



MEMORANDUM

TO: President Edward T. Foote, II

FROM: Dr. John Knoblock JK
Chairman, Faculty Senate

DATE: May 6, 1988

SUBJECT: Faculty Senate Legislation #87024(B)-
Bachelor of Science Degree in Psychobiology

The Faculty Senate, at its meeting of April 11, 1988, voted to approve Faculty Senate Legislation #87024(B) - Bachelor of Science Degree in Psychobiology. The text of the legislation is attached for your action.

JK/b

Attachment

cc: Provost Luis Glaser



Faculty Senate
325 Ashe - Admin. Bldg.
Coral Gables, Florida 33124
(305) 284-3721

Faculty Senate Action, 87024
Class B Legislation

The Faculty Senate at its meeting of April 11, 1988 approved the creation of *Bachelor of Science* degree in Psychobiology in the College of Arts and Sciences. A description of the program is attached.

PSYCHOBIOLOGY MAJOR

What is Psychobiology?

Psychobiology, the study of the biological bases of behavior, is an interdisciplinary program geared toward the student with strong interests in the disciplines of psychology and biology.

This rigorous major is designed for the highly qualified, highly motivated undergraduate student preparing for further study in any of the following:

1. Health-related professional schools (Medical School, Dental School, Veterinary School, etc.)
2. Graduate study in biology and/or related fields, including neurobiology, animal behavior and behavioral ecology
3. Graduate study in psychology and/or related fields, such as psychobiology, neurosciences and behavioral medicine

Degree Requirements

Psychobiology is a program for superior students leading to the Bachelor of Science (B.S.) degree. The curriculum is comprised of seven courses in psychology, seven courses in biology, basic courses in chemistry, mathematics, physics and the distributive requirements to earn the degree. There is no minor requirement for this program. Completion of the program requires a minimum of 130 credits.

This program is open to freshmen who meet admission requirements for the Honors Program (SAT scores of 1200 or above; GPA of 3.3 or higher). Students may be admitted on an individual basis to the program after completion of 24 credit hours of course work at the University of Miami.

The Psychobiology major is administered jointly by two Program Directors, one from Biology and one from Psychology, appointed by the Chairpersons of the respective departments. The Program Directors have joint authority to approve advanced students for admission to the major.

Bachelor of Science in Psychobiology

College of Arts & Sciences
Distributive Requirements

	<u>Credits</u>
English Composition	6
Foreign Language (French, German or Russian preferred)	9
Humanities	18
History/Social Sciences (3 hours of this requirement must include Honors 145 or Psychology 101)	18
Total Distribution =	51

(Over)

<u>General Science Requirements</u>	<u>Credits</u>
Mathematics 111, 112 or 131, 132	8
Physics 101 with 106 and 102 with 108, or 211 with 222 and 212 with 236.	10
Chemistry 111, 112 and 201 with 203, 202	16
Total General Science	= 34

Major Requirements in Psychology and Biology (Core)

Biology 111 - General Biology	4
Biology 112 - General Biology	4
Biology 216 Genetics and Evolution	3
Biology 218 Cellular and Molecular Biology	4
Psychology 102 General Principles of Psychology as a Biological and Behavioral Science	3
Statistics 204 Statistical Methods	3
Psychology 402 Psychobiology	3
Psychology 403 Laboratory in Psychobiology	2
Total Core	= 26

Upper Division Major Requirements in Psychology and Biology

A student must take 6 additional upper division courses in Psychology and Biology. Three courses are to be selected from Psychology and three from Biology. Normally, students in Psychobiology will be expected to take Bil 319 and two other courses from the following listings: Bil 202, 301, 310, 324, 533, 540, 560. The Psychology elective list includes Psy 316, 318, 332, 345, 350, 352, 405, 420, 430, and 444. Students may petition to substitute a course not on the list, e.g., Psy 498 and 499.

The major in Psychobiology consists of a minimum of 45 credit hours in Biology and Psychology, and a maximum of 49 credit hours, depending on selection of elective major courses.

Special Considerations

The Departments do not anticipate special course sections for Psychobiology majors; therefore, these students will enroll in regularly scheduled courses and sections and Honors sections, whenever possible.

The Psychobiology program is not a substitute for the planned B.S. program in Psychology. This latter major has been waiting upon the development of psychology laboratory courses. This program is near realization with the availability of the new Behavioral Medicine Research Building.

(Over)

Biology Courses in Psychobiology Major

CORE

BIL 111 - General Biology - 4 cr.

Basic principles of biology, covering cell structure and function, genetics and development, and the physiology of organisms. Lecture, 3 hours; laboratory, 3 hours.

BIL 112 - General Biology - 4 cr.

Basic principles of biology, covering plant and animal diversity, ecosystems, behavior, and evolutionary theory. Lecture, 3 hours; laboratory 3 hours.
Prerequisite: BIL 111.

BIL 216 - Genetics and Evolution - 3 cr.

Basic principles of heredity and genome organization; population genetics; study of evolutionary forces, including maturation and natural selection. Lecture, 3 hours, Prerequisite: One year of biology with laboratory.

BIL 218 - Cellular and Molecular Biology - 4 cr.

The structure, molecules and functions of cells. Prerequisite: BIL 216 and one semester each of calculus and organic chemistry.

ELECTIVES - (3 to be selected; a minimum of one from each group)

Group A

BIL 202 - Comparative Vertebrate Anatomy - 4 cr.

Anatomy, classification, function, distribution, and evolution of vertebrate animals and their relationships to the environment. A basic course for biology majors and minors, premedical, pre dental and preveterinary students. Lecture, 2 hours; laboratory, 6 hours. Prerequisite: one year of biology with laboratory.

BIL 301 - Cytology and Histology - 3 cr.

Structure and function of cells and cell organelles, including a survey of selected cell and tissue types in the vertebrate body. Lecture, 3 hours.
Prerequisite: BIL 112 or equivalent. Background in college-level chemistry and physics recommended.

BIL 310 - Developmental Biology - 4 cr.

Principles of differentiation, morphogenesis and development will be studied along with a critical analysis of the methods used to study these problems. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: BIL 218.

Group B

BIL 319 - Animal Physiology - 3 cr.

Principles of homeostasis and behavioral integration. Physiological and structural adaptations of animals to their environments. Prerequisite: BIL 216, 218 or permission of instructor.

BIL 324 - General Ecology - 4 cr.

Basic principles of the ecology of populations, communities, and ecosystems. Lecture, 3 hours; laboratory, 3 hours, some Saturday field trips. Prerequisite: BIL 216 or permission of instructor.

BIL 533 - Biometry (only for students going into research) - 3 cr.

Descriptive and analytical statistics as used in biology. Emphasizes sampling, presentation of quantitative data, probability theory applications, distributions, parametric and non-parametric test procedures. Prerequisite: One year of calculus or permission of instructor.

BIL 540 - Ethology: The Evolution of Behavior - 3 cr.

Evolutionary and comparative approach to current concepts in animal behavior and emphasizing functions and mechanisms of behavior. Topics include genetics of behavior, communication, territoriality, navigation, mating systems, and sociobiology. Prerequisite: Genetics and Ecology or permission of instructor.

BIL 560 - Population Genetics - 3 cr.

Theories of genes in populations, including an analysis of the genetic basis of microevolution; current examples from natural and experimental populations. Lecture and discussion, 3 hours. Prerequisite: BIL 216 and a year of calculus or their equivalents. A course in elementary statistics is strongly recommended.

Psychology courses in Psychobiology Major

CORE

Psychology 102 - General Principles of Psychology as a Biological and Behavioral Science - 3 cr.

Introduction to the basic principles and methods of psychology as a biological and behavioral science. Topics surveyed include learning, memory, thinking, perception, drug influences upon behavior, and the physiological bases of development, sensation, motivation, emotion and other aspects of behavior.

Statistics 204 - Statistical Methods in Social Studies - 3 cr.

Introduction to methods needed in the analysis of data by students in the fields of psychology, sociology, human relations, and similar areas. Prerequisite: MTH 101 or 102 or 105, or scores on the Mathematics placement test sufficient to allow admission to MTH 110 or 131.

Psychology 402 - Psychobiology - 3 cr.

Basic neuroanatomy, neurophysiology, and neurochemistry followed by an introduction to the physiological bases of sensation, motor systems, motivation, emotion, learning and memory. Prerequisite: nine credits in Psychology for Psychology majors or permission of the instructor for non-majors.

Psychology 403 - Laboratory in Psychobiology - 2 cr.

Basic neuroanatomy and selected laboratory experiments in psychopharmacology motivated behavior, sensory and motor systems, learning, and human psychophysiology. Standard physiological psychology laboratory procedures and techniques such as stereotaxic surgery, electrical stimulation, lesioning, perfusion, histology, and computer applications in research will also be taught. Two three-hour labs per week. Prerequisite: Psychology 402 or concurrent enrollment, and either Psychology 316 or 318.

ELECTIVES - (3 to be selected)

Psychology 316 - Experimental Psychology - 4 cr.

Selected laboratory experiments and demonstrations, lectures, collateral readings in methods and results of psychological experimentation. Prerequisite: Psy 101 or 102 and Sta 204.

Psychology 318 - Experimental Personality and Social Psychology - 4 cr.

Readings, laboratory experiments, and demonstrations on methodology, design, implementation, and interpretations of research. Lecture 3 hours, laboratory 2 hours. Prerequisite: Psy 101 or 102; and Sta 204.

Psychology 332 - Tests and Measurements - 3 cr.

Theory and principles of construction, use, evaluation, and interpretation of psychological tests and testing procedures. Prerequisite: Psy 101 or 102 and Sta 204.

(Over)

Psychology 345 - Nutrition & Behavior - 3 cr.

The role of food in the body and brain and its effect on behavior. The effects of food additives, megavitamin therapy, sugar, cholesterol, fad diets, obesity, anorexia, malnutrition, nutritional deficiencies, alcohol and drug-vitamin interactions on behavior. Prerequisite: Six credits in psychology.

