982

Delitto, A., Gossman, M.R., and Rose, S.J.: Direct Versus Indirect Measures of Hamstring Length. Physical Therapy 63:763, 1983

Gossman, M.R., Delitto, A., and Rose, S.J., "Relationship Between Muscle Length and Torque Production in Hamstrings." Physical Therapy. May, 1983

Gossman, M.R., Rose, S.J., and Sahrman, S.A., "Length-Associated Changes in A One-joint and a Multi-joint Muscle in Rabbits." Physical Therapy. May, 1983

Lewis, S.K., Ericson, G.C., Rose, S.J., Zuelzer, W., and Fox, E.L., "Histochemical Correlates to Isokinetic Torque-Velocity Adaptations." Physical Therapy. May, 1983

Lewis, S.K., Rose, S.J., Ericson, G.C., Zuelzer, W., and Fox, E.L., "Extreme Fast-Speed Training Also Induces Speed-Specificity of Exercise." Physical Therapy. May, 1983

McDonnell, M.K., Delitto, A., Sinacore, D.R., and Rose, S.J.: Reliability of an Electrically Elicited Fatigue Test. Physical Therapy 64:756, 1984

Cibulka, M.T., Rose, S.J., Delitto, A., and Sinacore, D.R.: A Comparison of Two Treatments for Hamstring Strain. Physical Therapy 64-750, 1984

Rose, S.J., Strube, M., and Shulman, A.: "Low Back Syndrome: An Analysis of Functional Limitations." Physical Therapy. May, 1984

Rose, S.J., Boyajian, D., Turman, J., and Norton, B.J.: "EMG Analysis of Forward Bending Patients with Low Back Syndrome." Physical Therapy. May, 1984

Haralson, J. and Rose, S.J.; "Use of Program Evaluation Techniques in a Low Back Program." Physical Therapy. May, 1984

Gossman, M.R., Clendaniel, R.A., Delitto, A., Katholi, C.R., and Rose, S.J.: "Relationship of Torque and Inherent Hamstring Muscle Length." Physical Therapy. May, 1984

Strube, M., White, A., Rose, S.J., and Shulman, A.: A comparison of four measures for the assessment of functional disability in low back syndrome patients. Arthritis Health Professions Association Meeting, Nov. 7-9, 1985

Clendaniel, R.A., Gossman, M.R., Katholi, C.R., Delitto, A., and Rose, S.J., "Hamstring Muscle Length in Men and Women: Normative Data." Physical Therapy. May, 1984

Kaiser, R.K., Rose, S.J., and Apts, D.W., "An Electromyographic Analysis of Two Techniques for Squat Lifting." Physical Therapy. June, 1985

Rose, S.J., Apts, D., Strube, M., and Shulman, A., "Identification of Work Tasks Related to Back Pain in Coal Miners." Physical Therapy. June, 1985

Delitto, A. and Rose, S.J., "Comparative Comfort of Three Waveforms for Muscle Stimulation." Physical Therapy. June, 1985

Mueller, M.J., Kaiser, R., Norton, B.J., and Rose, S.J., "Reliability of a Test to Measure Length of Hip Flexor Muscles." Physical Therapy. June, 1985

Gogia, P., Braatz, J.H., and Rose, S.J., "Validity and Reliability of Goniometric Measurements at the Knee." Physical Therapy. June, 1985

Deusinger, R.H. and Rose, S.J., "Analysis of External Oblique EMG Activity During Back Extension." Physical Therapy. June, 1985

Rose, S.J., Strube, M., and Shulman, A., "Reliability of a Functional Assessment Inventory for Patients with Low Back Syndrome." Physical Therapy. May, 1986

Smith, J.A., Reisman, M.A., and Rose, S.J., "Patient Compliance with Prescribed Exercise Programs." Physical Therapy. 1986

Dueker, J.A., Mueller, M.J., Tenhula, J.A., and Rose, S.J., "Reliability of the Ober Test in Patients with Low Back Pain." Physical Therapy. 1986

Strube, M., White, A., Shulman, A., and Rose, S.J., "A Comparison of Four Functional Disability Measures for Low Back Syndrome Patients." Physical Therapy. 1986

Delitto, A., Toporek, F.A., Rose, S.J., and Apts, D.W., "An Electromyographic Analysis of Two Styles for Lifting A Load." Physical Therapy. 1986

Delitto, A., Rose, S.J., and Apts, D.W., "An Electromyographic Analysis of Two Styles for Lowering a Load." Physical Therapy. 1986

Rose, S.J., Strube, M., and Shulman, A., "Reliability of a Functional Assessment Inventory for Patients with Low Back Syndrome." Physical Therapy. 1986

Mueller, M.J., Dueker, J.A., Tenhula, J.A., and Rose, S.J., "Reliability of a Test to Measure Length of Hip Flexor Muscles in Patients with Low Back Pain." Physical Therapy. 1986

Roach, K.E., Delitto, A., Mueller, M.J., and Rose, S.J., "Reliability of a Method for Measuring Upper Abdominal Strength in Patients with Low Back Pain." Physical Therapy. 1986

Roach, K.E., Delitto, A., Hall, C.M., and Rose, S.J., "Reliability of an Indirect Measure of Hamstring Length in Patients with Low Back Pain." Physical Therapy. 1986

McDonnell, M.K. and Rose, S.J., "EMG Activity of Lumbar Erector Spinae Muscles During Sidebending." Physical Therapy. 1986

Delitto, A. and Rose, S.J., "Electrical Stimulation of Hamstrings in a Patient with Anterior Cruciate Ligament Insufficiency: A Single Case Design." Physical Therapy. 1986

Cibulka, M.T., Delitto, A., Sinacore, D.R., Rose, S.J.: Hamstring Strain Treated by Mobilizing the Sacroiliac Joint. Phys Ther, August, 1986

In Review Process

Mueller, M.J. and Rose, S.J.: Physical Therapy Director as the Professional Value-Setter. Physical Therapy. 1986

McDonnell, M.K., Delitto, A., Sinacore, D.R., and Rose, S.J.: An Electrically-Elicited Fatigue Test of the Quadriceps Femoris Muscle: Description and Reliability. Physical Therapy. 1986

Delitto, A., McKowen, J.M., McCarthy, J.A., Shively, R.A., and Rose, S.J.: Electrically Elicited Cocontraction of the Quadriceps and Hamstrings in Patients with Anterior Cruciate Ligament Surgery: A Description and Case Report. Physical Therapy. 1986

Scientific and Professional Presentations:

"Gait Training of the Lower Extremity Amputee"
New York University School of Prosthetics
Orthotics
September, 1966 - November, 1966

"The Neurophysiological Principles Involved in the Treatment of the Brain Damaged Patient"
Ithaca College
Continuing Education Courses
September, 1966

"Neurophysiological Rationale for the Treatment of the Hemiplegic"
Rhode Island Chapter, American Physical Therapy Association
Two-day Workshop
September, 1972

"Neurophysiological Rationale & Treatment of Brain Damaged Patients"
Lecture and Demonstration
Rhode Island Chapter, American Physical Therapy Association
One-day Workshop
September, 1973

The Back and Physical Therapy Treatment: Anatomical & Biochemical Considerations
Educational Institute
Greater New York District
American Physical Therapy Association
October 6, 1973

New Jersey Chapter American Physical Therapy Association
Lecture: Neurophysiological Principles of Treatment of Brain Injured as Related to P.N.F. Techniques.
October 21, 1974

Ithaca College Continuing Education Program
Anatomy for Physical Therapists
Lecture: Cellular Basis of Physical Therapy Practices
September, 1974 - December, 1974

Basic Neurophysiological Principles in Treatment of the Brain Damaged
New Jersey
Physical Therapy Association
Annual Meeting
May 18, 1974

Pennsylvania Chapter Annual Meeting American Therapy Association
Lecture: Fine Structure Correlates of Therapeutic Exercise
April, 1976

Clinical Neurobiology: A Review and Update
A 9 Session Continuing Education Course
Department of Physical Therapy
SUNY/B
September 27 - November 22, 1977

Clinical Neurobiology: A Review and Update
New York Chapter, APTA
White Plains, New York
December 10-11, 1977

The Physical Therapist as a Consumer of Research
New York State Society for Continuing Education
1st Annual Meeting
December, 1978

Some Neurobiological Aspects of Motor Behavior
Implications for Treatment and Functional Recovery
Department of Physical Therapy
SUNY/B
December, 1978

Second Annual Spring Conference in the Movement
Sciences
Recovery of Motor Function Following Brain Damage
Lecture: Considerations of Muscle Fiber Type
Mutability in Therapeutic Exercise
A Review of the Literature
Teachers College/Columbia University
March 9-13, 1979

Research and Clinical Practice
New York Chapter (APTA)
Southern Tier District
March, 1979

Joint Receptors
Eastern District Meeting
Missouri Chapter, APTA
March, 1980

Joint Receptors - Changing Ideas?
Missouri Chapter Meeting
April, 1980

A Consideration of the Morphophysiological Aspects
of Joints: Implications for Physical Therapy
Invited Speaker, National Conference, APTA
Phoenix, Arizona
June, 1980

Some Neurobiological Aspects of Motor Behavior
School of Health Related Sciences/The Chicago
Medical School
Chicago, Illinois
August, 1980

Joint Receptors: Do They Do It All?
The Third Annual Orthopedic Physical Therapy
Conference
University of Cincinnati Department of
Orthopedic Surgery
Cincinnati, Ohio
September, 1980

Some Neurobiological Aspects of Motor Behavior
Massachusetts Chapter, MPTA
Boston, Massachusetts
September, 1980

Some Neurobiological Concepts of Motor Control:
Implications for Physical Treatment
Wisconsin/Illinois Chapter Meeting
Lake Geneva
October, 1980

A Consideration of the Morphophysiological Aspects
of Joints: Implication for Physical Therapy
Orthopedic Section, Combined Sections Meeting,
APTA
Reno, Nevada
February, 1981

Neurobiological Aspects of Movement Control:
Implications for Treatment
St. Francis Medical Center
Lynwood, California
March, 1981

Some Neurobiological Aspects of Motor Behavior
Texas Woman's University
Graduate Course
August, 1981

Morphophysiological Basis for Low Back Pain
North Carolina Chapter Meeting
October, 1981

Muscular and Neurological Factors in Motor Control
University of Oklahoma
College of Allied Health
November, 1981

Muscular and Neurological Factors in Motor
Control: Clinical Investigations and Implica-
tions
Curative Rehabilitation Center
Milwaukee, Wisconsin
January, 1982

Conservative Management of the Low Back Syndrome
Lahey Clinic
Boston, Massachusetts
February, 1982

Conservative Management of the Low Back Syndrome
Chicago Land Orthopedic Physical Therapy
Study Group
March, 1982

Muscular and Neurological Factors in Motor
Control: Clinical Investigations and Implica-
tions
Harmarville Rehabilitation Center
Pittsburgh, Pennsylvania
November, 1982

Muscular and Neurological Factors in Motor
Control: Clinical Investigations and Implica-
tions
Mid-year Meeting (Neurology Section-Instructional
Course)
February, 1983

Muscular and Neurological Factors in Motor
Control: Clinical Investigations and Implica-
tions
District of Columbia Chapter
May, 1983

Muscular and Neurological Factors in Motor
Control: Clinical Investigations and Implica-
tions
Pittsburgh Orthopedic Study Group
June, 1983

Muscle Biology: Clinical Considerations
Kentucky
September, 1983

A Multidisciplinary Approach to Evaluation and
Treatment of the Lumbosacral Spine
Atlanta
September, 1983

The Role of Muscular and Neurological Factors in
Movement Dysfunction: Clinical Application to
Low Back and Upper Motoneuron Syndrome
Patients
Kentucky
November, 1983

The Role of Muscular and Neurological Factors in
Movement Dysfunction: Clinical Application to
Low Back and Upper Motoneuron Syndrome
Patients