Psychology 350 - Psychology of Human Sexual Behavior - 3 cr.

Interaction of biological and social factors in normal sexual development, and behavior patterns, etiologies of dysfunctions; paraphilias and gender-identity disorders; assessment and intervention procedures. Prerequisite: Six credits in Psychology

Psychology 352 - Abnormal Psychology - 3 cr.

Diagnostic formulations of the clinical syndromes; theories of psychopathological states. Prerequisite: Six credits in Psychology.

Psychology 405 - Animal Behavior - 3 cr.

Interdisciplinary and comparative approach to factors affecting behavior of animals at different phylogenetic levels. Prerequisite: Nine credits in Psychology for Psychology majors or permission of instructor for non-majors.

Psychology 420 - Psychology of Medicine - 3 cr.

Survey of applied psychology in medicine. Includes stress and disease etiology; psychosomatics; health beliefs, symptom recognition; health-care utilization; patient-practitioner communication; adherence to therapeutic regimens; patient satisfaction, emotional adjustment to illness; and rehabilitation. Prerequisite: Nine credits in Psychology for majors, or permission of instructor for non-majors.

Psychology 430 - Principles of Behavior - 3 cr.

Intensive review of strategies for behavioral change. Methods of behavioral analysis. Applications to non-laboratory situations. Prerequisite: Senior standing; for non-majors nine credits in psychology or permission of instructor.

Psychology 444 - Intermediate Psychological Statistics - 3 cr.

Statistical reasoning and methods. Prerequisite: Sta 204 or equivalent and nine credits in Psychology.

PROGRAM IN PSYCHIOBIOLOGY:

A major in psychobiology leading to the Bachelor of Science degree is offered jointly through the Departments of Psychology and Biology. This rigorous major is designed for students preparing for health-related professional schools or graduate study in such fields as biology, neurobiology, behavioral ecology, ethology, psychology, psychobiology, neurosciences, and behavioral medicine. The program requires a minimum of 130 credits. There is no minor requirement. Admission is open to freshmen with SAT scores of 1200 or above and GPA of 3.3 or higher. Advanced students may be admitted on an individual basis after completion of 24 credit hours at the University of Miami. Details are available from either the Program Director in Biology or Psychology.

Distributive requirements are the same as for other B.S. degrees with the following exceptions:

1. three credits of the History/Social Sciences requirement must include Psychology 101.
2. Mathematics must include eight credits of 111-112 or 131-132.
3. Physics must include 10 credits of 101 with 108 and 102 with 108, or 211 with 222 and 212 with 236.
4. Chemistry must include 16 credits: 111, 112, 201, and 202 with 203.

The major core requirements for the psychobiology major include BIL 111, BIL 112, BIL 211, BIL 311, PSY 102, PSY 204, PSY 402 and PSY 403. In addition, three additional courses will be selected from Biology and three courses from Psychology. Normally, students will take BIL 319 and two courses selected from BIL 202, BIL 301, BIL 310, BIL 324, BIL 533, BIL 540, BIL 560. The three courses from Psychology will be selected from PSY 316, PSY 318, PSY 332, PSY 345, PSY 350, PSY 352, PSY 405, PSY 420, PSY 430, PSY 444. Exceptions may be made by petition to the appropriate Director. Special note: PSY 316/318 is a nonnegotiable prerequisite for PSY 403.

CAPSULE:

Faculty Senate Legislation #87024(B) -
Bachelor of Science Degree in Psychobiology

RESPONSE BY THE PRESIDENT:

DATE: 5/25/28

APPROVED: Yes SD

OFFICE OR INDIVIDUAL TO IMPLEMENT OR PUBLISH: _____

EFFECTIVE DATE OF LEGISLATION: _____

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

Proposal for the Degree in Psychobiology - (First Reading)

Dean David Wilson, College of Arts and Sciences, explained the background of the psychobiology major that has been in existence since 1983. He noted that the program approved by the College Council had never been forwarded to the Senate for approval. As part of his presentation, Dean Wilson responded to questions raised by the Senate review committee. Upon recommendation of the Senate Council, it was *moved*, and seconded, to approve the program as presented. The *motion carried*. A *motion* to waive the second reading was *unanimously adopted*.

Proposal for Degree in Physical Therapy (First Reading)

Dr. Pamela Ferguson, Dean of the Graduate School, briefly summarized the background of the existing Physical Therapy Program and its move from the School of Education to the Medical School in May 1985. Professor Sherrill Hayes, Director of the program, presented the Master of Science in Physical Therapy requirements and the Master of Science program and discussed the difference between the two programs. Upon recommendation of the Senate Council, it was *moved*, and seconded, to approve the program as presented. The *motion was unanimously adopted*. A *motion* to waive the second reading *carried*.


Report on Parking

The Senate reconfirmed its position that faculty ought to have a closed-access parking lot in which there is no ticketing for faculty and that the lot should be provided from the fringe benefit rate. The *motion carried by acclamation*. The Chairman noted that the recommendation from the Associate Vice President for Business Affairs was consonant with the Senate's recommendation with the exception that it still permits ticketing.

General Education Requirements (Revised)

Dr. Knoblock reviewed the revised General Education Requirements document. It was *moved*, and seconded, to address the issue of areas of knowledge in the final document and to appoint an editorial committee to deal with this and other questions of style. The *motion carried*. It was *moved*, and seconded, to approve the mathematics requirement as written, with the request that the School of Business appropriately describe and label MAS 110 to reflect its content. The *motion carried with two opposed*. The *main motion as amended was unanimously adopted*.

The meeting adjourned at 5:40 P.M.


Barbara L. Hoadley
Secretary to the Faculty Senate

Section 2.7, request specific number of credit hours following format already stated

Section 2.7.1, repeat current policy

Section 3.6.6, disapprove inserting "probationary" before "appointment" in each paragraph on grounds of style

Section 3.7, request explanation of retirement age

Section 4.3.3, request explanation for proposed change

Section 4.3.4, "disability" is not grounds for termination of tenure

Section 4.4, leave "Declared" in title

Section 4.4.2, disapprove as grammatically unsound

Section 4.5, strike "or Provost" and substitute "President"

Section 6.6.3, disapprove since "normally" is not used in a norm

Section 8.1, reaffirm 35 as a large department

Section 8.2, request insertion of "reasonable opportunity"

Section 9.1.2, reject the proposed change

Section 9.4 - It was *moved*, and seconded, to reaffirm the existing language of this section. The *motion was unanimously approved*.

Section 9.5.2, defer until administration proposes appropriate language

Faculty Senate Legislation #87007(A) - Charter Amendment on Graduate School

The Council requested that the Chairman speak with the Provost concerning his memorandum of March 28 regarding Faculty Senate Legislation #87007(A) - Charter Amendment on Graduate School.

Report on General Education Requirements

It was *moved*, and seconded, to agenda the Report on General Education Requirements for the April 11 Senate meeting, with the recommendation of the Senate Council. The *motion carried*.

Report on Psychobiology Proposal

Dr. Neider presented the report of the ad hoc committee to review the Psychobiology proposal. The committee enthusiastically recommended the proposal to the Senate for approval. The *motion to approve carried*.

Policy on Fraud and Misconduct in Science

Dr. Robert Rubin, Chairman of the University Patent and Copyright Committee, informed the Council that his committee had developed a policy dealing with fraud in research. He suggested that the Research Council meet with his committee to reconcile the two policies. Ms. Janice Hinds, Director of Research and Sponsored Programs, agreed to present to the Research Council the Senate Council's view that



M E M O R A N D U M

April 4, 1988

TO: Dr. John Knoblock
Chairman
Faculty Senate and Government

FROM: Faculty Senate Program Evaluation Committee for
the Psychobiology Major
Dr. Anthony T. Allegro,
School of Communication
Dr. Linda L. Neider,
School of Business Administration
Dr. Myron Rosenthal, School of Medicine
Dr. Frederick C. Tims, School of Music

SUBJECT: Review of Psychobiology Major

Our committee met this morning, after an in-depth individual review of material relevant to the psychobiology major (including its' faculty, students, curriculum, etc.). Given the rigor of the curriculum, the quality of the students currently enrolled, and the impeccable qualifications of the faculty associated with it, we enthusiastically support the "post hoc" approval of this program. There were, however, a few issues that our committee would like to see addressed:

(1) Curriculum

- o Since the goal of at least one-third of the students in this program seems to be enrolling in Medical School, we wondered why a course in Physical Chemistry (CHM 360) was not required...
- o Considering the fact that most of the psychobiology program faculty have nationally known research records, we wanted to know whether or not students have the opportunity to take Directed Studies (in a relevant research area) with any of them...

.../2

Dr. John Knoblock
Faculty Senate and Government
April 4, 1988
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(2) Resource Issues

- o Does our current library have the necessary resources (in terms of journals) to support student interest in this area? Are there any resources to support updated research material in this field?

LLN/ss

Memorandum

March 24, 1988

TO: Linda Neider, Chair
Ad Hoc Committee Regarding Psychobiology Major
Faculty Senate Council

FROM: Robert B. Tallarico *RBT*
Director, Psychobiology Major
Department of Psychology

SUBJECT: Additional Requested Information: Psychobiology Major

1. Enclosed please find the additional requested information regarding the Psychobiology Major:

- a. high school grade point averages of students currently in program, and
- b. listing of psychobiology major at other institutions of higher learning. The page is photocopied from the 1987 Peterson's Guide to Four-Year Colleges.