Pittsburgh Orthopedic Study Group
January, 1984

Movement Dysfunction as a Causative Factor in Low
Back Pain/American Back School

Portland
February, 1984

Movement Dysfunction as a Causative Factor in Low
Back Pain/American Back School

Tampa
March, 1984

Movement Dysfunction as a Causative Factor in Low
Back Pain/American Back School

Ohio Chapter
April, 1984

Muscle Biology: Consideration for Clinical
Practice and Research

N. Dakota and S. Dakota Chapters
May, 1984

Muscle Biology
Arthritis Health Profession Meeting
Minneapolis, MN
June, 1984

Subject of Lectures

Comprehensive Back Injury Program

"Muscle Dysfunction as an Etiological Factor in
Low Back Pain"

"Musculoskeletal Screening for Patients of Low
Back Pain"

American Back School Seminars

Washington, DC

June, 1984

Symposium on Pathokinesiology

"Description and Classification: The First
Requirements for Pathokinesiological Research"

APTA Conference

Las Vegas, Nevada

June, 1984

Subject of Lectures

Comprehensive Back Injury Program

"Muscle Dysfunction as an Etiological Factor in
Low Back Pain"

"Musculoskeletal Screening for Patients of Low
Back Pain"

American Back School Seminars

Boston, Massachusetts

July, 1984

Subject of Lectures

Comprehensive Back Injury Program

"Muscle Dysfunction as an Etiological Factor in
Low Back Pain"

"Musculoskeletal Screening for Patients of Low
Back Pain"

American Back School Seminars

St. Louis, MO

August, 1984

"Realities to be Considered in the Planning and
Establishing a Physical Therapy Research
Center"

Vermont P.T. & O.T. Regional Research Center
Workshop

Burlington, VT

Sept., 1984

Subjects of Lectures

"Muscle Dysfunction as an Etiological Factor in
Low Back Pain"

"Musculoskeletal Screening for Patients of Low
Back Pain"

American Back School Seminars

Ft. Lauderdale, FL - Jan., 1985

New York City, NY - Mar., 1985

Maui, Hawaii - Apr., 1985

Hilton Head, SC - May, 1985

Washington, DC - July, 1985

Seattle, WA - Aug., 1985

Boston, MA - Sept., 1985

Houston, TX - Oct., 1985

Chicago, IL - Nov., 1985

"Academics vs. Teachers: A Dilemma in Physical
Therapy Education"

Thomas Jefferson University, College of Allied
Health Sciences

Philadelphia, PA

October, 1985

"The Philosophical Implications for Independent
Physical Therapy Practice"
Massachusetts Chapter Presentation - APTA
Nov., 1985

"Muscle dysfunction as an etiological factor in
low back syndrome: The relevance of clinical
muscle length and strength testing in patients
with low back syndrome"
Utah Chapter Presentation - APTA
Dec., 1985

Subjects of Lectures

"Muscle Dysfunction as an Etiological Factor in
Low Back Pain"

"Musculoskeletal Screening for Patients of Low
Back Pain"

American Back School Seminars

Hilton Head, SC - May, 1986

Kansas City, MO - June, 1986

Honors and Awards:

Who's Who in American Colleges and Universities
1961

Visiting Distinguished Lecturer
Texas Women's University
1981

Lucy Blair Service Award
1983

Catherine Worthingham Fellow of APTA - 1985

Member
Board of Trustees
Foundation for Physical Therapy
1986

Editorial Board
TODAY'S STUDENT PT
Slack, Inc.
1986

Grant Activity:

Special Project Grant, "Physical Therapy Education
for Primary Health Care"
Received from the Department of Health, Education,
and Welfare, Division of Associated Health
Professions, Bureau of Health Manpower
July 1, 1976 - 1979
Steven J. Rose, Ph.D., Project Director

Special Project Grant, "Traineeship in Physical
Therapy"
Received from the Department of Health, Education,
and Welfare
Office of Human Development Services, Office of
Rehabilitation Services
September, 1979
Steven J. Rose, Ph.D., Project Director

American Back School - Electromyographic Analysis
of Two Techniques for Lifting
1983
Steven J. Rose, Ph.D., Project Director

Ralston Purina Trust Fund, "Patterns of Activation
of Trunk Musculature While Forward Bending in
Low Back Syndrome Patients"
1983
Steven J. Rose, Ph.D., Project Director

National Institute of Occupational Safety and
Health
"Development for Research Design for Assessment of
a Coding Manual for Low Back Pain Signs and
Symptoms Protocol" (with Arthur D. Shulman)
1984 - 1985

National Institute of Occupational Safety and
Health
"Reliability of the NIOSH Low Back Evaluation
System" (with Arthur D. Shulman)
1985 - Present

Arthritis Foundation, Eastern Missouri Chapter
"Comparisons of Four Instruments Designed to
Measure Function Disabilities in Low Back
Syndrome Patients" (with Arthur D. Shulman
and Michael Strube)
1985-1986

Services to the University/College/School on Committees/Councils/
Commissions:

Past University Services:

Member, Curriculum Committee
Ithaca College
Division of Physical Therapy
1973 - 1976

Co-Chairman, Continuing Education Committee
Ithaca College
Division of Physical Therapy
1973 - 1976

Member, Admissions Committee
Program in Physical Therapy
Downstate Medical Center
September, 1965 - April, 1966

Chairman of Curriculum Development
Committee for Anatomy, Kinesiology,
Therapeutic Exercise
Ithaca College
Jacobi Hospital
January, 1965 - August, 1965

Member, Search Committee for Chairman of
Rehabilitation Medicine - /SUNY Buffalo
June, 1976 - July, 1977

Member, Interdisciplinary Graduate Group
in Neurosciences - /SUNY Buffalo
September, 1976 - 1979

Member, Organization of Principal Investigators
SUNY Buffalo
November, 1976 - 1979

Member, University-wide Committee for the
Allocation of B.R.S.G. Funds - SUNY Buffalo
September, 1978 - 1979

Member, Search Committee for Chairman of Health
Education - SUNY Buffalo
December, 1978 - 1979

Member, Health Science Faculty Council
July, 1976 - June, 1978
SUNY Buffalo

Member, Health Science Committee for the
Allocation of B.R.S.G. Funds
September, 1978 - 1979
SUNY Buffalo

School of Health Related Professions:

Member, Executive Committee
June, 1976 - 1979
SUNY Buffalo

Member, Promotions and Tenure Committee
September, 1976 - 1979
SUNY Buffalo

Member, Continuing Education Committee
September, 1976 - 1979
SUNY Buffalo

Chairman, Ad Hoc Committee to Investigate
The Establishment of an Institute of
Allied Health Clinical Research
January, 1977 - September, 1977
SUNY Buffalo

Director, Institute of Allied Health
Clinical Research
March, 1978 - 1979
SUNY Buffalo

BUDGETS - DIVISION OF PHYSICAL THERAPY

ACADEMIC YEARS 1987-90

Complimentary Information regarding the Budgets for AY's 1987-90 on the following page:

1. The 1987-88 Budget reflects the one secretary at the Red Road facility, with budgeted PT/OT funds for securing 1.5 secretaries during the year. The Program has identified a second secretary who will be employed full-time at the Medical School facility; an additional part-time position for the Coral Gables facility is being sought.
2. Travel funds are budgeted for the faculty, and are incorporated into the line items for "Clinical Education Visits" (travel to clinical internship sites where students are on full-time clinical affiliation); travel is also incorporated into the line item for "Continuing Education and Conferences" for academic faculty to attend regional and national professional conferences.

DIVISION OF PHYSICAL THERAPY: 1987 - 1990

	JUNE	JULY	AUGT	SEPT	OCTB	NOVB	DECB	JANU	FEBR	MARC	APRL	MAYD	YEAR	YEAR	YE
	'87	'87	'87	'87	'87	'87	'87	'88	'88	'88	'88	'88	'87/'88	'88/'89	'89/'
Tuition (//Semester)															
BS Level	2142			3368				3368							
Grad Level	4272			4740				4740							
Grad Level II				5925				4740							
Number of Students															
ELM I - BS	10			10				10							
ELM I - Grad	30			30				30							
ELM II	0			17				17							
Tuition Revenue In	149580			276605				256460					682645	1144000	152000
OPS CASH BALANCE BDM	149580	118758	84935	298718	181404	117755	63106	268917	208603	155954	102305	50656	682645	1144000	152000
Expenses - Cash Out:															
Total Faculty Salrys	14307	14307	14307	23857	23857	23857	23857	23857	23857	23857	23857	23857	257634	340000	48000
Faculty Fringes (%)	3577	3577	3577	5964	5964	5964	5964	5964	5964	5964	5964	5964	64409	85000	12000
Faculty PT/DT				2000	2000	2000	2000	2000	2000	2000	2000	2000	18000	54000	7500
Total Faculty Cost	17884	17884	17884	31821	31821	31821	31821	31821	31821	31821	31821	31821	340043	479000	67500
Total Staff Salrys	1367	1367	1367	1367	1367	1367	1367	1367	1367	1367	1367	1367	16404	36000	6000
Staff Fringes (%)	301	301	301	301	301	301	301	301	301	301	301	301	3609	7920	1320
Staff PT/DT				3889	3889	3889	3889	3889	3889	3889	3889	3889	35001	18000	2400
Total Staff Cost	1668	1668	1668	5557	5557	5557	5557	5557	5557	5557	5557	5557	55014	61920	9720
Adj. Fees		3000	3000	2000	3000	3000			3000	3000	2000		22000	30000	3600
Client Visit Costs				1000	2000	2000	2000	1000	1000	2000	2000	2000	15000	24000	3000
Cont. Ed. and Conf.	2000	2000	1000	1000	2000	3000	2000	2000	2000	2000	1000	2000	22000	30000	4800
Instruction Matl.	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	15000	24000	3000
Clerical Consumables	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	18000	2400
Xerox-Copy Center	750	750	750	750	750	750	750	750	750	750	750	750	9000	12000	1600
Telephone	400	400	400	400	400	400	400	400	400	400	400	400	4800	6000	900
Equipmt-BldgRenovatn			30000	55000	10000								95000	315000	38500
Insurance				1000									1000	3000	600
Equip/Bldg Maint.	375	375	375	375	375	375	375	375	375	375	375	375	4500	5000	600
Misc. Expenses	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1353	16159	16280	1800
Graduate Assistships				10665				10665					21330	70000	9000
Med School Rent	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150	49800	49800	4980
Total Other Expenses	11271	14271	43271	79936	26271	17271	13271	22936	15271	16271	14271	13278	287589	603080	74780
Total Expenses	30822	33822	62822	117314	63649	54649	50649	60314	52649	53649	51649	50656	682645	1144000	152000
EOM CASH BALANCE OPS	118758	84935	22113	181404	117755	63106	12457	208603	155954	102305	50656	0	0	0	

APPLICANT INFORMATIONAL PACKETS:

School of Education and Allied Professions - 1984-86
School of Medicine - 1986-87



MASTER'S DEGREE (ENTRY LEVEL) IN PHYSICAL THERAPY

The University of Miami has established a Master's Entry Level Program in Physical Therapy in accordance with the recent ruling of the American Physical Therapy Association that all entry-level degrees must be offered at the post-baccalaureate level by 1990. This curriculum is designed to develop highly competent entry-level practitioners in physical therapy.

For incoming freshman, the curriculum entails a 5½ year sequence of study leading to a Bachelor of Science in Health Sciences after four years and a Master of Science in Physical Therapy at the completion of the last 1½ years. The first three years of the curriculum (pre - physical therapy) are taught in the College of Arts and Sciences with emphasis on the liberal arts and basic sciences. The last 2½ years, including the fourth year of the Bachelor's degree, are taught in the School of Education and Allied Professions and include all the physical therapy coursework.