Students Found on Psychology Registrar Records

<u>Psychobiology Majors</u>	<u>SAT</u>		<u>GPA/cr</u>	<u>Psy Codes</u>	<u>Post Baccalureate Plans</u>	High* School GPA
	<u>V</u>	<u>Q</u>				
Santa-Cruz, Carols J.	641	642	3.839	POMP	Med School UM, So Fla, Fla	N.A.
Read III, Thomas L.			3.413/136	PRGP	Behavioral Medicine	N.A.
Marcy, Michael J.	481	651	3.141/108	PRGP		4.026
Lindsay, Dana L.	591	745	3.702/125	PRGP	Med School, Tulane, Chicago	3.91
Delarno, Ramiro E.	412	461	3.382	PRMP		N.A.
Andrade, Idayna	582	592	3.261/139	PRGP	Behavioral Med?	4.32
Drabity, Gina	521	581	3.317/76	PRMP	Med. School	N.A.
Werb, Sue	700	721	3.718/70	POGP		4.14
Sasser, David C.	651	781	3.933/139	PRMP	Med School, Fla	4.80
Quintana, Lourdes S.	662	592	3.635/116	POMP		4.00
Quetel, Julie	711	591	3.684/145	POGP	Behavioral Medicine	99.7%
Jahrio, Jennifer	540	611	3.341/112	POMP	Med. School	3.80
Cohen, Andrew	611	731	3.828/99	POMP	Clin. Psy /Health Psy	4.462
Mechaber, Alex J.	471	531	3.390/55	POMP		3.514
Black, Douglas J.	531	732	3.440/96	POMP		4.385
Badia, Anais			3.27/91	PRMP		N.A.
Albeg. Julie M.	531	671	3.236/56	POMP		3.64

* Provided by Registrar 3/24/88
 N.A. not available

Majors Directory Political Science/Government—Psychology

U of Lethbridge (Canada)	AB	U of Tennessee at Martin	TN	West Virginia U	WV	U of Connecticut, Storrs	CT	Towson State U	MD
U of Louisville	KY	U of Tennessee, Knoxville	TN	West Virginia Wesleyan Coll	WV	U of Connecticut at Hartford	CT	U of Wisconsin-Platteville	WI
U of Lowell	MA	U of Texas at Arlington	TX	Wheaton Coll	IL	U of Illinois at Urbana-Champaign	IL	Western Michigan U	MI
U of Maine, Orono	ME	U of Texas at Austin	TX	Wheaton Coll	MA	U of Iowa	IA		
U of Maine at Presque Isle	ME	U of Texas at El Paso	TX	Whitman Coll	WA	U of Massachusetts at Amherst	MA		
U of Manitoba (Canada)	MB	U of Texas at San Antonio	TX	Whitman Coll	CA	U of Minnesota, Twin Cities	MN		
U of Mary Hardin-Baylor	TX	U of Texas at Tyler	TX	Widener U, Pennsylvania	PA	U of New Mexico	NM		
U of Maryland Baltimore County	MD	U of Texas of the Permian Basin	TX	Widener U, Pennsylvania	OH	U of North Carolina at Chapel Hill	NC		
U of Maryland Coll Park	MD	U of the District of Columbia	DC	Wilberforce U	OH	U of Pennsylvania	PA		
U of Massachusetts at Amherst	MA	U of the Pacific	CA	Wilfrid Laurier U (Canada)	ON	U of Texas at Austin	TX		
U of Miami	FL	U of the South	TN	Wiles Coll	PA	U of Toronto (Canada)	ON		
U of Michigan, Ann Arbor	MI	U of the State of New York, Regents Coll Degrees	NY	William Jewell Coll	MO	U of Wisconsin-Madison	WI		
U of Michigan-Deerborn	MI	U of Toledo	OH	William Paterson Coll of New Jersey	NJ	U of Wisconsin-Milwaukee	WI		
U of Michigan-Flint	MI	U of Toronto (Canada)	ON	William Penn Coll	PA	Vanderbilt U	TN		
U of Minnesota, Duluth	MN	U of Tulsa	OK	Williams Coll	MA				
U of Minnesota, Morris	MN	U of Utah	UT	William Smith Coll	NY				
U of Minnesota, Twin Cities Cmps	MN	U of Vermont	VT	William Woods Coll	MO				
U of Mississippi	MS	U of Victoria (Canada)	BC	Wilmington Coll of Ohio	OH				
U of Missouri-Columbia	MO	U of Virginia	VA	Wilson Coll	PA				
U of Missouri-Kansas City	MO	U of Washington	WA	Winston-Salem State U	NC				
U of Missouri-St Louis	MO	U of Waterloo (Canada)	ON	Winthrop Coll	NC				
U of Montana	MT	U of Western Ontario (Canada)	ON	Wittenberg U	OH				
U of Montevallo	AL	U of West Florida	FL	Wofford Coll	SC				
U of Nebraska at Omaha	NE	U of Windsor (Canada)	ON	World Coll West	CA				
U of Nebraska-Lincoln	NE	U of Winnipeg (Canada)	MB	Wright State U	OH				
U of Nevada, Las Vegas	NV	U of Wisconsin-Eau Claire	WI	Xavier U	OH				
U of Nevada Reno	NV	U of Wisconsin-La Crosse	WI	Xavier U of Louisiana	LA				
U of New Brunswick, Fredericton (Canada)	NB	U of Wisconsin-Madison	WI	Yale U	CT				
U of New Brunswick, Saint John (Canada)	NB	U of Wisconsin-Milwaukee	WI	Yeshiva U	NY				
U of New Hampshire, Durham	NH	U of Wisconsin-Oshkosh	WI	York Coll of Pennsylvania	PA				
U of New Haven	CT	U of Wisconsin-Parkside	WI	York Coll of City U of NY	NY				
U of New Mexico	NM	U of Wisconsin-Platteville	WI	York U (Canada)	ON				
U of North Alabama	AL	U of Wisconsin-River Falls	WI	Youngstown State U	OH				
U of North Carolina at Asheville	NC	U of Wisconsin-Stevens Point	WI						
U of North Carolina at Chapel Hill	NC	U of Wisconsin-Superior	WI						
U of North Carolina at Charlotte	NC	U of Wisconsin-Whitewater	WI						
U of North Carolina at Greensboro	NC	U of Wyoming	WY						
U of North Carolina at Wilmington	NC	Upper Iowa U	IA						
U of North Dakota	ND	Upsala Coll	NJ						
U of Northern Colorado	CO	Urbana Coll	OH						
U of Northern Iowa	IA	Urbana Coll	PA						
U of North Florida	FL	Utah State U	UT						
U of Notre Dame	IN	Utica Coll of Syracuse U	NY						
U of Oklahoma	OK	Valdosta State Coll	GA						
U of Oregon	OR	Valparaiso U	IN						
U of Ottawa (Canada)	ON	Vanderbilt U	TN						
U of Pennsylvania	PA	Vassar Coll	NY						
U of Pittsburgh	PA	Villanova U	PA						
U of Pittsburgh, Pittsburgh	PA	Virginia Commonwealth U	VA						
U of Pittsburgh at Bradford	PA	Virginia Polytechnic Inst and State U	VA						
U of Pittsburgh at Greensburg	PA	Virginia State U	VA						
U of Pittsburgh at Johnstown	PA	Virginia Union U	VA						
U of Portland	OR	Voorhees Coll	NC						
U of Puerto Rico, Mayaguez	PR	Wabash Coll	IN						
U of Puerto Rico, Rio Piedras	PR	Wake forest U	NC						
U of Puget Sound	WA	Walsh Coll	OH						
U of Redlands	CA	Washburn U of Topeka	KS						
U of Regina (Canada)	SK	Washington and Jefferson Coll	PA						
U of Rhode Island	RI	Washington and Lee U	VA						
U of Richmond	VA	Washington State U	WA						
U of Rochester	NY	Washington U	MO						
U of St Thomas	TX	Washington U	TX						
U of San Diego	CA	Wayland Baptist U	TX						
U of San Francisco	CA	Waynesburg Coll	PA						
U of Saskatchewan (Canada)	SK	Wayne State U	MI						
U of Science and Arts of Oklahoma	OK	Weber State Coll	UT						
U of Scranton	PA	Webster U	MO						
U of South Alabama	AL	Wellesley Coll	MA						
U of South Carolina, Columbia	SC	Wells Coll	NY						
U of South Carolina at Aiken	SC	Wesleyan Coll	MA						
U of South Carolina at Spartanburg	SC	Wesleyan U	CT						
U of South Carolina-Coastal Carolina Coll	SC	Wesleyan U	DE						
U of South Dakota	SD	West Chester U of Pennsylvania	PA						
U of Southern California	CA	Western Carolina U	NC						
U of Southern Colorado	CO	Western Connecticut State U	CT						
U of Southern Indiana	IN	Western Illinois U	IL						
U of Southern Maine	ME	Western Kentucky U	KY						
U of Southern Mississippi	MS	Western Maryland Coll	MD						
U of South Florida	FL	Western Michigan U	MI						
U of Southwestern Louisiana	LA	Western New England Coll	MA						
U of Steubenville	OH	Western State Coll of Colorado	CO						
U of Tampa	FL	Western Washington U	WA						
U of Tennessee at Chattanooga	TN	Westfield State Coll	MA						
		West Georgia Coll	GA						
		West Liberty State Coll	WV						
		Westminster Coll	MO						
		Westmont Coll	PA						
		West Virginia State Coll	WV						

PSYCHOBIOLOGY

POULTRY SCIENCES

POLLUTION CONTROL TECHNOLOGIES

POLYMER SCIENCE

PORTUGUESE

PRACTICAL NURSING

PRINTING TECHNOLOGIES

PSYCHOLOGY

next page a tiny bit cleaner.

Memorandum

March 16, 1988

TO: Linda Neider, Chair
Ad Hoc Committee Regarding Psychobiology Major
Faculty Senate Council

FROM: Robert B. Tallarico
Director, Psychobiology Major
Department of Psychology

SUBJECT: PSYCHOBIOLOGY MAJOR

1. Enclosed please find the curriculum vitae of relevant faculty to the Psychobiology major.

2. Attached please find the curriculum handout we give to students regarding the Psychobiology major. Credits for PSY 204 reflect the approved change from 3 to 4, effective fall, 1988.

3. Also attached is my current record of Psychobiology majors. They were identified in the Registrar's records by an appropriate code, for example, POMP designates Psychology-Honors-Premed-Psychobiology. SAT scores are provided if they are available as well as GPA and number of credits earned as of 2/1/1988. Their post-baccalaureate plans are as accurate as I can make them.

4. The 1987 Peterson's Guide to Four-Year Colleges lists psychobiology as an undergraduate major in approximately 50 and neurosciences in approximately 15 institutions.

5. Furthermore, the 1987 Guide to Graduate Study in Psychology and Associated Fields published by the American Psychological Association lists approximately 50 Ph.D programs under the heading psychobiology, 50 under neuropsychology, 35 under neurosciences, 35 under behavioral medicine, and 35 under health psychology.

6. From the Medical School Admission Requirements 1988-1989 Bulletin published by the Association of American Medical Colleges, the following 1986-1987 data can be found regarding the percentage of majors accepted to medical schools nationally: Psychology 49%, Biology 51%, and Psychobiology 65%. The latter statistic compares favorably with Biomedical Engineering, 69% and Chemical Engineering, 67%.

If I can further assist you and your committee, please call me.

PSYCHOBIOLOGY REQUIREMENTS BEGINNING FALL 1987

Department of Psychology

University of Miami

PROGRAM SHEET: B.S. DEGREE/PSYCHOBIOLOGY MAJOR

GENERAL REQUIREMENTS

A. ENGLISH COMPOSITION [6 CREDITS]

English Composition I	_3	___
English Composition II	_3	___

B. FOREIGN LANGUAGE [3-9 CREDITS]

_____	_3	___
_____	_3	___
_____ 2xx _____	_3	___

C. HISTORY/SOCIAL SCI [12 CREDITS]

HIS _____	_3	___
PSY 101 OR HON 145 _____	_3	___
_____	_3	___
_____	_3	___

D. HUMANITIES [12 CREDITS]

Fine Arts [3or6]		
_____	_3	___
_____	_3	___
Philosophy/Religion [3or6]		
_____	_3	___
_____	_3	___
Literature [3or6]		
_____	_3	___
_____	_3	___

E. MATHEMATICS [12]

MTH 111 OR MTH 131	_4	___
MTH 112 OR MTH 132	_4	___
PSY 204 Biobehavioral Statistics	_4	___

I. ELECTIVES [to complete 120 credit hours]

_____	___	___
_____	___	___
_____	___	___
_____	___	___

MAJOR/MINOR REQUIREMENTS

F. PSYCHOLOGY [22 CREDITS*]

PSY 102 Intro. BioBehavioral Psy.	_3	___
PSY 204 Biobehavioral Statistics	_4	___
PSY 316/318 Experimental Psych.	_4	___
PSY 402 Psychobiology	_3	___
PSY 403 Psychobiology Laboratory	_2	___
PSY # _____	___	___
PSY # _____	___	___

* 22 PSY credits must average a 2.3 GPA on a 4.0 scale and include 15 credits in upper division courses from the Univ. of Miami Department of Psychology.

See list in Undergraduate Bulletin

G. BIOLOGY [23 CREDITS]

BIL 111 General Biology & Lab I	_4	___
BIL 112 General Biology & Lab II	_4	___
BIL 211 Genetics	_3	___
BIL 311 Cell Biology	_3	___
BIL # _____	___	___
BIL # _____	___	___
BIL # _____	___	___

See list in Undergraduate Bulletin

H. MINOR REQUIREMENTS [26 CREDITS]

CHEMISTRY [16]

CHM 111 Principles of Chm & Lab I	_4	___
CHM 112 Principles of Chm & LabII	_4	___
CHM 201 Organic Chem I	_3	___
CHM 202 Organic Chem II	_3	___
CHM 203 Organic Chem Lab	_2	___

PHYSICS [10]

PHY 101 or PHY 211	_4	___
PHY 106 or PHY 222	_1	___
PHY 102 or PHY 212	_4	___
PHY 108 or PHY 236	_1	___

Students Found on Psychology Registrar Records

<u>Psychobiology Majors</u>	<u>SAT</u>		<u>GPA/cr</u>	<u>Psy</u> <u>Codes</u>	<u>Post Baccalureate Plans</u>
	<u>V</u>	<u>Q</u>			
Santa-Cruz, Carols J.	641	642	3.839	POMP	Med School UM, So Fla, Fla
Read III, Thomas L.			3.413/136	PRGP	Behavioral Medicine
Marcy, Michael J.	481	651	3.141/108	PRGP	
Lindsay, Dana L.	591	745	3.702/125	PRGP	Med School, Tulane, Chicago
Delarno, Ramiro E.	412	461	3.382	PRMP	
Andrade, Idayna	582	592	3.261/139	PRGP	Behavioral Med?
Drabity, Gina	521	581	3.317/76	PRMP	Med. School
Werb, Sue	700	721	3.718/70	POGP	
Sasser, David C.	651	781	3.933/139	PRMP	Med School, Fla
Quintana, Lourdes S.	662	592	3.635/116	POMP	
Quetel, Julie	711	591	3.684/145	POGP	Behavioral Medicine
Jahrio, Jennifer	540	611	3.341/112	POMP	Med. School
Cohen, Andrew	611	731	3.828/99	POMP	Clin. Psy /Health Psy
Mechaber, Alex J.	471	531	3.390/55	POMP	
Black, Douglas J.	531	732	3.440/96	POMP	
Badia, Anais			3.27/91	PRMP	
Albeg. Julie M.	531	671	3.236/56	POMP	

Report on the Bylaw on Faculty Appointment, Promotion, and Tenure

Provost Glaser reported on the discussions concerning the proposed bylaw changes. He stated that some problems still exist with the language of the Educator Faculty portion of the document. Several Council members requested that action be taken on sections which do not appear to have problems. It was noted that the Senate would have to be informed of the President's actions and, in the case of Charter changes, a general faculty vote must be undertaken. The Provost assured the Council that he would expedite the procedure wherever possible.

Psychobiology Proposal

Dr. William Evoy, Department of Biology, presented the existing inter-disciplinary program in psychobiology which consists of the biology and psychology core curriculum and three elective courses from each department. It was noted that although this major was approved by the Arts and Sciences College Council, it was never brought to the Faculty Senate for approval. After discussion, it was *moved* by Dr. Brass, seconded by Dr. Tims, to refer the proposal to a sub-committee for further review and to request a report be prepared for the Council as soon as possible. The *motion carried*. Dr. Knoblock appointed Dr. Neider as chairperson for the sub-committee and requested a written report for the April meeting of the Council.

Report of the Ad Hoc Retirement Committee

Dr. Steven Green, Chairman of the Ad Hoc Retirement Committee, stated that the committee had been appointed to investigate three areas: 1) the inequities between the Employee Retirement Plan and the Faculty Retirement Plan with regard to the rationale of the choices available to faculty to switch plans; 2) the overfunded status of the Employee Retirement Plan; and 3) the pending tax reform legislation. He discussed two proposals being considered by the committee: 1) to eliminate the Employee Retirement Plan and enroll everyone in a defined contribution plan with certain provisions for those people who may have better benefits in the present Employee Retirement Plan; and 2) to provide a cash balance plan where everyone enrolled would have an identified amount in their personal retirement account. These proposals will be presented to the administration by Treasurer Diane Cook and then to the Board of Trustees.

Review of OSCAR (Computerized Registration)

Dr. Thompson Biggers, Associate Dean for Enrollment Services, reviewed the on-line student computerized academic registration (OSCAR) and distributed several forms to be used by students and faculty during the registration process. He suggested that faculty should advise students into first choice courses with alternatives available

The Chairman convened the Open Session of the Council.

APPROVAL OF MINUTES

The minutes of the January 11 Council meeting were approved as submitted. Excused absences were approved for Drs. Hayes and Swan.

PROGRAM IN PSYCHOBIOLOGY

Dr. Knoblock informed the Council that he had called Dean Wilson's attention to the fact that the existing Program in Psychobiology had never been approved by the Senate. It was *moved* by Dr. Brass, seconded by Dr. Allegro, to inform the College of Arts and Sciences that, since the Senate has not approved this major, it is not a valid major. If the College wishes approval of this program, it will be required to meet the guidelines for new programs. The Senate Council recommends: 1) that no further majors be given until this program has proper approval; and 2) that students already in the program should be transferred to programs in either biology or psychology. The *motion carried* with one opposed and one abstention. It was *moved*, and seconded, to recommend temporary approval be given through May 31, 1988 to the psychobiology major for the purpose of protecting those students currently enrolled in the program and expecting to graduate in May or any student who will have received a degree by May 31. The *motion carried unanimously*.

BENEFITS FOR PART-TIME INSTRUCTORS

The Chairman reported that over seven hundred people are employed by the University as part-time staff and faculty. These individuals are not covered by any kind of medical insurance fringe benefit. He stated that a formula is being developed to include those who are teaching the equivalent of a regular faculty member.

RESEARCH AND TRAINING ASSOCIATES

The Chairman announced that this matter still persists in the affected school. He will continue to monitor the problem.

SUMMER SCHOOL CONTRACTS

Dr. Knoblock informed the Council that it has not been decided whether or not to make summer school contracts firm.

UNIVERSITY OF
Miami

MEMO

January 27, 1988

TO: Professor John Knoblock,
Chairperson Faculty Senate

FROM: Dean David Wilson,
College of Arts & Sciences *David*

Via: Charles Mallery, *CHM*
Assistant Dean

Subject: Psychobiology Major

The College of Arts & Sciences formally petitions the Faculty Senate for approval of a major in Psychobiology leading to the Bachelor of Science degree offered jointly through the Departments of Psychology and Biology.