Criteria for admission into the pre-physical therapy curriculum are the same as those for admission into the Health Sciences Program in the Department of Biology, College of Arts and Sciences. For complete information concerning application procedures, please contact:

Mr. Bruce Grayson
Department of Biology
College of Arts and Sciences
University of Miami
Coral Gables, FL 33124
Phone: (305) 284-3571

Application for admission to the physical therapy three-year curriculum is made during the fall semester of the third year. The criteria for admission are as follows:

1. Submission of all application materials to the Program in Physical Therapy in the School of Education and Allied Professions by December 31st.
2. Completion of the pre-physical therapy coursework with a minimum overall grade point average of 2.6 on a 4.0 scale.

3. Demonstration of knowledge concerning the physical therapy profession by submitting:
 - a. a handwritten essay explaining why the applicant desires to become a physical therapist, and
 - b. documentation of a minimum of 100 hours of first-hand observation and/or work experience related to the practice of physical therapy. This experience must be substantiated in writing by a registered/licensed physical therapist.
4. Submission of three letters of recommendation addressing both the applicant's moral character and potential as a physical therapist. At least one letter must be written by a registered physical therapist.
5. A personal interview with at least one member of the Physical Therapy Admissions Committee. It is applicants responsibility to call and arrange for interview. (305-284-4535)

Students who have already earned a Bachelor's degree are also encouraged to to apply for admission into the 2½ year physical therapy curriculum. Admission criteria are the same as those listed above except for #2. In this case, the applicant is required to complete all the pre-requisite courses listed below with a minimum grade point average of 2.6 on a 4.0 scale and all grades being a C or higher.

Pre-requisite Courses:

1. General Biology
2. Human Anatomy
3. Physiology
4. General Chemistry with Lab (2 semesters)
5. General Physics with Lab (2 semesters)
6. Psychology (2 semesters) (one Intro. and one Abnormal or Developmental)
7. Mathematics (at least Algebra & Trigonometry)
8. Introduction to Statistics
9. English Composition (2 semesters)

All students (both undergraduate and post-baccalaureates) will be required, during their first year in the major, to obtain acceptable scores on the Graduate Record Examination and gain admission to the University of Miami Graduate School for their final 1½ years of study.

For further information concerning the Master's Degree (Entry Level) in Physical Therapy, please contact:

Director, Program in Physical Therapy
University of Miami
5801 Red Road
Coral Gables, FL 33143
Phone: (305) 284-4535

GENERAL INFORMATION

- A. A University Bulletin describing tuition, living accommodations, University rules and regulations, etc. may be obtained from the:

Office of Admissions
University of Miami
P.O. Box 248045
Coral Gables, FL 33124
Phone: (305) 284-4323

- B. Persons wishing information regarding Financial Aid or Scholarships should contact:

Student Financial Aid Services
University of Miami
Coral Gables, FL 33124
Phone: (305) 284-5212

- C. The University of Miami reserves the right to adapt the curriculum to progressive advances in related health sciences by withdrawing or adding courses, or by revising course content.

NONDISCRIMINATION POLICY

"It is the policy of the University of Miami that no citizen of the United States or any other person within the jurisdiction thereof shall, on the grounds of race, color, national origin, sex, age, marital status or handicap, be excluded from participation in, be denied the benefits of, or be subjected to, discrimination in employment or under any educational program or activity of the University."

BACHELOR OF HEALTH SCIENCE

RECOMMENDED SEQUENCE

PRE-PHYSICAL THERAPY COURSEWORK

BIL 111 General Biology	4	BIL 112 General Biology	4
CHM 103/ Inorganic Chem.	3	CHM 104/ Organic Chem.	3
105 Lab	1	106 Lab	1
MTH 101 Algebra	3	MTH 102 Trig. & Geometry	3
ENG 105 English Comp.	3	ENG 107 Science & Tech Writing	3
	14	PSY 101 Psychology	3
			17

BIL 211 Genetics	3	BIL 203 Human Anatomy	4
PHY 101/ College Physics I	4	PSY 203 Abnormal Psychology	3
106 Lab	1	ENG 201 World Lit.	3
Art, Music or Drama	3	PHY 102/ College Physics II	4
MTH III Calculus	4	108 Lab	1
	15		15

STA 204 Statistics	3	BIL 311 Cell Biology	4
BIL 204 Syst. Physiology	3	Fine Arts	3
HIS 131 West. Civ.	3	IEN 124 Intro. Computer Prog.	3
Humanities	3	BIL — Elective	3 or 4
BIL — Elective	3 or 4		13 or 14
	15 or 16		

 * Application for admission to the School of Education and Allied Professions *
 * Physical Therapy Program must be completed prior to December 31st. *

PHYSICAL THERAPY COURSEWORK

Summer Semesters prior to starting senior year:

First Summer Session

PES 231 Gross Anatomy I	3
PES 230 Introduction to P.T.	3
	6

Second Summer Session

PES 232 Gross Anatomy II	3
PES 471 Therapeutic Exercise I	3
	6

Senior Year

PES U540 Neuroanatomy	3	PES 233 Communications in P.T.	3
PES 470 P.T. Clinical Skills	3	PES U541 Neurophysiology	3
PES 474 Ortho. I	3	PES 478 Clinical Internship I	3
PES 472 Analysis of Motion	3	PES 473 Abnormal Motion	3
	12		12

NOTE: COURSES SUBJECT TO CHANGE, STUDENTS MUST CHECK WITH ADVISOR PRIOR TO ACTUAL REGISTRATION.

MASTER OF SCIENCE IN EDUCATION AND ALLIED PROFESSIONS

PHYSICAL THERAPY (ENTRY LEVEL)

Admission to the Physical Therapy Major is limited. Applicants are screened according to criteria set by the Physical Therapy Admissions Committee.

COMPLETION OF THE PRE-PHYSICAL THERAPY SEQUENCE DOES NOT GUARANTEE ACCEPTANCE INTO PHYSICAL THERAPY COURSES.

PHYSICAL THERAPY MAJOR		48 credits		
Course No.	Course Name		Credits	Grade
PTE 542G	Electrotherapy		3	_____
PTE 610	Clinical Internship II		3	_____
PTE 611	Clinical Internship III		3	_____
PTE 612	Clinical Internship IV		3	_____
PTE 613	Clinical Internship V		3	_____
PTE 614	Neurorehabilitation I		3	_____
PTE 615	Neurorehabilitation II		3	_____
PTE 616	Clinical Research I		3	_____
PTE 617	Clinical Research II		3	_____
PTE 618	Physical Therapy Administration		3	_____
PTE 624	Cardio-Respiratory Physical Therapy		3	_____
PTE 626	Therapeutic Exercise II		3	_____
PTE 627	Therapeutic Exercise III		3	_____
PTE 628	Orthopedics II		3	_____
PTE 629	Orthopedics III		3	_____
— —	Elective		3	_____

PHYSICAL THERAPY

MASTER'S OF SCIENCE IN PHYSICAL THERAPY

Program

The University of Miami now offers an entry-level Master's degree program in Physical Therapy through the School of Medicine. As a 3 + 3 program, students may follow one of two tracks:

1. Students may enter the Health Science program in the College of Arts and Sciences. The first three years are devoted to an accelerated program of liberal arts courses and completion of courses toward a major in Health Science. Application to the Physical Therapy program is made during the third year of study. Classes commence in May, during the summer sessions between the junior and senior year. Upon successful completion of a year of introductory Physical Therapy courses, students are awarded a Bachelor's in Health Science (B.H.S.) by the College of Arts and Sciences.

The remaining two years of the Physical Therapy program are under the auspices of the School of Medicine and consists of graduate coursework and clinical internships. Successful candidates are awarded a Master's of Science in Physical Therapy (M.S.P.T.) by the School of Medicine.

For information regarding the 3 + 3 program, please contact:

Office of Health Science Programs
College of Arts and Sciences
University of Miami
P.O. Box 249118
Coral Gables, Florida 33124
305/284-3571

2. Persons holding a bachelor's degree in a related field may apply for admission into the entry-level Master's program in Physical Therapy. During a two and a half year course of study, students pursue graduate coursework and clinical internships. Upon successful completion of the program, students are awarded a Master's of Science in Physical Therapy (M.S.P.T.) by the School of Medicine.

Applicants to the Master's program in Physical Therapy must have the following pre-requisite courses:

English Composition	2 semesters
General Biology	1 semester
General Chemistry with Laboratory	2 semesters
General Physics with Laboratory	2 semesters
Human Anatomy	1 semester
Introduction to Statistics	1 semester
Mathematics (Algebra/Trigonometry)	1 semester
Psychology (Abnormal or Developmental)	2 semesters
Physiology	1 semester

For information regarding the post-baccalaureate Master's program, please contact:

Office of the Director, Program in Physical Therapy
School of Medicine
University of Miami
5801 Red Road
Coral Gables, Florida 33143
305/284-4535

Philosophy

The Program in Physical Therapy is committed to providing quality educational experiences which enable its graduates to effectively carry out the expanding responsibilities of physical therapists as autonomous health care providers practicing in preventive, evaluative, maintenance, acute care and rehabilitation settings, and in educational and research environments.

The individual and collective efforts of the members of the Physical Therapy faculty are directed toward the attainment of specific goals and objectives as expressed in the philosophic statement of the American Physical Therapy Association:

"Physical therapy is a health profession whose primary purpose is the promotion of optimal human health and function through the application of scientific principles to prevent, identify, assess, correct or alleviate acute or prolonged movement dysfunction. Physical therapy encompasses areas of specialized competence and includes the development of new principles and [modes off] application to more effectively meet existing and emerging health needs. Other professional activities that serve the purpose of physical therapy are research, education, consultation, and administration."

The mission of the program in Physical Therapy is to serve the profession, the University, and the community through the accomplishments and activities of the faculty and students. To this end, each faculty member must assume responsibility in all four components of the program—education, research, community service, and clinical practice.

The Program recognizes the importance of in-depth basic and applied science knowledge and the humanities. As such, the curriculum is carefully sequenced to allow students to develop skills in both classroom and clinical settings. Faculty also understand the importance of presenting problem-solving skills in conjunction with fundamental physical therapy concepts so that students will develop the professional attitudes and insights required for sustained and continued growth throughout their careers.

Application Procedure

Application for admission to the Physical Therapy three-year curriculum is made during the fall semester of the junior year, or in the fall prior to the beginning of classes in May of each year (for post-baccalaureate study). Criteria for admission are as follows:

1. Submission of all application materials to the Office of Physical Therapy Programs in the School of Medicine by December 31.
2. Completion of pre-Physical Therapy coursework, or pre-requisites, with a minimum GPA of 3.0 on a 4.0 scale; and all science pre-requisites with a "C" grade, or higher.
3. Demonstration of knowledge concerning the physical therapy profession by submitting: a) an essay detailing the reasons why the applicant desires to become a physical therapist, and b) documentation of a minimum of 100 hours of first-hand observation and/or work experience related to the practice of physical therapy. This experience must be substantiated in writing by a registered/licensed physical therapist.
4. Submission of three (3) letters of recommendation addressing both the applicant's moral character and potential as a physical therapist. At least one letter must be written by a registered/licensed physical therapist.
5. A personal interview with at least one member of the Physical Therapy Review Committee. It is the applicant's responsibility to call (305/284-4535) and arrange for an interview.
6. All students seeking admission to the Master's (M.S.P.T.) program are required to take the Graduate Record Examination (GRE) obtaining acceptable scores on the three portions of the test prior to pursuing the graduate level coursework.

Every effort will be made to accept all qualified students into the Master's program, but certain factors (e.g., number of available clinical sites) may limit the number of students who can be accepted. The Physical Therapy Review Committee will consider such criteria as the number of credit hours at the University of Miami, overall GPA, mathematics and science GPA, English GPA, prior experience, GRE scores, and personal interview scores in making its recommendations for admission.

Coursework and Clinical Internships

Most of the Physical Therapy coursework, as well as the first three years of the 3 + 3 track, is taught on the Coral Gables campus of the University of Miami. Advanced courses are conducted at the School of Medicine campus and Jackson Memorial Hospital, both in nearby Miami. During the first and second years of the Physical Therapy curriculum, students are exposed to integrated clinical experiences. For the last semester, full-time clinical internships are arranged. Students have an opportunity to synthesize patient care skills with scientific knowledge as final preparation in becoming a practicing physical therapist. Internships are carried out in various Physical Therapy clinics located throughout Florida and other states.

Expenses

Tuition for the academic year 1987-1988 is \$395 per credit hour. Room and board is approximately \$3,800, depending on the type of housing selected and choice of meal plan. Textbooks average \$300 per year. Students engaged in clinical internships may incur additional expenses for travel and lodging.

Financial Assistance

Extensive programs in financial assistance are available in the form of grants, scholarships, loans, and tuition payment plans. For further information, please contact:

Office of Financial Assistance Services
University of Miami
P.O. Box 248187
Coral Gables, Florida 33124
305/284-5212

Bachelor of Health Science

Pre-Physical Therapy Curriculum

Freshman Year

Algebra
English Composition
General Biology I and II
Inorganic Chemistry
Organic Chemistry
Psychology
Scientific and Technical Writing
Trigonometry and Geometry

Junior Year

Cell Biology
Introduction to Computer Programming
Statistics
Systemic Physiology
Western Civilization
Two (2) Biology Electives
Two (2) Humanities Electives

Sophomore Year

Abnormal Psychology
Calculus
College Physics I and II
Genetics
Human Anatomy
World Literature
One (1) Humanities Elective

Master of Science in Physical Therapy

Physical Therapy Curriculum

Summer Sessions

Gross Anatomy I and II
Found. of Physical Therapy
Therapeutic Exercise I

Summer Sessions

Neuro-Rehabilitation II
Orthopedics III
Physical Therapy Administration

First Year*

Analysis of Abnormal Human Motion
Analysis of Normal Human Motion
Clinical Internship I
Communications in Physical Therapy Practice
Neuroanatomy
Neurophysiology
Orthopedics I
Physical Therapy Clinical Skills

One (1) Physical Therapy Elective

Third Year**

Clinical Internship IV and V
Clinical Research II

Second Year

Cardio-Respiratory Physical Therapy
Clinical Internship II and III
Clinical Research
Electrotherapy
Neuro-Rehabilitation I
Orthopedics II
Therapeutic Exercise II and III

*Students in the 3 + 3 program are awarded a Bachelor of Health Science (B.H.S.) upon successful completion of the first year of study in the program.

**Students graduate in December with a Master of Science in Physical Therapy (M.S.P.T.)

The University of Miami is a private, independent, international university. An equal employment opportunity/affirmative action employer. It is the policy of the University of Miami that no citizen of the United States, or any person within the jurisdiction thereof, shall, on grounds of race, color, national origin, religion, sex, age, or handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination in employment or under any educational program or activity of the University.

SUMMARY STATEMENT:

The Program in Physical Therapy in the School of Medicine has been described herewith. This document has been prepared for The Graduate School, University of Miami. The history of the Entry-Level Master's Program, both nationally and within this institution has been chronicled. The curriculum, faculty, resources, teaching and research facilities have been described.

We are a strong, viable Graduate Education Program, with applications increasing each year. We hope the Program Committee of the Graduate School will accept this new Program and new degree offering, Master's of Science in Physical Therapy, (M.S.P.T.), and the proposed Advanced Master's degree (M.S.), as new degree offerings for the University of Miami.

APPENDIX A

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE

July 18, 1987

To: Dr. Pamela Ferguson
Dean of the Graduate School and Associate Provost
P.O. Box 248125
University of Miami
Coral Gables, FL 33124

From: Dr. Bernard J. Fogel
Dean, School of Medicine
University of Miami

Re: Programs in Physical Therapy - School of Medicine:
(1) Entry Level Master's Degree - M.S.P.T.
(2) Advanced Master's Degree - M.S.

(1) Entry Level Master's Degree in Physical Therapy:

This Program was welcomed into the School of Medicine in May, 1986. We recognize the value of the profession of physical therapy as an integral part of the medical community.

The past year has been a transitional one, with respect to defining the scope and needs of this vital and important educational program at this University. The essential triad of providing quality education, clinical and basic research, and clinical practice, is consistent with the philosophy embodied within the School of Medicine.

Our commitment to the Program in Physical Therapy to date is evidenced by our support of the expansion and renovation of teaching and research facilities.

I totally support the Program in Physical Therapy and its educational mission, and we are pleased with the transfer of the Program to the School of Medicine.

(2) Advanced Master's Program - M.S.

This Program, targeted for initiation in the Summer or Fall, 1988, is an essential program of study for the Southeast Florida region. With the gradual transition nationally toward Entry Level Master's degree for physical therapy professionals, practicing clinicians holding baccalaureate degrees are desirous of obtaining advanced degrees. Additionally, clinical specialization in physical therapy (currently in six specialty areas) is becoming advantageous for many practitioners.

Vice President for Medical Affairs and Dean (R-699)

P.O. Box 016099

Miami, Florida 33101

(305) 547-6545

Location: 1600 N.W. 10th Avenue, RMSB 1143A

Presently, there is no such advanced program of study for practicing clinical physical therapists in the South Florida region. The University of Florida, Gainesville, offers a Master's degree in Allied Health. That program of study is a full-time program, and currently has limited enrollment. One of the major disadvantages is the full-time schedule - a more reasonable program would be a part-time course of study, with classes held on week-ends and evenings, in order to allow these clinicians to continue working at their jobs while advancing their education. This is the model proposed by the Physical Therapy Program at the University of Miami.

With respect to the Florida International University situation, I am aware that they have a baccalaureate program in physical therapy. A proposed Advanced Master's degree program for practicing physical therapists has been sitting at the Board of Regents for the State of Florida for over a year, and apparently is unlikely to be approved in the near future. This then places the University of Miami in a very advantageous position, with respect to being the first program offering an Advanced Master's degree. Further, meeting the needs of the community is consistent with the mission of the University.

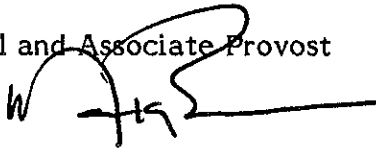
Finally, this Program of study has not been initiated thus far, due to a shortage of qualified faculty, and also due to the initiation of a totally new and revised curriculum of study for the Entry Level educational program. It is anticipated that over the course of the next year, additional faculty will join the physical therapy program, with the expressed purpose of teaching the graduate (Advanced) coursework. Advanced study, with a heavy research base and productivity of students and faculty will only enhance the physical therapy program, the School of Medicine, and the University at large. I strongly support this program as well.

Finally, both graduate programs of study are consistent with the School of Medicine's philosophy and mission of providing graduate education in the medical sciences. We are earnestly in favor of the educational programs in Physical Therapy at the University of Miami.

APPENDIX B

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE
MEMORANDUM

TO: Dr. Pamela A. Ferguson
Dean of the Graduate School and Associate Provost

FROM: Mark D. Brown, M.D., Ph.D. 
Professor and Chairman

DATE: August 10, 1987

RE: Programs in Physical Therapy
Division of Physical Therapy,
Department of Orthopaedics and Rehabilitation
(1) Master of Science in Physical Therapy (M.S.P.T.)
(2) Advanced Master's Degree (M.S.)

(1) Entry Level Master's Degree - M.S.P.T.:

This program of study, moved administratively to the School of Medicine in May, 1986, was placed under my Department in the School of Medicine. During the academic year 1986-87, the Program was overseen by the Office of Research and Graduate Studies and Dr. Robert W. Rubin, Deputy Dean of the Medical School. During that year, I was involved in the transitional period of defining the scope and the needs of the program, including the collaborative role this program could play within the institution. Not only do physical therapists work with orthopaedic patients, but with burns, neurological, neurosurgical, pediatrics, rheumatology, surgical, and cardiopulmonary patients, to name a few. Given this, the addition of physical therapy to our department thus can expand the scope of the department and our collaborative research potential.

Over the last year, the physical therapy students have attended weekly Grand Rounds of our Department, and our residents have lectured to the students. I am looking forward to continuing this relationship, and the professionalization and mutual respect which it provides.

I wholeheartedly support the Entry Level Master's Program in Physical Therapy, and I am proud to have the faculty of the Program join our Department.

(2) Advanced Master's Program - M.S.:

This Program has not been initiated as yet, but it is a necessary program in the South Florida region. Advanced study and clinical research in the areas encompassed by physical therapy is strongly needed. I am aware that no such program exists in this area of the state, and also that the heaviest concentration of physical therapists are in the Dade-Broward-Palm Beach counties.

The design of the program, with a structure of specific content with research competencies and the part-time emphasis, is certainly a strength which will make it desirable and practical for practicing therapists.

I have been involved in an advisory capacity for several physical therapists seeking Master's and doctoral degrees in areas other than physical therapy. The intellectual curiosity displayed by these professionals was remarkable, and the research potential is enormous.

I strongly support the institution of this graduate program of study for practicing therapists.

/gbc

APPENDIX C

(Taken from the Application for Interim Accreditation, Program in Physical Therapy - Additional Program: Entry Level Master's Program; submitted June, 1986, to the Commission on Accreditation in Education, American Physical Therapy Association, Alexandria, VA)

STANDARD X

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Major Strengths of the Additional Education Program:

1. Entry-Level Master's Degree - the curriculum has been expanded in both the professional preparation, and the pre-professional preparation. In the format of a 3 + 3 model, students will have a broader general education background, and an increased professional curriculum.
2. Strengthening of Professional Content - the curriculum has been re-organized to give greater emphasis to "the basics", which have long been skimmed due to expansion of specialized content (i.e. exercise physiology, research methodology, specialized evaluation procedures in orthopedics and neurology, etc.). This change has been in response to graduates' comments, clinical instructors' comments, and employers of recent graduates. By building on a firmer foundation, increased content in specialty areas can be more readily grasped and competent decision-making enhanced.
3. Increased Reliance on Self-Directed Learning - the new curriculum has increased responsibility placed on the learner in the format of individual and group investigations of specific topics, with oral and written presentations required. This will result in a practiced "educator" - one who will be readily comfortable with peer group in-service education presentations, and also an educator of his/her patients, family or the community. Improved ability in written communication and an appreciation for, and dedication to, the research effort in physical therapy will follow.
4. Increased Institutional Support of the Program - the Program in Physical Therapy now resides in the School of Medicine ... It is significant to note that the institutional move to continue the program after discontinuance has strengthened the administrative structure and potential for the Program in Physical Therapy.... The Program now has important linkages within the Medical School environment (and control of the budget and operation of the Program).

5. Increased Collegiality Within the Institution at Large - improved communications between the Program in Physical Therapy and the Medical School have occurred since the administrative move. The Department of Research and Graduate Studies has been supportive, as well as interested in pursuance of further programs of study (i.e. a Ph. D. in physical therapy.) Additionally, the School of Arts and Sciences has been not only supportive of our Program but our Mission as well. Our students are housed in the School of Arts and Sciences for the first three years (if in the 3 + 3 model), and A & S has already revised their brochures to reflect the change of School for the Program, have counselled their students regarding the Program, and have approximately 20 students per year for the next two years, who are electing Physical Therapy as their major in the 3 + 3 model.

6. The Only Master's Entry Level-Physical Therapy in Florida - the Program in Physical Therapy at the University of Miami will be the only Entry Level Master's Program in the State of Florida for a long time. The State Board of Regents recently denied the petition by the three state universities who have physical therapy programs in the state of Florida, to raise the entry level educational preparation for physical therapy. At present, two of these state universities have elected to pursue Advanced Master's Programs in Physical Therapy, and continue with Baccalaureate Physical Therapy Degree programs. This factor places the Program in Physical Therapy, Entry-Level Master's Degree, at the University of Miami, in a very favorable position, with respect to applicants and selection of candidates.