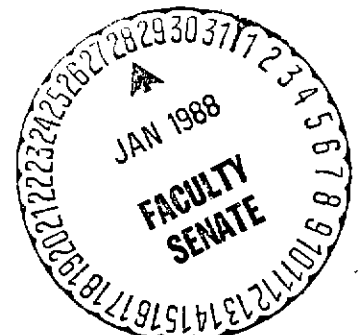
During the Fall semester of 1983, after debate and approval by the School Council, the Faculty of the College of Arts & Sciences at its general faculty meeting of November 22, 1983 passed unanimously the major in Psychobiology. No further approval than the Faculty of the College was sought as it was believed that was the only approval necessary.

Attached is a description of the Psychobiology major as approved by the Faculty of Arts & Sciences.

Thank you.

CHM/jk

College of Arts & Sciences
P.O. Box 248004
Coral Gables, Florida 33124
(305) 284-4333



CURRICULUM VITAE

NAME: William H. Evoy

TITLE: Professor, Biology

DATE AND PLACE OF BIRTH: July 1, 1938; Philadelphia, Pennsylvania
(U.S. Citizen)

EDUCATION: Bowdoin College, Brunswick, Maine 1956-58
Reed College, Portland, Oregon B.A. 1958-60
University of Oregon, Eugene, Oregon Ph.D. 1960-64

PROFESSIONAL EXPERIENCE: Summer- 1959, 1960 Research Assistant, U.S. Fish & Wildlife Service, Biological Laboratory, Woods Hole, Mass.
1960-61 Teaching Assistant, University of Oregon
1961-64 UPHS Trainee, Comparative Physiology, University of Oregon

Summer- 1964 Grass Foundation Fellow, Marine Biological Laboratory, Woods Hole, Mass.
1964-66 Research Associate, Dept. Biological Sciences, Stanford University (with Prof. Donald Kennedy)
1966-69 Assistant Professor of Biology, University of Miami, Coral Gables, Florida
1969-76 Associate Professor of Biology, University of Miami, Coral Gables, Florida
2/73-6/73 Visiting Investigator, Laboratory for Neurobiology, University of Puerto Rico
1976- Present Professor of Biology, University of Miami, Coral Gables, Florida
1972-81 Director, Laboratory for Quantitative Biology
4/83-8/83 Visiting Investigator, Department of Zoology, University of Bristol, England
5/84-6/84 Benjamin Meaker Visiting Professor, University of Bristol, England

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

AAAS (Fellow)
Society of General Physiologists
Crustacean Society
Division of Comparative Physiology, A.S.Z
Society for Experimental Biology
Society for Neuroscience
International Society for Neuroethology

MAJOR PUBLICATIONS:

1. Kennedy, Donald and Evoy, William H. 1966. The distribution of pre- and postsynaptic inhibition at crustacean neuromuscular junctions. *J. Gen. Physiol.* 49, 457-468.

MAJOR PUBLICATIONS: (cont'd)

2. Kennedy, D., Evoy, W.H. and Hanawalt, J.T. 1966. Release of coordinated behavior in crayfish by single central neurons. *Science* 154, 917-919.
3. Evoy, W.H. 1967. Central commands for postural control in the crayfish abdomen. In *Invertebrate Nervous Systems*, C.A.G. Wiersma, ed. pp. 213-17.
4. Evoy, W.H. and Donald Kennedy. 1967. The central nervous organization underlying control of antagonistic muscles in the crayfish. I. Types of command fibers. *J. Exp. Zool.* 165, 223-238.
5. Kennedy, D., Evoy, W.H., Dane, B. and Hanawalt, J.T. 1967. The central nervous organization underlying control of antagonistic muscles in the crayfish. II. Coding of position by command fibers. *J. Exp. Zool.* 165, 238-248.
6. Fields, H.L., Evoy, W.H. and Kennedy, D. 1967. Reflex role played by efferent control of an invertebrate stretch receptor. *J. Neurophysiol.* 30, 859-874.
7. Evoy, W.H., Kennedy, D. and Wilson, D.M. 1967. Discharge patterns of neurons supplying tonic abdominal muscles in the crayfish. *J. Exp. Biol.* 46, 393-412.
8. Kennedy, D., Evoy, W.H. and Fields, H.L. 1967. The unit basis of some crustacean reflexes. *Symp. Soc. Exp. Biol.* 20, 75-102.
9. Evoy, W.H. and Cohen, M.J. 1969. Sensory and motor interaction in the locomotor reflexes of crabs. *J. Exp. Biol.* 51, 151-169.
10. Evoy, W.H. and Cohen, M.J. 1971. Central and peripheral control of arthropod movements. (Review Article) *Advances in Comp. Physiol. and Biochem.* Vol. 4, 225-266.
11. Evoy, W.H. and Jones, B.P. 1971. Motor patterns of male euglossine bees evoked by floral fragrances. *Animal Behavior* 19, 579-584.
12. Spirito, C.P., Evoy, W.H. and Barnes, W.J.P. 1972. Nervous control of walking in the crab, *Cardisoma guanhumi*. I. Characteristics of resistance reflexes. *Z. vergl. Physiol.* 76, 1-15.
13. Barnes, W.J.P., Evoy, W.H. and Spirito, C.P. 1972. Nervous control of walking in the crab, *Cardisoma guanhumi*. II. Role of resistance reflexes in walking. *Z. vergl. Physiol.* 76, 16-31.
14. Evoy, W.H. and Beranek, R. 1972. Pharmacological localization of excitatory and inhibitory synaptic regions in crayfish slow abdominal flexor muscle fibres. *Comp. Gen. Pharmacol.* 3, 178-186.
15. Spirito, C.P., Evoy, W.H. and Fournier, C.R. 1973. Considerations of proprioceptive and neuromuscular integration in crustacean locomotion. *Amer. Zool.* 13, 427-434.
16. Evoy, W.H. and C.R. Fournier. 1973. Nervous control of walking in the crab, *Cardisoma guanhumi*. III. Proprioceptive influences on intra- and intersegmental coordination. *J. Comp. Physiol.* 83, 303-318.
17. Fournier, C.R. and Evoy, W.H. 1973. Nervous control of walking in the crab, *Cardisoma guanhumi*. IV. Effects of myochordotonal organ ablation. *J. Comp. Physiol.* 83, 319-329.
18. Evoy, W.H. and Fournier, C.R. 1973. Crustacean walking. In *Control of Posture and Locomotion*. Stein, R.B., Pearson, K.G., Smith, R.S. and Redford, J.B. (eds), pp. 477-493 New York, Plenum Publ. Co.
19. Boroff, D.A., Del Castillo, J., Evoy, W.H. and Steinhardt, R. 1974. Observations on the action of Type A botulinum toxin on frog muscular junctions. *J. Physiol.* 240, 227-253.

MAJOR PUBLICATIONS: (cont'd)

20. Boroff, D.A., Del Castillo, J., Evoy, W.H. and Steinhardt, R. 1974. Two different populations of synaptic vesicles in motor nerve endings blocked by type A botulinum toxin. In Actualities Neurophysiologiques, pp. 193-199, Paris, Masson et Cie.
21. Evoy, W.H. 1976. Modulation of Proprioceptive information in Crustacea, pp. 617-645. In Neural Control of Locomotion. Herman, R.M.; Grillner, S., Stein, P. and Stuart, D. (eds). Plenum Press, N.Y.
22. Evoy, W.H. 1977. Crustacean motor neurons. pp. 67-86 in Identified Neurons and Behavior of Arthropods. G. Hoyle (ed.) Plenum Press, N.Y.
23. Evoy, W.H. 1978. Functional description of neurons that influence behavior. Behav. Brain Sci. 1, 19-20.
24. Smith, D.S., Evoy, W.H. and Cayer, M.L. (1979). Freeze-fracture studies on the plasma membrane of crayfish skeletal muscle fibers. Biologie Cellulaire 34, 17-22.
25. Evoy, W.H. and Ayers, J.L. 1982. Locomotion and control of limb movements. Ch. Vol. 4 in The Biology of Crustacea, H.L. Atwood and D. Sandeman (eds) Academic Press, NY pp.61-105.(Review)
26. Roberts, A., Dale, N., Evoy, W.H. and Soffe, S.R. 1985. Synaptic potentials in motoneurons during fictive swimming in spinal Xenopus embryos. J. Neurophysiol 54, 1-10.
27. Evoy, W.H. 1986. Is anything fixed in an action pattern? The Behavioral and Brain Sciences. 9, 603-604 + references

ABSTRACTS:

1. Evoy, William H. and Cohen, M.J. 1963. Proprioceptive reflexes in the crab leg. Am. Zool. 3, 155.
2. Fields, Howard L., William H. and Kennedy, Donald, 1965. Phasic/tonic differentiation of afferent and efferent elements in crustacean reflexes. Fed. Proc. 24, 647.
3. Evoy, William H. and Kennedy, Donald. 1965. Central control of tonic muscles in the crayfish abdomen. Am. Zool. 5, 107.
4. Evoy, William H., Kennedy, Donald and Dane, Benjamin. 1966. Central nervous control of posture in the crayfish abdomen. Am. Zool. 6, 93.
5. Evoy, W.H., Barnes, W.J.P. and Spirito, C.P. 1970. Interactions between central commands and reflexes in crab walking legs. Am. Zool. 10, 500.
6. Evoy, W.H. and Fournier, C.R. 1972. Sensory alteration of walking in land crabs. Soc. for Neuroscience 2nd Annual Meeting.
7. Eastman, L.F., Evoy, W.H. and Davidoff, R.A. 1975. Effects of penicillin on gamma-aminobutyric acid-induced membrane conductance at the crayfish neuromuscular junction. Neuroscience Abstracts 1, 378.
8. Marrelli, J.D. and Evoy, W.H. 1976. Load compensation through CNS control of proprioceptive interaction with centrally generated activity. Neuroscience Abstracts 2, 524.
9. Marrelli, J.D. and Evoy, W.H. 1977. Activation de motoneurones synergistes chez l'ecrevisse: Control differentiel du "gain" par un seul interneurone. J. Physiol. (Paris).
10. Marrelli, J.D. and Evoy, W.H. 1977. Reflex reversal in the crayfish: Central modulation of reflex modality. Abstract, XXVII Int'l Congr. Physiological Sciences, Paris.