Factors Which are Believed to be in Need of Attention:

1. Faculty - the academic year 1986-87 is a transitional year with respect to faculty. The Program has been fortunate in securing several qualified local persons for the faculty and Director's positions, some of which are on a part-time basis. A National search will be undertaken as early as August, for a permanent Director, and permanent faculty members. With the administrative shift, and budgetary control, the Program in Physical Therapy now has the means to competively attract persons highly qualified for the positions available. Further, it is anticipated that with the growth of the Program in terms of numbers of students, the FTE's for the Program will be increased in order to maintain an adequate faculty-student ratio in a graduate program of studies.

2. Space - the facilities of the Program in Physical Therapy have been increased for the year 1986-87 with an additional classroom, and two offices. With the additional faculty projected, and the research capabilities expanded, more space will be required in the next two to three years. Space occupied in the existing building may be increased, or additional space may be secured within the Medical School confines, which will be determined over the next academic year. It is estimated that space requirements for administration of the Entry-Level Master's Program, with lecture rooms, laboratory space, faculty office space and conference room, storage space, secretarial space, and clinical facility, would require a minimum of 10,000 square feet. (Present space is approximately 3,000 sq. ft.)

3. Faculty Practice and Clinical Component - a mechanism of enabling faculty to continue with clinical practice in order to maintain clinical skills, pursue clinical research, demonstrate clinical competence and relevance for "mentoring" of students, and supplement academic income must be sought. Several possible mechanisms exist, with a clinical component on the Coral Gables campus, as well as clinical participation within the Medical School confines (Jackson Memorial Hospital), with reciprocal academic participation by the clinical staff from the Medical School in the Program in Physical Therapy.

4. Marketing, Public Relations - new brochures and literature regarding the Entry-Level Master's Program in the School of Medicine are currently being developed, for distribution in high schools (for the 3 + 3 model) and colleges and universities (for the post-B.S. model). Public relations efforts have already begun, and will be increased in order to promote the Program in Physical Therapy at the University of Miami as a strong program, unique to the State of Florida, and offering students a unique opportunity to enter a challenging and dynamic program preparing the professional physical therapist of the future.

APPENDIX D

UNIVERSITY OF
Miami

HAYES. SHERRILLI
~~MEAN~~ Physical Therapy
~~1111~~ Coral Gables
5801 RED ROAD.

1985-1986 MEDICAL SCHOOL COUNCIL

Dr. Bernard J. Fogel, Chairman

Dr. William Awad (Faculty Senate Council Representative)	'87	Department of Medicine
Dr. Norman Altman, at-large	'88	Department of Pathology
Dr. Keith Brew	'88	Department of Biochemistry
Dr. Robert C. Duncan	'86	Department of Oncology
Dr. George Irvin, at-large	'87	Department of Surgery
Dr. Alan Livingstone	'86	Department of Surgery
Dr. James Oster	'86	Department of Medicine
Dr. Wade Parks	'88	Department of Pediatrics
Dr. Richard Parrish	'88	Department of Ophthalmology
Dr. David Puett	'87	Department of Biochemistry
Dr. Edward Russell	'87	Department of Radiology
Dr. Andrew Taylor	'87	Department of Medicine
Dr. Maria Valdes-Dapena, at-large	'86	Department of Pathology
Dr. Grace Wolff	'86	Department of Pediatrics

AGENDA

Medical School Council
Dean's Conference Room
Rosenstiel Medical Sciences Building
4:00 p.m.

Wednesday, June 25, 1986

1. Approval of Minutes of June 4, 1986 Meeting
2. Items to be Added to the Agenda
3. Election, Membership, Promotions and Tenure Committee....Dr. Oster
4. Mt. Sinai Affiliation Agreement.....Dr. Fogel and
Mr. Robert Cole
5. Physical Therapy Master's Program.....Dr. Rubin
6. Report, ad hoc Committee on Honoraria, Witness Fees.....Dr. Livingstone
7. Date and Agenda of Next Council Meeting

Vice President for Medical Affairs and Dean (R-699)

P.O. Box 016099

Miami, Florida 33101

(305) 547-6545

Location: 1600 N.W. 10th Avenue, RMSB 11-43A

212

Agenda Items

1. Approval of Minutes of June 4, 1986 Meeting

The minutes were approved on the motion of Dr. Oster, seconded by Dr. Parrish.

2. Items to be Added to the Agenda

The following items were added: a) membership, Committee on Committees; b) membership, Internal Review Board.

3. Physical Therapy Master's Program.

Since Dr. Brown had to leave the meeting, this agenda item (#5) was considered out of the agenda order.

Dr. Rubin presented for discussion the new Physical Therapy Program, the description of which he had sent to Council members prior to today's meeting. This is a training program at the Master's Degree level.

He stated that the Program had been transferred at the request of Dr. L. Glaser, Executive Vice President and Provost, to the School of Medicine from the School of Education and Allied Professions. This fiscal year the Program is assigned administratively to Dr. Rubin's office; next year, it will become a component of the Department of Orthopaedics and Rehabilitation.

The 2.5-3.0-year Program will award two degrees, i.e., the entry level degree of Master's of Science in Physical Therapy (M.S. P.T.), the advanced degree of Master's in Physical Therapy (M.P.T.). In three years, the number of students in the Program is expected to be 100. The initiation of a Ph.D. program is a possibility.

Dr. Brown stated that he and the departmental faculty welcome the addition of this training program to the Department since there is a close relationship between the field of physical therapy and the program of the Department. The Program may contribute to the Department's clinical rotations for the medical students.

The transfer of this program will need the acceptance of the College of Arts and Sciences, the Graduate School and the School of Medicine.

After discussion, Dr Irvin moved, seconded by Dr. Altman, that the Council approve the acceptance of the transfer of the Master's Program in Physical Therapy from the School of Education and Allied Professions, and that Dr. Awad be instructed to facilitate this transfer as required by the Faculty Senate. Motion passed unanimously.

RATIONALE FOR PROGRAM IN PHYSICAL THERAPY, MASTER'S ENTRY LEVEL,
UNIVERSITY OF MIAMI, SCHOOL OF MEDICINE

(Prepared by Sherrill H. Hayes, Acting Director, Program in Physical
Therapy, June 2, 1986, for the Medical School Council)

HISTORY OF THE TRANSITION TO POST-BACCALAUREATE EDUCATION:

In 1979, the House of Delegates of the American Physical Therapy Association, (APTA), passed a ruling that all physical therapy education programs would move to a post-baccalaureate entry level by the year 1990.

This stance was re-affirmed in 1980, with the separation of the Accreditation of physical therapy programs, and the post-baccalaureate education issue.

In 1983, the APTA became the sole accrediting body for physical therapy education in the U.S.

In the Spring of 1985, after much discussion, both public and within the National Association, the "mandate" for post-baccalaureate education was modified. Preliminary standards for accreditation of physical therapist education programs have been presented at several national meetings for feedback and discussion, with the "preference for the entry-level at the post-baccalaureate degree level".

NEED FOR THE PROGRAM AT THE UNIVERSITY OF MIAMI:

Currently, there are only 12 accredited Master's entry-level education programs for physical therapy. None of these are in Florida. Additionally, in the Spring of 1986, the Florida State Board of Regents rejected any plans from the 3 State Universities to move to the Master's Entry Level for physical therapy. This then places the Master's Entry program at the University of Miami in a unique position - offering the only Master's Entry program in the State of Florida. Students may enter this program already holding a Baccalaureate degree in a related field, (or they may phase into the Program following completion of 3 years of study in the College of Arts and Sciences, Health Sciences Curriculum in the Department of Biology.) Many of these students (post-baccalaureate) have previously sought a second Baccalaureate degree in physical therapy. The desire for a Master's entry level physical therapy degree is preferable for most of these individuals, given the fact that, although intense, the Master's Entry level degree gives them an advanced degree of study, in a calendar time frame of not much

longer than a conventional Baccalaureate degree program in physical therapy.

The demand for physical therapy services in the next twenty years will continue to increase. It has been estimated that there will be a nationwide shortage of physical therapists of approximately 20-25,000 by the year 2000. This shortage can be related to the increase in the aged population, with a resultant increase in demand for services, as well as the changing health care system and the provision of services. Also, with an estimated excess of dentists and physicians, more individuals (specifically males) will be seeking alternative careers in professions such as Physical Therapy.

Further, competition for positions in Programs in physical therapy has always been strong. While the national ratio of applicants to students accepted is approximately 5:1, some schools at the Baccalaureate level have ratios of acceptance exceeding 10:1. Additionally, according to a recent document from the APTA's Department of Education, the ratio of applicants to acceptance in Master's Entry Level Programs in Physical Therapy is 10:1. This fact is important for the University of Miami. With a larger pool of applicants, the University of Miami would have a competitive edge to accept only the strongest applicants, for a stronger, more successful program.

Finally, the University of Florida, and Florida International University, are in the process of offering an Advanced Master's Degree program in Physical Therapy for physical therapists with Baccalaureate degrees. The University of Miami, Program in Physical Therapy, also has a preliminary model for an Advanced Master's Program for physical therapists. Competition within the state for Advanced Master's Programs of study will be strong, but the Program in Physical Therapy, University of Miami, School of Medicine, is well positioned for this market.

In essence, there will be one Entry-Level Master's Program in Physical Therapy, with the degree to be awarded a Master of Science in Physical Therapy (M.S.P.T.), to be awarded by the School of Medicine. An additional Program, the Advanced Master's Degree in Physical Therapy, is for graduate physical therapists desirous of advanced training in research, education, and clinical specialization in one of several areas in physical therapy. This Program would award a Master's of Physical Therapy (M.P.T.), or a professional Master's degree, from the School of Medicine.

EMPLOYMENT OPPORTUNITIES:

Physical Therapy is considered to be one of the most viable career opportunities through the end of the twentieth century. There exists today, in the South Florida region, a continual shortage of physical therapists, and a need for competent physical therapy graduates to meet the needs of the growing population of this region.

ADVANTAGES TO THE SCHOOL OF MEDICINE AND THE UNIVERSITY OF MIAMI:

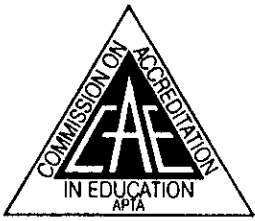
The School of Medicine and the University will benefit from increased full-time enrollment. The program model is one of 3 + 3 years, with the first 3 years housed within the School of Arts and Sciences, in the Health Sciences Program, Department of Biology. The School of Arts and Sciences will therefore benefit from increased enrollment, with students matriculating through the curriculum in the Pre-physical therapy sequence. The University benefits from having two (Entry-level, and Advanced level) scientifically-based programs to compliment the Schools of Medicine and Nursing. Additionally, these graduate programs require the completion of research endeavors which should further increase the University of Miami's prestige when some of these efforts reach presentation and publication status.

Additionally, according to a recent publication from the APTA's Department of Education, faculty in Master's Entry Programs in Physical Therapy were nearly twice as active in advising student research, and 50% more active in conducting their own individual research, as compared to faculty in Baccalaureate Programs in Physical Therapy. These statistics confirm the idea that faculty in a Master's Entry Level Program in Physical Therapy are more actively involved in research, and that they should be recognized as both an academic and a professional discipline.

In planning for future growth, the idea of a Ph.D. Program in Physical Therapy, is not only possible, but extremely desired. Currently, there are only four Ph.D. programs in Physical Therapy in the United States, and none of them are in the southeastern part of the country (Boston, New York, Texas, California). The ability and potentiality of providing an interdisciplinary Ph.D. program within the framework of the School of Medicine is a further indication of the possibilities which may exist in the future.