ABSTRACTS: (cont'd)

11. Evoy, W.H. and Crabtree, R.L. 1978. Synaptic integration by crayfish walking leg motor neurons. *Neurosci. Abstr.* 4, 192.
12. Crabtree, R.L. and Evoy, W.H. 1978. The crayfish thoracic phasic flexors: differences in homologous motoneurons. *Neurosci. Abstr.* 4, 191.
13. Crabtree, R.L. and Evoy, W.H. 1980. Proprioceptive interactions with a functionally diverse crustacean motor system. *Neurosci. Abstr.* 6, 371.
14. Evoy, W.H., Roberts, A., Soffe, S.R. and Dale, N. 1984. Synaptic components of the central pattern generator for swimming in an amphibian spinal cord. *Neurosci. Abstr.* 10, 658.

PUBLICATIONS RESULTING FROM THE DIRECTED WORK OF GRADUATE STUDENTS:

1. Bowerman, R.F. (1972). A muscle receptor in the scorpion post abdomen. I. The sensory system. *J. Comp. Physiol.* 81, 133-146.
2. Bowerman, R.F. 1977. A muscle receptor organ in the scorpion post abdomen. II. Reflexes evoked by MRO stretch and release. *J. Comp. Physiol.* 81, 147-157.
3. Fountain, R.L. 1973. Motor control of accessory muscles in the tendon receptor organ in *Limulus polyphemus*. *Comp. Biochem. Physiol.* 44A, 511-517.
4. Silvey, G.E. 1973. Motor control of tail-spine rotation of the horseshoe crab, *Limulus polyphemus*. *J. Exp. Biol.* 58, 99-625.
5. Moffett, S.B. 1975. Motor patterns and structural interactions of basi-ischiopodite levator muscles in routine limb elevation and production of autotomy in the land crab, *Cardisoma guanhumi*. *J. Comp. Physiol.* 96, 285-305.
6. Grote, J.R. 1981. The effect of load on locomotion in crayfish. *J. Exp. Biol.* 92, 277-288.

REVIEWS (Invited)

1983 Locomotion and Energetics of Arthropods (C.F. Herreid & C.R. Fourtner eds.)
American Scientist.

INVITED SEMINARS AND SYMPOSIA (1980-1987):

- "Sensory Feedback in Crustacean Walking", Dept. of Biology, University of South Florida, Tampa, Jan. 9, 1981.
- "Multi-functional Systems for Crustacean Limb Movement Control" Symposium on "Elements of Behavior: Systems of Identified Neurons", in honor of Donald Kennedy. Stanford University, August 16-18, 1981.
- Seminars on Crustacean Motor Control and Muscle Properties. University of Bristol [England], Dept. of Zoology and Dept. of Physiology, University of Glasgow. 1983.
- "Central Pattern Generation in Tadpole Swimming", Georgia State University, October, 1983.
- "Central Pattern Generation in Tadpole Swimming", Dept. of Biology, Univ. of Miami, Spring 1984
- "Neuronal Strategies for Animal Locomotion", Dept. of Biological Sciences, Florida International University, November 1986

GRANTS, RESEARCH AND TRAINING:

NSF GB 8447	1966-1969
NSF GB 5599	1969-1970
NASA NGL 10-007-010 Sub 2	1971-1972
NSF GB 30605	1970-1976
NIH HD00187 - (Training Grant) P.I.	1972-1973
NSF BNS 21721	1977-1980
Proposal to NINCDS approved but not funded	1979
NINCDS Nat'l. Res. Serv. Award (R. Crabtree) Sponsor	1979-1981
NIMH RO1MH37184 Co-P.I. with B.L. Partridge	1982-1983
NIH Fogarty Senior International Fellowship FIC TW00785-01	1983
NSF US-UK Cooperative Research Program	Withdrawn upon award of above grant
NIH Sub11 RR 07022-16 (Univ. of Miami) Benjamin Meaker Visiting Professorship, University of Bristol, England	1983-1985 1984

MASTERS AND DOCTORAL WORK SUPERVISED:

Brooks P. Jones	(M.S., Psychology)	1970
R. L. Fountain	(M.S., Biology)	1970
R.F. Bowerman	(Ph.D., Biology)	1971
C.J. Moody	(Ph.D., Biology-CMB)	1972
G.E. Silvey	(Ph.D., Biology)	1972
R.L. Fountain	(Ph.D., Biology)	1972
J.R. Grote	(M.S., Biology)	1972
S.B. Moffett	(Ph.D., Biology)	1973
L.F. Eastman	(Ph.D., Physiology & Biophysics) Co-Chair with K.L. Magleby	1975
J.R. Grote	(Ph.D., Biology)	1976
W.P. Hofmann	(M.S., Biology)	1976
R. Andreu	(M.S., Biology)	1977
J.C. Hackman	(Ph.D., Biology) (Co-Chair with R.A. Davidoff)	1979
T.L. Vandergon	(M.S., Biology)	1980-replacement for B.N. Burkett
F. Mazzotti	(M.S., Biology)	1981-replacement for A.T. Smith
P.B. Larson, M.D.	(Ph.D. student-on leave)	current
Brigitte Rose	(M.S. student)	completed Fall, 1987

POSTDOCTORALS:

L.B. Kahan, Ph.D., Stanford University	1967-1968
C.P. Spirito, Ph.D., Univ. of Connecticut	1969-1970
C.R. Fourtner, Ph.D., Michigan State Univ.	1971-1973
R.L. Crabtree, Ph.D. Clark Univ.	1977-1981

MAJOR RESEARCH INTERESTS:

Neurophysiological mechanisms that underlie behavior.
Neuronal control of locomotion and posture.
The role of proprioceptors in control of locomotion.
Field and laboratory studies of the sensory basis of insect behavior.
Pharmacology and physiology of nerve-muscle junctions.

To: Arthur W. Brown, Dean of Arts & Sciences

From: Clyde Hendrick, Chairman of Psychology
Jay M. Savage, Chairman of Biology

Subject: Proposed Psychobiology Major

Date: July 15, 1983

We are pleased to present you with a proposal for a new major, Psychobiology, to be offered jointly by the Departments of Biology and Psychology. The proposal has gone through several iterations by us and has been approved by the faculties of the two departments. We present it to you for consideration by the College Council and other appropriate bodies.

This joint major is intended for the elite student. It is aimed at students primarily at the honors level of excellence. Initial enrollments will probably be small. But we expect that if Dr. Ash's efforts to expand honors enrollments are successful, the program may increase in size substantially in the years ahead.

cc: James L. Ash, Jr., Director of Honors & Privileged Studies.

CH/bmm

PROGRAM IN PSYCHOBIOLOGY:

A major in psychobiology leading to the Bachelor of Science degree is offered jointly through the Departments of Psychology and Biology. This rigorous major is designed for students preparing for health-related professional schools or graduate study in such fields as biology, neurobiology, behavioral ecology, ethology, psychology, psychobiology, neurosciences, and behavioral medicine. The program requires a minimum of 130 credits. There is no minor requirement. Admission is open to freshmen with SAT scores of 1200 or above and GPA of 3.3 or higher. Advanced students may be admitted on an individual basis after completion of 24 credit hours at the University of Miami. Details are available from either the Program Director in Biology or Psychology.

Distributive requirements are the same as for other B.S. degrees with the following exceptions:

1. three credits of the History/Social Sciences requirement must include Psychology 101.
2. Mathematics must include eight credits of 111-112 or 131-132.
3. Physics must include 10 credits of 101 with 06 and 102 with 108, or 211 with 222 and 212 with 236.
4. Chemistry must include 16 credits: 111, 112, 201, and 202 with 203.

The major core requirements for the psychobiology major include BIL 111, BIL 112, BIL 211, BIL 311, PSY 102, PSY 204, PSY 402 and PSY 403. In addition, three additional courses will be selected from Biology and three courses from Psychology. Normally, students will take BIL 319 and two courses selected from BIL 202, BIL 301, BIL 310, BIL 324, BIL 533, BIL 540, BIL 560. The three courses from Psychology will be selected from PSY 316, PSY 318, PSY 332, PSY 345, PSY 350, PSY 352, PSY 405, PSY 420, PSY 430, PSY 444. Exceptions may be made by petition to the appropriate Director. Special note: PSY 316/318 is a nonnegotiable prerequisite for PSY 403.

CURRICULUM VITAE

Thomas G. Nolen
Department of Biology
University of Miami
P.O. Box 249118
Coral Gables, FL 33124
(305) 284-6206

EDUCATION

- 1984-87 Yale University, Postdoctoral Research Fellow (NIH NRSA)
- 1978-84 Cornell University, Ph.D.
- 1976-78 University of California, Santa Barbara, M.A.
- 1972-76 University of California, Santa Barbara, B.A.

EMPLOYMENT

- 1987- University of Miami, Assistant Professor, Department of Biology

PROFESSIONAL EXPERIENCE

Research Activities

- 1978-84 Anatomical, electrophysiological and behavioral work on the neural basis of phonotaxis in flying crickets. Cornell University
- 1984-87 Post-doctoral work on the development of the cellular and molecular mechanisms underlying learning in juvenile Aplysia californica. Yale University and the Marine Biological Laboratory, Woods Hole, Massachusetts
- 1987- Neurophysiological, pharmacological and anatomical approaches to the development of behavior, and of behavioral plasticity. University of Miami

Peer Reviewer

- The National Science Foundation
- Brain Research
- The Journal of Experimental Biology

HONORS

- 1974-75 NSF ('74) and UC Regent's ('75) Undergraduate Research Fellowships, UCSB [Competitive: Summer stipend and tuition]
- 1976 On graduation from UCSB: Graduation with Highest Honors (4.0 GPA), selected as the Outstanding Graduating Senior in Biology. Dean's List Scholar, 4 years. California State Scholar, 4 years.
- 1976 University of California President's Graduate Research Fellow, UCSB [Competitive fellowship: Stipend, tuition]
- 1978-80, NIH Predoctoral Trainee, Cellular and Molecular Neurobiology Training Grant, Cornell '81-83 University [Stipend, tuition, supplemental research support]
- 1980-81 NIMH Predoctoral Trainee, "Mechanisms of frequency analysis in the cricket." Integrative Neurobiology Training Grant, Cornell University [Competitive fellowship/grant: Stipend, tuition and \$800 project support grant]
- 1985-86 Visiting Fellow, Yale College, Yale University.
- 1985 Finalist, Donald B. Lindsley Prize in Behavioral Neuroscience
- 1986 Grass Foundation Summer Research Fellow, the MEL, Woods Hole, Massachusetts [Competitive fellowship: Summer stipend and research support grant]
- 1984-87 NIH Postdoctoral Fellowship, "Development of learning and memory in Aplysia." Yale University [Competitive fellowship: Stipend + \$3000/yr supplemental research support]
- 1988 University of Miami Summer Awards in the Natural Sciences and Engineering. "Development of sensitization in Aplysia californica." University of Miami. [Competitive: \$5000 summer research stipend]
- 1988 S.W. Kuffler Summer Research Fellowship, the MEL, Woods Hole, Massachusetts

PUBLICATIONS

Papers in Reviewed Journals

- Camhi, J.M. and Nolen, T.G. (1981). Properties of the escape system of cockroaches during walking. *J. Comp. Physiol. A.* 142:339-346.
- Nolen, T.G. and Hoy, R.R. (1984). Initiation of behavior by single neurons: The role of behavioral context. *Science.* 226:992-994.
- Hoy, R.R., Nolen, T.G., Casaday, G.B. (1985). Dendritic sprouting and new synaptogenesis in an identified interneuron following auditory deprivation in a cricket. *Proc. Natl. Acad. Sci. (USA).* 82:7772-7776.
- Nolen, T.G. and Hoy, R.R. (1986a). Phonotaxis in flying crickets: II. Physiological mechanisms of two-tone suppression of the high frequency avoidance steering behavior by the calling song. *J. Comp. Physiol. A.* 159: 441-456.
- Nolen, T.G. and Hoy, R.R. (1986b). Phonotaxis in flying crickets: I. Attraction to the calling song and avoidance of bat-like ultrasound are discrete behaviors. *J. Comp. Physiol. A.* 159: 423-440.
- Nolen, T.G., Marcus, E.A. and Carew, T.J. (1987). Development of learning and memory in *Aplysia*. III. Central neuronal correlates. *J. Neurosci.* 7: 144-153.
- Nolen, T.G. and Hoy, R.R. (1987). Postsynaptic inhibition mediates high-frequency selectivity in the cricket *Teleogryllus oceanicus*: Implications for flight phonotaxis behavior. *J. Neurosci.* 7: 2081-2096.
- Nolen, T.G. and Carew, T.J. (1988). The cellular analog of sensitization in *Aplysia* emerges at the same time in development as behavioral sensitization. *J. Neurosci.* 8: 212-222.
- Marcus, E.A., Nolen, T.G., Rankin, C.H., and Carew, T.J. (1988). Behavioral dissociation of dishabituation, sensitization and inhibition in the siphon withdrawal reflex of adult *Aplysia*. *Science*, in press.

Reviews and Book Chapters

- Nolen, T.G., Rankin, C.H., Marcus, E.A., Stopfer, M. and Carew, T.J. (1986). An ontogenetic analysis of learning and memory in *Aplysia*. In: *The Biology of Change in Otolaryngology.* (Ruben, R.J., van de Water, T.R. and Rubel, E.W., eds). Excerpta Medica, Amsterdam, New York. pp 255-271.
- Hoy, R.R., Nolen, T.G. (1987). The role of context in decision-making by an identified interneuron in the cricket. In: *Higher Brain Functions: Recent Explorations of the Brain's Emergent Properties.* (Wise, S.P., ed). John Wiley and Sons, New York. 133-155.
- Marcus, E.A., Nolen, T.G., Rankin, C.H., Stopfer, M. and Carew, T.J. (1988). Development of behavior and learning in *Aplysia*. In: *Invertebrate Neuroethology.* Experientia. (Camhi, J.M., ed). Springer Verlag. (In Press).

Ph.D. Thesis

- Nolen, T.G. (1984) The neural basis of ultrasound avoidance steering of flying crickets, 286pp. Cornell University.

Manuscripts in Preparation

- Nolen, T.G. and Carew, T.J. (1988). The developmental emergence of serotonin immunoreactive neurons in the CNS of juvenile *Aplysia*: Implications for the emergence of behavioral sensitization. For submission to *J. Neurobiol.*

Published Abstracts

- Nolen, T.G., Marcus, E. and Carew, T.J. (1985). Development of learning and memory in *Aplysia*: III. Central neuronal correlates. *Soc. Neurosci. Abstr.* 11:643.
- Carew, T.J., Marcus, E.A., Nolen, T.G. and Rankin, C.H. (1986). Contribution of central neuronal circuits to reflex gill and siphon withdrawal and simple forms of learning in developing *Aplysia*. *Soc. Neurosci. Abstr.* 12: 398.
- Nolen, T.G., Mindell, J.A. and Carew, T.J. (1986). Development of neurotransmitters implicated in learning in *Aplysia*. *Soc. Neurosci. Abstr.* 12: 399.
- Marcus, E.A., Nolen, T.G., Rankin, C.H., and Carew, T.J. (1987). Behavioral dissociation of dishabituation, sensitization and inhibition in the siphon withdrawal reflex of adult *Aplysia*. *Soc. Neurosci. Abstr.* 13: 816.
- Nolen, T.G. and Carew, T.J. (1987). Analysis of non-decrementing EPSPs prior to the emergence of sensitization reveals an inhibitory process in *Aplysia*. *Soc. Neurosci. Abstr.* 13: 816.

CURRICULUM VITAE

Richard R. Tokarz
Assistant Professor of Biology (1983-Present)
University of Miami
Coral Gables, Florida

EDUCATION

Postdoctoral Fellow in Biology (1978-1981)
Museum of Comparative Zoology
Harvard University
Cambridge, Massachusetts

National Institutes of Health Postdoctoral Trainee (1977-1978)
Biochemistry, endocrinology, and reproductive biology
Professor J. David Puett preceptor
Vanderbilt University
Nashville, Tennessee

Graduate student (1973-1968)
Ph.D., 1977
Professor Richard E. Jones Thesis advisor
Department of Biology
The University of Colorado
Boulder, Colorado

Graduate and undergraduate student (1962-1968)
M.S., 1968; B.S., 1964
Department of Biology
The University of New Mexico
Albuquerque, New Mexico

MILITARY

United States Air Force (1969-1972)

PREVIOUS ACADEMIC POSITIONS

Assistant Professor of Biology (1981-1982)
Ramapo State College of New Jersey
Mahwah, New Jersey

RESEARCH EXPERIENCE

Harvard University (1978-1981)
David Crews's laboratory
Hormonal regulation of sexual behavior in nonmammalian vertebrates:
correlated plasma steroid levels and receptor numbers with behavior;
effects of peptides on behavior.

Vanderbilt University (1977-1978)

J. David Puett preceptor

Steroid control of messenger RNA levels: measured mRNA in chick oviduct following steroid treatment using RNA and cDNA hybridization techniques; learned radioimmunoassay and hormone receptor assays.

The University of Colorado (1975-1976)

Research assistant to Richard E. Jones

Hormonal control of ovarian function in reptiles: used autoradiography methods to study effects of hormones on ovarian function; learned electron-microscopy and histological techniques.

TEACHING

Fundamentals of Biology, Bil 111 and 112
physiology and animal behavior sections

Endocrinology, Bil 306

new course that I developed
average enrollment around 90 students

Animal Physiology, Bil 319

course coordinator
present about a third of lectures
average enrollment around 65 students

Student readings and research projects, Bil 411 and 412
supervised six students

Animal Behavior Seminar, Bil 688

FIELDS OF INTEREST

Animal behavior

Endocrinology

Reproductive biology

Vertebrate physiology

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science

American Society of Zoologists

Animal Behavior Society

Endocrine Society

Sigma Xi

INVITED SEMINARS AND SYMPOSIA

Invited participant for the 10th International Symposium on Comparative
Endocrinology, 1985, Copper Mountain, Colorado

University of Miami School of Medicine, Reproductive sciences and endocrinology
laboratories, 1984, seminar

Stockton State College, 1980, seminar

The University of Tennessee, 1980, seminar

Massachusetts Institute of Technology, Symposium on Hormonal regulation of
sexual behavior, 1980

Vanderbilt University, 1978, seminar

SCIENTIFIC MEETINGS

American Society of Zoologists Annual meeting, 1986, Nashville, TN
 American Society of Zoologists Annual meeting, 1985, Baltimore, MD
 Combined meetings of the Society for the study of Amphibians and Reptiles,
 the Herpetologist's League, and the American Society of Ichthyologists
 and Herpetologists, 1984, Norman, OK
 American Society of Zoologists Annual meeting, 1983, Philadelphia, PA
 Northeast Society of Animal Behavior, 1982, Boston, MA
 East coast Conference of Reproductive Behavior (1980 - 1982)
 American Society of Zoologists Annual meeting, 1980, Seattle, WA
 American Society of Zoologists Annual meeting, 1979, Tampa, FL

THESES COMMITTEES

Thesis committee member for: John Beck Jr., Maureen Donnelly, Craig Guyer,
 March Hayes, Kevin Johnson, and Nancy Glassman (Marine School)

TRAINING PROGRAMS

Affiliate preceptor for NIH-sponsored training program in Cellular and
 Molecular Reproductive Biology; University of Miami Medical School;
 Program Director: J. David Puett
 Hormone Action and Molecular Endocrinology Workshop, March 1980. Sponsored
 by the Endocrine Society, Baylor College of Medicine.