Finally, there is a national shortage of physical therapy faculty in educational programs across the country. The shortage is most acute for faculty holding a doctoral degree. (only 26% of the faculty nation-wide held doctoral degrees in 1984). By support of the Program in Physical Therapy through salary parity, research support and decreasing excessive teaching loads, the University of Miami will be more competitive in the recruitment market of qualified faculty, as well as retain qualified faculty. A future Ph.D. program within the Medical School will serve not only to increase full and part-time enrollment at the University, and prepare more doctorally-prepared faculty, but also to train and retain some of these potential Ph.D. candidates as faculty within the University of Miami.

APPENDIX E



Commission on Accreditation in Education
American Physical Therapy Association

1111 N. Fairfax Street
Alexandria, Virginia 22314
Telephone: (703) 684-2782

December 18, 1986

Edward T. Foote, II, President
University of Miami
230 Ashe Building
Coral Gables, FL 33125

Dear President Foote:

The Commission on Accreditation in Education of the American Physical Therapy Association granted INTERIM ACCREDITATION status to the entry level master's degree physical therapist education program at the University of Miami on December 5, 1986. The Summary of Action of the Commission on Accreditation in Education is enclosed. The Summary of Action indicates an additional request for material to be submitted in the form of a Progress Report.

Eight (8) copies of the Progress Report are to be submitted to this office no later than March 15, 1986. The report should be in narrative form, with appropriate appendices, documenting progress towards compliance with the area(s) identified by the Commission on Accreditation in Education in the Summary of Action.

Interim Accreditation normally places the additional program on the regular cycle for accreditation. However, the Commission considered a request from the program director to postpone the next visit until 1988. The Commission has agreed to a postponement until the Spring of 1988.

Your students are now eligible for membership in the American Physical Therapy Association. Our Membership Services Department has been advised of the interim accreditation action and will be corresponding with you. The process can be expedited by your providing them with a roster of your students.

If you have any questions or need assistance in any way, please don't hesitate to contact me or Virginia M. Nieland, Director,

Edward T. Foote, II
(page two)

Department of Accreditation at the above address. Best wishes in your endeavors towards a high quality physical therapist education program.

Sincerely,



Carolyn Rozier, Ph.D., Chair
Commission on Accreditation in Education

CR/ba

Enclosure: Summary of Action

cc: Bernard J. Fogel, M.D., School of Medicine
Robert W. Rubin, Ph.D., Deputy Dean, Research & Graduate
Studies, School of Medicine
✓ Sherrill Hayes, Acting Director, Program in Physical Therapy

SUMMARY OF ACTION
APTA Commission on Accreditation in Education

University of Miami
Program in Physical Therapy
5801 Red Road
Coral Gables, FL 33143

The APTA Commission on Accreditation in Education, after a thorough review of the Application for Interim Accreditation, voted to grant the entry level Master's degree physical therapist education program at the University of Miami

INTERIM ACCREDITATION

Date of Action: December 5, 1986
Effective Date: December 5, 1986

The program was judged to be in questionable compliance in the following areas:

1. Standard I, Criterion E: The rights and privileges of the faculty are commensurate with other faculty in the institution, particularly in regard to appointment, promotion, tenure, and salary.

Comments: Requirements for promotion and tenure have not been negotiated since the move to the Medical School. Please submit these new requirements and describe if they are equitable for all faculty members.

Additional Comments:

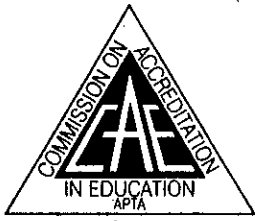
The program should be commended for the course outline of PES 233 - Communication in Physical Therapy Practice.

The CAE will be particularly interested in certain areas which should be included in the Self-study Report prepared for the next scheduled on-site visit:

Faculty have not been announced for PES 625, PES 614, PES 628 and PES 629. What provisions are there if full time faculty are not hired?

Describe the placement in the curriculum for growth and development and how this content area is taught.

Next Accreditation Activity: Progress Report due on March 15, 1987.



Commission on Accreditation in Education
American Physical Therapy Association

1111 N. Fairfax Street
Alexandria, Virginia 22314
Telephone: (703) 684-2782

May 21, 1987

RECEIVED MAY 27 1987

Edward T. Foote, II, President
University of Miami
230 Ashe Building
Coral Gables, FL 33125

Dear President Foote:

The Commission on Accreditation in Education of the American Physical Therapy Association voted to continue accreditation to the physical therapist education program at the University of Miami on May 8, 1987. The Summary of Action of the Commission on Accreditation in Education is enclosed.

If you have any questions or need further assistance in any way, please don't hesitate to contact me or Virginia M. Nieland, Director, Department of Accreditation at the above address. Best wishes in your endeavors toward a high quality physical therapist education program.

Sincerely,

Carolyn Rozier, Ph.D.
Chair, Commission on Accreditation in Education

CR/ba

Enclosure: Summary of Action

cc: Bernard J. Fogel, M.D., School of Medicine
Robert W. Rubin, Ph.D., Deputy Dean, Research & Graduate
Studies
Sherrill Hayes, Acting Director, Program in Physical Therapy

SUMMARY OF ACTION
APTA Commission on Accreditation in Education

University of Miami
Program in Physical Therapy
5801 Red Road
Coral Gables, FL 33143

The APTA Commission on Accreditation in Education, after a thorough review of the Progress Report received on March 13, 1987, comments of the On-site Evaluators, the Self-study Report, and the Application for Interim Accreditation, judged the entry level Master's degree physical therapist education program at the University of Miami to be in compliance with the intent of Standard I, Criterion E and voted to continue interim accreditation which was granted on December 5, 1986.

Date of Action: May 8, 1987
Effective Date: May 8, 1987

Comments: The program should be commended for its speedy remediation of the deficiency mentioned above. In preparing the Self-study document for the On-site visit, please continue to pay attention to the comments outlined on the previous Summary of Action.

Next Accreditation Activity: Self-study and On-site Evaluation in Spring, 1988.



March 27, 1987

Edward T. Foote, II, President
University of Miami
230 Ashe Building
Coral Gables, FL 33125

Dear President Foote:

The physical therapist education program at University of Miami is scheduled for an on-site evaluation in 1988 for accreditation by the American Physical Therapy Association's Commission on Accreditation in Education. Accordingly, we have scheduled this on-site visit for May 16-18, 1988.

If you are scheduled for your regional institutional visit during 1988, we would like you to consider the possibility of a coordinated visit with the regional accrediting association. If you have two or more health programs scheduled for on-site in the same year, you may be interested in coordinating these visits at the same time. The American Physical Therapy Association is aware of the effort experienced by institutions responding to multiple accreditation agencies. We hope that by coordinating the visits, we will be able to provide greater service to institutions and to physical therapy education programs.

The APTA's accreditation program provides service of value to students, to the public, to institutions of higher education, and to the profession. APTA has an obligation to assure the public that individuals entering the physical therapy profession are receiving a quality education which will prepare them to give safe, highly effective patient care. A second purpose of APTA's accreditation program is to foster excellence in physical therapy education.

If the date is not practicable, or if you wish to coordinate visits, please contact me in writing by April 10, 1987 to establish an alternate date. If I do not hear from you by that time, I will assume that the May 16-18, 1988 date is acceptable to you, and we will proceed with plans for the on-site evaluation at that time.

If you have any questions, or if I can assist you in any way, please contact me.

Sincerely yours,

Virginia M. Nieland

Virginia M. Nieland, M.S., P.T.
Director, Department of Accreditation

cc: Bernard J. Fogel, M.D.
Robert W. Rubin, Ph.D., Deputy Dean
Sherrill Hayes, Acting Director



APPENDIX F

Comparison List of other existing Entry-Level Master's Programs
and Advanced Master's Programs in Physical Therapy:

University of Alabama at Birmingham:

Entry Level Master's Program since 1976
(# of credits = > 100)

Advanced Master's Program since 1972; revised in 1976
(# of credits = 36)

(Also a Physical Therapist Assistant Program - A.B.)

FTE's = 16.8 (between the 3 Programs of study)

Duke University Medical Center, Durham, NC:

Entry Level Master's Program
(# of credits = 52)

FTE's = 8.25

Emory University, Atlanta Georgia:

Entry Level Master's Program
Advanced Master's Program

FTE's = 9.0 (between the 2 Programs of study)

Hahnemann University, Philadelphia, PA:

Entry Level Master's Program since 1986
(# of credits = 82)

Doctorate Program since 1987

FTE's = 11 (for Entry Level Master's Program only)

Washington University, St. Louis, MO:

Baccalaureate Program converting to Entry Level Master's
Program in 1988

Advanced Master's Program
(# of credits = 35)

FTE's = 14.75 (between the 2 Programs of study)

SCHOOL OF COMMUNITY AND ALLIED HEALTH
DIVISION OF PHYSICAL THERAPY
POSTPROFESSIONAL GRADUATE STUDY



The University of
Alabama at Birmingham

Postprofessional graduate study is offered for the physical therapist who wishes to pursue advanced study in musculoskeletal problems, pediatric problems, or in preparation for teaching. The courses of study for full-time students begin in January (beginning of winter term) and extend through a minimum of five terms of study. The number of semester hours required varies among the areas of concentration. The programs of study are designed to be completed in full-time enrollment but part-time enrollment may be approved. A common curriculum in movement science is required for the first two terms; study in the area of concentration can begin during these two terms. All areas of concentration include coursework, research activity, and an extended practicum. The length and type of the practicum depends on the area of concentration.

Length of Study: Minimum of 5 terms if full-time student.

Degree Conferred: Master of Science degree

Program Entrance Date: Winter term (January)

Requirements for Admission:

For unconditional acceptance an applicant must:

- hold a baccalaureate degree and be eligible for licensure as a physical therapist
- have a minimum GRE score of 1000 or MAT of 50
- have an overall quality point average of at least 3.0 (A=4.0)
- have a personal interview with members of the faculty of the Division of Physical Therapy
- have completed two years clinical experience at the time of enrollment in the program

Additional requirements for individual areas of concentration:

Musculoskeletal:

- evidence of clinical experience with patients who have musculoskeletal problems

Pediatrics:

- evidence of clinical experience with pediatric patients

Application procedure:

Applicants must submit the following materials by August 15, 1986 for 1987 desired enrollment:

- completed UAB Graduate School application materials (All forms available from Graduate School, UAB, University Station, Birmingham, Alabama 35294) (205/934-8227)
- completed Division of Physical Therapy application materials (available from the Division of Physical Therapy at the address listed below)

Physical Therapy at the address listed below)

CORE COURSES

- | | |
|---|-------------------------|
| Advanced Human Gross Anatomy | Pathokinesiology I,II |
| Introduction to Radiological Concepts | Statistics |
| Clinical Measurements in Physical Therapy | Research Design |
| Seminars | Master's Level Research |

MUSCULOSKELETAL CONCENTRATION

- | | |
|---|------------------|
| Musculoskeletal Evaluation/Treatment I,II | Research Methods |
| Residency | |

TEACHING CONCENTRATION

- | | |
|--|---------------------------|
| Curriculum Development in Physical Therapy Education | Evaluation of Instruction |
| Instructional Planning in Physical Therapy Education | Research Methods |
| Health Education Media | Internship |

PEDIATRIC CONCENTRATION

- | | |
|---|---------------------------|
| Pediatric Assessment/Treatment I,II,III | Maternal and Child Health |
| Research Methods | Practicum |

FOR ADDITIONAL INFORMATION OR AN APPLICATION, WRITE OR CALL:

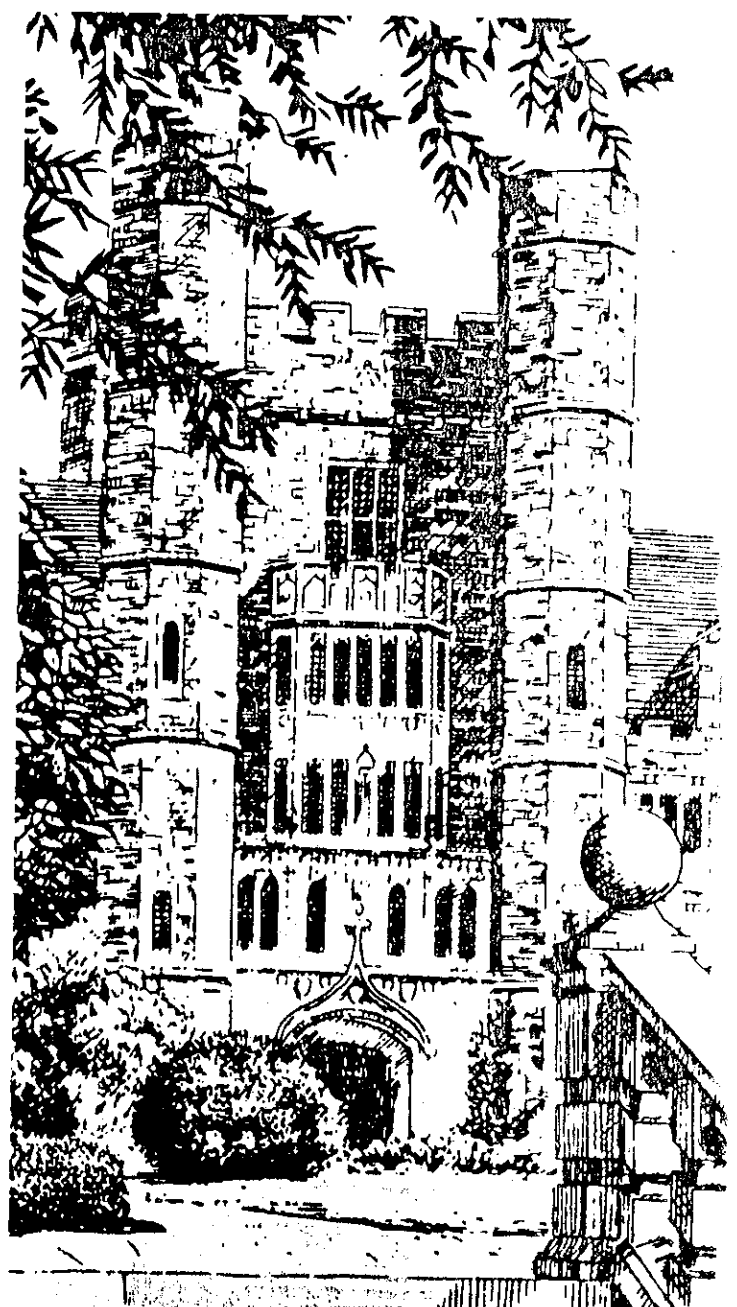
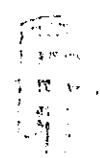
Chairman, Committee on Graduate Admissions
Division of Physical Therapy
School of Community and Allied Health
University of Alabama at Birmingham
University Station
Birmingham, AL 35294
205/934-3566

The University of Alabama at Birmingham administers its educational programs and activities, including admission, without regard to race, color, religion, sex, national origin, age, or handicap. (Title IX of the Educational Amendments of 1972 specifically prohibits discrimination on the basis of sex.) Direct inquiries concerning UAB's nondiscrimination policy to Dr. R.P. Glaze, UAB, University Station, Birmingham, Alabama 35294.

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1988-1990
graduate program in
PHYSICAL THERAPY

Duke University
*Offering a Master
of Science Degree*



PT #113

Department of Physical Therapy
Box 3965
Duke University Medical Center
Durham, North Carolina 27710

PROGRAM

Duke University's Graduate Program in Physical Therapy is a program for entry into the profession of physical therapy. Upon successful completion of the curriculum, the student is awarded the Master of Science degree by the Graduate School.

This fully accredited two-year program, located in the medical center, provides a comprehensive foundation in the art and science of physical therapy, preparing individuals for clinical practice. Experiences in the areas of administration and research are also provided. Students may arrange their curricula to allow for the development of teaching skills.

The program of study requires fifty-two credit units of graduate course work, research, clinical affiliation or other equivalent academic experience. Forty to forty-two units of work are in required physical therapy courses, seven units are in designated basic science courses, and the remaining three to five units are in electives. A research project is required, which provides the opportunity to pursue a particular aspect of physical therapy in depth.

CURRICULUM OUTLINE

The Graduate Program in Physical Therapy provides integration of classroom knowledge and clinical learning experience essential for the competent practice of physical therapy. Therefore, failure in a major course within a semester would prevent the student from continuing the program. Major courses are all required courses offered by the Department of Physical Therapy, as well as required basic science courses. A grade of F (non-credit in the case of P.T. 342, 343, 344) in any of these courses will occasion withdrawal from the program.

The clinical education portion of the curriculum provides experience in varied clinical facilities. Experiences, on a part-time basis, are scheduled early in the curriculum and allow the student to observe a variety of physical therapy settings and to use initial classroom knowledge and skill. Full-time clinical experiences occur in the summer and during the spring semester of the second academic year. These are designed to support and expand the classroom program and to meet specific needs of the student.

Chairman: R.C. Bartlett
 Director of Graduate Studies: E. Branch
 Professor: R.C. Bartlett, M.A.
 Professor Emeritus: H. Kaiser
 Associate Professors: E. Branch, Ph.D.;
 E. Villanueva, A.M.; T. Malone, Ed.D.
 Assistant Professors: P. Duncan, M.A.C.T.;
 G. Horton, B.S.; J. Gwyer, Ph.D.
 Assistant Clinical Professor: M.E. Riordan, M.S.
 Clinical Associates: D. Dore, M.P.A.;
 L.M. Lawrence, B.S.; J. Chandler, M.S.
 Adjunct Assistant Professor: M. Roses, M.S.
 Adjunct Associates: H. Adkins, M.A.;
 N. Caras, Ed.D.; S. Harryman, M.S.;
 C. Nelson, M.A.; M. Propst, M.S.;
 W.D. Roy, III, B.S.; G. Vanderlaan, B.S.;
 B. Warren, B.S.

Fall Semester		Credit Units
ANA 305	Gross Human Anatomy	3
P. T. 301	Introduction to Scientific Inquiry	2
P. T. 313	Physical Agents	2
P. T. 317	Kinesiology	2
P. T. 319	Introduction to Evaluation and Patient Care	3
P. T. 334	Introductory Pathology	<u>2</u>
		14

Spring Semester		
ANA 309	Basic Neurobiology	4
P. T. 314	Electrotherapy & Electrodiagnosis	1
P. T. 318	Arthrology and Pathokinesiology	3
P. T. 320	Evaluation and Therapeutic Procedures I	3
P. T. 335	Orthopedics	2
P. T. 336	Medical Sciences	<u>3</u>
		16

Summer Session

P. T. 321	Evaluation and Therapeutic Procedures II	2
P. T. 343	Directed Clinical Experience in Physical Therapy II	<u>2</u>
		4

Fall Semester

	Electives	3-5
P. T. 303	Research	3-5
P. T. 322	Evaluation and Therapeutic Procedures III	3
P. T. 332	Physical Therapy and Health Services: Administration and Issues	2
P. T. 333	Pediatrics	<u>2</u>
		15

Spring Semester

P. T. 344	Directed Clinical Experience in Physical Therapy III	<u>3</u>
	Total:	52

FACILITIES

Duke University is an accredited, private coeducational institution of more than 9,000 students. Formerly Trinity College, the University was created in 1924 by tobacco industrialist James Buchanan Duke through an endowment that named the school in honor of his father, Washington Duke. Today, Duke University includes the neo-Gothic-style West Campus, site of the magnificent Duke Chapel, and the Georgian-style East Campus.

Duke University Medical Center comprises Duke University Hospital, the School of Medicine and the School of Nursing on the university campus, and Sea Level Hospital near Beaufort, N.C. Graduate students in the physical therapy program have the full educational resources of the medical center available to them, as do the medical, nursing and other allied health students. Duke University Hospital is a teaching institution comprising South and North divisions, the latter having opened in 1980. The hospital is licensed for 1008 beds. The Seeley G. Mudd Communication Center/Library is a superb facility housing approximately 180,000 volumes and 2,500 current journals, a reserve reading room, group and individual study rooms, and a large central reference and periodicals area. Additionally, the building serves as a regional storage and retrieval center for computerized medical information. Also

within the Medical Center are the Comprehensive Cancer Center, Center for the Study of Aging and Human Development and the Eye Center.

Clinical education sites are selected from a list of University-approved settings. Facilities located primarily in the Southeast and mid-Atlantic states are used during the summer; facilities throughout the country are used during the spring semester. Participating clinical facilities include:

- Arlington Hospital—Arlington, VA
- Baton Rouge PT & Spts Therapy Ctr.—Baton Rouge, LA
- Boulder Memorial Hospital—Boulder, CO
- Children's Hospital of Northern California—Oakland, CA
- Children's Hospital—Richmond, VA
- Dartmouth-Hitchcock Med. Ctr.—Hanover, NH
- Duke University Medical Center—Durham, NC
- Durham County General Hospital—Durham, NC
- Fallon Clinic—Worcester, MA
- Flanders PT Center—Portland, OR
- Forsyth Memorial Hospital—Winston-Salem, NC
- Gallup Indian Medical Center—Gallup, NM
- Greenville Hospital Systems—Greenville, SC
- Good Shepherd Rehab. Hospital—Allentown, PA
- John F. Kennedy Institute—Baltimore, MD
- Keller Army Hospital—West Point, NY
- Lenox Baker Children's Hospital—Durham, NC
- Les Passes Children's Rehab Ctr.—Memphis, TN
- Magee Memorial Hospital—Philadelphia, PA
- Medical University of South Carolina—Charleston, SC
- Memorial Mission Hospital—Asheville, NC
- Milton Hershey Medical Center—Hershey, PA
- National Institutes of Health—Bethesda, MD
- New England Rehab. Hospital—Woburn, MA
- Orthopedic & Sports Physical Therapy—Cupertino, CA
- Pomona Valley Community Hospital—Pomona, CA
- Prince George's Co. Health Dept.—Cheverly, MD
- Rancho Los Amigos—Downey, CA
- Rehab. Services of Columbus—Columbus, OH
- Rex Hospital—Raleigh, NC
- Santa Clara Valley Medical Center—San Jose, CA
- Sharp Rehabilitation Hospital—San Diego, CA
- Spalding Rehabilitation Center—Denver, CO
- U.S. Institute of Surgical Research—Fort Sam Houston, TX
- Univ. of Wisconsin Hosp. & Clinics—Madison, WI
- VA Hospital—Durham, NC
- Wake County Medical Center—Raleigh, NC
- Womack Army Hospital—Ft. Bragg, NC
- Woodrow Wilson Rehab. Center—Fishersville, VA

Duke University does not discriminate on the basis of race, color, national or ethnic origin, sex or handicap, in the administration of admissions policies.

ADMISSION

Requirements for admission to the physical therapy program include a baccalaureate degree, comple-

tion of prerequisite courses, Graduate Record Examination (GRE) aptitude test scores, the filing of an application, and, upon invitation, a personal interview. Interviews will not be granted unless the applicant has completed a sufficient number of prerequisite courses in the natural sciences (approximately 18 semester hours, of which six should be in Biology) to allow an adequate evaluation of his performance.

To meet the closing date of January 15, it is strongly recommended that the GRE be taken no later than the October test date. The application and all supportive documents must be received by the Graduate School Office of Admissions by January 15 and only completed applications are forwarded to the Graduate Program in Physical Therapy. No application forms are mailed after December 15. Only students for full-time study are accepted. State residence does not influence admission policies or tuition costs.

Minimum Prerequisites

	Courses	Sem. Hrs.	Qtr. Hrs.
I. NATURAL SCIENCE			
<i>Biology</i>			
** Human Anatomy	1	3-4	4.5-6
** Human Physiology	1	3-4	4.5-6
Other	2	6-8	9-12
Recommended:			
Comparative Anatomy			
Embryology			
History/Microanatomy			
Exercise Physiology			
<i>Chemistry</i>	2	6-8	9-12
Biochemistry strongly recommended			
<i>Physics</i>	2	6-8	9-12
Physics must include principles of heat, light, electricity, mechanics and sound			
Natural Science Total:	8	24-32	36-48
II. SOCIAL SCIENCES/HUMANITIES			
<i>Psychology</i>	2	6	9
Other	3	9	13.5
Recommended:			
abnormal psychology			
child psychology			
scientific and technical writing			
social anthropology			
Social Sciences/Humanities Total:	5	15	22.5

** These courses must have been completed within 5 years of the date of application. It is encouraged that they be taken in a natural science department. Laboratories are strongly recommended.

Applicants are required to meet all prerequisite coursework with a Grade of C or better.

FINANCIAL INFORMATION

Approximate costs for the two-year program are calculated annually; refer to the enclosed insert for the approximate schedule.

All students are encouraged to seek individual sources of financial assistance. Loans may be available through the Duke University School of Medicine. Financial aid information is mailed to all applicants to the program. Applications for loan assistance are mailed only to students accepted into the program.

ACCOMMODATIONS

Limited accommodations for graduate students are available on campus. If on-campus housing is desired, housing applications should be mailed, immediately after admission to the program to the: Housing Administration, 016 West Union Building, Durham, NC 27706.

For off-campus housing or for a listing of accommodations in Durham and the surrounding area, contact the Central Campus Housing Office, 217 Anderson Street, Durham, NC 27705.

FOR FURTHER INFORMATION

The Graduate School Office of Admissions provides the *Bulletin of Duke University—The Graduate School*. The bulletin contains information pertinent to all departments including admissions requirements, course listings and general information about the University. To request the bulletin, write the Office of Admissions, The Graduate School, 127 Allen Building, Duke University, Durham, NC 27706, or telephone (919) 684-3913.

Specific inquiries about the physical therapy graduate program and requests for applications should be sent to:

Director of Graduate Studies
 Department of Physical Therapy
 P.O. Box 3965
 Duke University Medical Center
 Durham, NC 27710
 (919) 684-3135

August 1987

DUKE UNIVERSITY:

Course of Study in Chronological Order

Fall Semester

<u>Course No.</u>	<u>Title and Description</u>	<u>Credit Units</u>
ANA 305	<u>Gross Human Anatomy.</u> Includes complete dissection of a cadaver; laboratory work is supplemented by conferences which place emphasis upon biological and evolutionary aspects. Prerequisites: adequate background in biology, including comparative anatomy and embryology and written consent of instructor.	3
P.T. 301	<u>Introduction to Scientific Inquiry.</u> Theories and methods of research process, research design, and data collection; preparation of a research proposal.	3
P.T. 313	<u>Physical Agents.</u> Physical aspects and physiological effects of selected physical agents, including massage, superficial heat and cold, ultraviolet, diathermy, and ultrasound.	2
P.T. 317	<u>Kinesiology.</u> Fundamentals of arthrology and myology, movement and joint description, surface anatomy, principles of biomechanics and anthropometry.	2
P.T. 319	<u>Introduction to Evaluation and Patient Care.</u> Orientation to basic patient care skills, including reaction to illness. Introduction to Problem-Oriented Record System. Principles and methods of evaluation, including assessment of muscle function, joint mobility, neurological and respiratory function, posture, gait, and physical level of independence. Opportunities for direct patient care in laboratory and clinic.	3
P.T. 334	<u>Introductory Pathology.</u> A review of normal cells and tissues; fundamentals of pathology with emphasis on the broad concepts of disease.	2

Spring Semester

ANA 309	<u>Basic Neurobiology.</u> An integrated interdepartmental course designed for the first year medical students and other professional students who need a core course on the morphology and functions of the mammalian nervous system. Lectures, laboratory demonstrations, clinical conferences and lecture conferences during the month of January only. Prerequisites: ANA 305, ANA 307, BCH 200 and PHS 200 or equivalents. C-L: Physiology 202.	4
P.T. 314	<u>Electrotherapy and Electrodiagnosis.</u> Physical aspects and therapeutic effects of electrical currents. Electrodiagnostic testing, introduction to electromyography and nerve conduction studies.	1

Spring Semester (continued)

<u>Course No.</u>	<u>Title and Description</u>	<u>Credit Units</u>
P.T. 318	<u>Arthrology and Pathokinesiology.</u> Detailed study of the arthrology and kinesiology of the trunk and limbs during normal and pathological conditions, with emphasis on the sequential electromyographic and joint motion analysis of body segments during selected human movement patterns, including locomotion.	3
P.T. 320	<u>Evaluation and Therapeutic Procedures I.</u> Specific assessment of neuromuscular and cardiopulmonary functions. Physiological basis of therapeutic intervention and specific exercise programs.	3
P.T. 335	<u>Orthopedics.</u> Detailed examination of the musculo-skeletal system, through lecture and laboratory, and the application of findings to the establishment of physical therapy care plans. Introduction to common orthopedic problems and their medical and surgical management.	2
P.T. 336	<u>Medical Sciences.</u> The clinical manifestations and management of common medical and surgical disorders. Lectures by physicians, physical therapists, clinical pharmacists, and other health personnel; selected laboratory experiences. Areas covered include prosthetics and orthotics, burns, rheumatology, cardiopulmonary disorders, neurology, neurosurgery, hematology and gerontology. Seminars in patient management.	3

Summer Semester

P.T. 321	<u>Evaluation and Therapeutic Procedures II.</u> Assessment and treatment of specific neuromuscular problems. Introduction to techniques of neuromuscular facilitation.	2
P.T. 343	<u>Directed Clinical Experience in Physical Therapy II.</u> Full-time supervised clinical learning experiences in physical therapy settings within limited radius of the University.	2

Fall Semester

P.T. 303	<u>Research.</u> Completion of a research project under the supervision of a faculty advisor; instruction in statistical techniques and the use of the computer.	3-5
P.T. 322	<u>Evaluation and Therapeutic Procedures III.</u> Introduction to the neurophysiological basis for evaluation and treatment of children and adults with central nervous system disorders; emphasis on assessment of abnormal movement and selection of appropriate therapeutic programs. Problems associated with spinal cord injuries, methods of therapeutic intervention, and functional testing.	3

Fall Semester (continued)

<u>Course No.</u>	<u>Title and Description</u>	<u>Credit Units</u>
P.T. 332	<u>Physical Therapy & Health Services. Administration and Issues.</u> Planning, organizing, delivering, and evaluating physical therapy and health services. Examination of health policy and issues. Principles of administration, leadership styles, and management roles.	2
P.T. 333	<u>Pediatrics.</u> Description and observation of the development of the normal child, followed by the discussion of various pediatric problems.	2
Electives, including:		3-5
P.T. 340	<u>Special Topics in Physical Therapy.</u> Opportunity for study under the direction of an individual faculty member. Prerequisite: consent of Director of Graduate Studies.	Credits arranged

Spring Semester

P.T. 334	<u>Directed Clinical Experience in Physical Therapy III.</u> Full-timed supervised clinical learning experiences in physical therapy settings throughout the country.	3
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TOTAL CREDIT UNITS 52

MASTER OF PHYSICAL THERAPY DEGREE PROGRAM

The Master of Physical Therapy (M.P.T.) degree program allows students to obtain basic competencies essential for physical therapy practice and for developing leadership skills within the profession. In addition, students in the M.P.T. program conduct a research project and study in advanced specialized areas.

The practical application of physical therapy skills is based on a concept of health care with three major characteristics. Firstly, the welfare of the client is the basis of health care. Secondly, health care is dynamic; changes constantly are being made to incorporate advances in methods of care as well as delivery of care. Thirdly, the quality of care depends on the extent to which the needs of the individual client are met.

PROGRAM OF STUDY

Students in the physical therapy program use the problem-solving process to demonstrate expertise in applying physical therapy's theoretical framework to basic, behavior, social and medical sciences. Skill is shown in (1) participation in planning, implementing and evaluating the teaching/learning process; (2) provision of therapeutic services; (3) an active recognition of the rights and dignity of the individual in planning and administering programs of care; (4) use of basic principles of research in critical analysis of concepts and findings generated by self and others; (5) participation in the administration of a defined physical therapy service; and (6) consultation with others for the purpose of providing comprehensive care.

The educational design directly reflects the presented concept of health care and the objectives of the program. Integration of learning and the humanistic approach accustoms the student to focus on the client's changing needs simultaneous with engaging in appropriate processes to meet those needs. Use of a problem-solving approach in program planning provides the student with a mechanism for responding to the problems of clients and affecting the direction of change in health care system. And finally, development of process skills necessary for multiple roles of a physical therapist enables the student to participate in the expanding scope of the health care system in a variety of settings.

DEGREE REQUIREMENTS

1. Students must complete a residency of seven semesters of academic study including 18 weeks of full-time clinical education.
2. Satisfactory completion of 94 semester hours of work, including didactic and clinical courses and electives.

3. Satisfactory completion of all course work with an overall average of B (a grade of B or above must be earned in all physical therapy courses, and a grade of C or above must be earned in other courses).
4. Successful completion of each clinical assignment with a grade of B or above.
5. Recommendation for continuation each semester by the Academic Affairs Committee.

ADMISSION REQUIREMENTS

1. Baccalaureate degree from an accredited college or university.
2. A completed application, accompanied by a non-refundable fee of \$25.00. To be considered for January admission, all applications materials must be received no later than the preceding March 1.
3. Recommendations completed by three individuals on the forms provided.
4. Three essay questions to be answered by the applicant and attached to the application. Also, a thorough listing of physical therapy experiences must be included, as requested, in the application.

NOTE: The applicant should assure that all required application materials are received by the Division of Physical Therapy by the March 1 deadline. A follow up inquiry by the applicant TO SOURCES of transcripts, references, proof of degree and test scores helps to be sure that these materials are sent in a timely manner.

5. Satisfactory completion of verbal and quantitative sections of the Graduate Record Examination (G.R.E.) and the Miller Analogy Test. These examinations should be taken at least six weeks before the March 1 deadline to allow receipt of test scores by that deadline.
6. Successful completion of a 3 semester hour course in human anatomy and a 3 semester hour course in human physiology within three years of matriculation into the program. Laboratories are required with these courses.
7. Successful completion of a statistics course within three years of matriculation. Course should include parametric and non-parametric statistics. Computer interaction is desirable.
8. Following receipt of all materials, each applicant is individually evaluated to determine abilities related to the program of study.

COURSE OUTLINE**I. BASIC SCIENCES**

Gross Anatomy
Neuroanatomy
Developmental Anatomy
Neurophysiology

II. PHYSICAL THERAPY

Theory & Practice
Physical Agents
Clinical Electrophysiological Techniques
Clinical Kinesiology
Neurological Approaches I
Neurological Approaches II
Neurological Approaches III
Orthopedic Physical Therapy I
Orthopedic Physical Therapy II
Rehabilitation Principles
Prosthetics & Orthotics I
Prosthetics & Orthotics II
Cardiopulmonary Physical Therapy

III. MEDICINE & SURGERY

Medical Foundations I: Medicine & Surgery
Medical Foundations II: Cardiopulmonary
Medical Foundations III: Psychiatry

IV. BEHAVIORAL, SOCIAL & ETHICAL ISSUES

Life Span Development
Values & the Health Professions I
Values & the Health Professions II

V. SEMINARS

Seminar I: Introduction to Professional Practice
Seminar II: Organization and Administration

VI. RESEARCH

Research Processes I
Research Processes II
Research Processes III
Research Processes IV

VII. EDUCATION

Teaching-Learning Theory