GRANTS

NIH Biomedical Research Support Grant Award, 1983, \$5,000. Project
 title: Antigonadal activity of gonadotropin-releasing hormone analogs
 in reptiles.
 NIH Biomedical Research Support Grant Award, 1984, \$2,750, Project
 title: Neural Androgen Action in Reptiles.
 Junior Investigators Research Grant, Innovative Research of America, 1985,
 \$1,000
 National Science Foundation proposal submitted 1987, requested amount
 \$70,591. (Not funded June 9, 1987). Title of proposal: Androgen
 control of male territorial behavior in the lizard Anolis sagrei.
 New proposal to the National Science Foundation in preparation.
 Deadline for submission Jan. 15, 1988. Title of proposal: Alternation
 of hemipenis use in lizards: mechanism and adaptive significance.

GRANT AND MANUSCRIPT REVIEWER

Copeia
 Herpetological Review
 Journal of Endocrinology
 National Science Foundation

PUBLICATIONS

Primary author of articles in the following Journals: Animal Behaviour,

Brain Research, Endocrinology, General and Comparative Endocrinology, Hormones and Behavior, and Journal of Biological Chemistry

Journal articles:

- Tokarz, R. R. (1987). Effects of corticosterone treatment on male aggressive behavior in a lizard (Anolis sagrei). Hormones and Behavior 21, 358-370.
- Tokarz, R. R. (1987). Effects of the antiandrogens cyproterone acetate and flutamide on male reproductive behavior in a lizard (Anolis sagrei). Hormones and Behavior 21, 1-16.
- Tokarz, R. R., and Beck, J. W., Jr. (1987). Behaviour of the suspected lizard competitors Anolis sagrei and Anolis carolinensis: an experimental test for behavioural interference. Animal Behaviour 35, 722-734.
- Tokarz, R. R. (1986). Hormonal regulation of male reproductive behavior in the lizard Anolis sagrei: a test of the aromatization hypothesis. Hormones and Behavior 20, 364-377.
- Tokarz, R. R. (1985). Body size as a factor determining dominance in staged agonistic encounters between male brown anoles (Anolis sagrei). Animal Behaviour 33, 746-753.
- Garstka, W. R., Tokarz, R. R., Diamond, M., Halpert, A., and Crews, D. (1985). Behavioral and physiological control of yolk synthesis and deposition in the red-sided garter snake (Thamnophis sirtalis parietalis). Hormones and Behavior 19, 137-153.
- Crews, D., Camazine, B., Diamond, M., Mason, R., Tokarz, R. R., and Garstka, W. R. (1984). Hormonal independence of courtship behavior in the male garter snake. Hormones and Behavior 18, 29-41.
- Jones, R. E., Guillette, L. J., Jr., Summers, C. H., Tokarz, R. R., and Crews, D. (1983). Ovarian follicular and luteal condition, and related steroid hormone levels, during the estrous cycle of the lizard, Anolis carolinensis. Journal of Experimental Zoology 227, 145-154.
- Tokarz, R. R., and Crews, D. (1982). Failure of a variety of antiestrogens to mimic estrogen action in the induction of sexual receptivity in a female lizard. Hormones and Behavior 16, 364-369.
- Moore, F. L., Zoeller, R. T., Spielvogel, S. P., Baum, M. J., Han, S-J., Crews, D., and Tokarz, R. R. (1982). Arginine vasotocin enhances influx of testosterone in the newt brain. Comparative Biochemistry and Physiology 70, 115-117.
- Tokarz, R. R., Crews, D., and McEwen, B. S. (1981). Estrogen-sensitive progestin binding sites in the brain of the lizard, Anolis carolinensis. Brain Research 220, 95-105.

- Tokarz, R. R., and Crews, D. (1981). Effects of prostaglandins on sexual receptivity in the female lizard, Anolis carolinensis. Endocrinology 109, 451-457.
- Camazine, B., Garstka, W., Tokarz, R. R., and Crews, D. (1980). The effects of castration and hormone replacement therapy in garter snakes (Thamnophis sirtalis parietalis). Hormones and Behavior 14, 33-45.
- Tokarz, R. R., and Crews, D. (1980). Induction of sexual receptivity in the female lizard, Anolis carolinensis: effects of estrogen and the anti-estrogen CI-628. Hormones and Behavior 14, 33-45.
- Alderete, M. R., Tokarz, R. R., and Crews, D. (1980). Luteinizing hormone-releasing hormone (LHRH) and thyrotropin releasing hormone (TRH) induction of female sexual receptivity in the lizard, Anolis carolinensis. Neuroendocrinology 30, 200-205.
- Tokarz, R. R., Harrison, R. W., and Seaver, S. S. (1979). The mechanism of androgen and estrogen synergism in the chick oviduct: Estrogen-modulated changes in cytoplasmic androgen receptor concentrations. Journal of Biological Chemistry 254, 9178-9184.
- Tokarz, R. R., and Jones, R. E. (1979). A study of egg-related maternal behavior in Anolis carolinensis (Reptilia, Lacertilia, Iguanidae). Journal of Herpetology 13, 283-288.
- Tokarz, R. R. (1978). An autoradiographic study of the effects of mammalian gonadotropin (follicle-stimulating hormone and luteinizing hormone) and estradiol on tritiated thymidine labeling of surface epithelial cells, prefollicular cells, and oogonia in the ovary of the lizard, Anolis carolinensis. General and Comparative Endocrinology 31, 17-28.
- Tokarz, R. R. (1977). An autoradiographic study of the effects of FSH and estradiol on early ovarian follicular maturation in adult Anolis carolinensis. General and Comparative Endocrinology 31, 157-160.
- Jones, R. E., Fitzgerald, K. T., and Tokarz, R. R. (1977). Endocrine control of clutch size in reptiles. VII. Compensatory ovarian hypertrophy following unilateral ovariectomy in Sceloporus occidentalis. General and Comparative Endocrinology 31, 157-160.
- Jones, R. E., Tokarz, R. R., LaGree, F. T., and Fitzgerald, K. T. (1976). Endocrine control of clutch size in reptiles. VI. Patterns of FSH-induced ovarian stimulation in adult Anolis carolinensis. General and Comparative Endocrinology 30, 101-116.
- Jones, R. E., Tokarz, R. R., Roth, J. J., Platt, J. E., and Collins, A. C. (1976). Tissue histamine levels in the lizard Anolis carolinensis. Copeia 1976, 397-398.
- Jones, R. E., Tokarz, R. R., and LaGree, F. T. (1975). Endocrine control of clutch size in reptiles. V. FSH-induced follicular formation and growth in immature ovaries of Anolis carolinensis. General and Comparative Endocrinology 26, 354-367.

Jones, R. E., Tokarz, R. R., Roth, J. J., Platt, J. E., and Collins, A. C. (1975). Mast cell histamine and ovarian follicular growth in the lizard Anolis carolinensis. Journal of Experimental Zoology 193, 343-352.

Book chapters:

Crews, D., Gustafson, J. E., and Tokarz, R. R. (1983). Psychobiology of parthenogenesis. In: "Lizard Ecology" (R. Huey, T. Schoener, and F. Pianka, eds.), pp. 205-232. Harvard University Press, Cambridge, MA.

Tokarz, R. R. (1978). Oogonial proliferation, oogenesis, and folliculogenesis in nonmammalian vertebrates. In: "The Vertebrate Ovary -- Comparative Biology and Evolution" (R. E. Jones, ed.), pp. 145-179. Plenum Press, New York, NY.

Abstracts:

Tokarz, R. R. (1986). Effects of corticosterone on male agonistic behavior in a lizard. American Zoologist 26, 635.

Tokarz, R. R. (1985). Reproductive behavior in male lizards treated with the antiandrogens cyproterone acetate and flutamide. American Zoologist 25, 412.

Tokarz, R. R., and Beck, J. W., Jr. (1985). Behavioral responses during staged encounters between the suspected lizard competitors Anolis sagrei and Anolis carolinensis. American Zoologists 25, 26.

Tokarz, R. R. (1983). Effects of gonadotropin-releasing hormone antagonists on ovarian recrudescence in the lizard, Anolis carolinensis. American Zoologist 23, 169.

Tokarz, R. R., Crews, D., and McEwen, B. S. (1980). Identification of progestin binding sites in the brain and oviduct of the lizard Anolis carolinensis. American Zoologist 20, 550.

Tokarz, R. R., and Crews, D. (1979). Temporal pattern of estrogen-induction of female sexual receptivity in the lizard, Anolis carolinensis. American Zoologist 19, 594.

Alderete, M., Tokarz, R., and Crews, D. (1979). Luteinizing hormone-releasing hormone and thyrotropin-releasing hormone induction of female sexual receptivity in the lizard, Anolis carolinensis. American Zoologist 19, 593.

Tokarz, R. R., Seaver, S. S., and Harrison, R. W. (1978). Estrogen regulation of testosterone receptor concentrations in the chick oviduct. Journal of Cell Biology 79, 193.

Dissertation:

Tokarz, R. R. (1977). Effects of mammalian gonadotropins and estradiol on tritiated thymidine labeling of cells in the ovary of the lizard Anolis carolinensis. Ph.D. Dissertation, The University of Colorado, Boulder, CO

CURRICULUM VITA

David L. Wilson, Ph.D.
College of Arts and Sciences
University of Miami
P.O. Box 248004
Coral Gables, Florida 33124
Phone (305) 284-4117

Born: January 11, 1943

Married to Margaret Gibbons Wilson, 1967

Daughter, Mariah, born 1980

Social Security Number: 220-40-3975

Education

B.S. degree, University of Maryland, June, 1964, Physics
Ph.D. degree, University of Chicago, June, 1969, Biophysics

Positions

1969 - 1972	Research Fellow, California Institute of Technology
1972 - 1976	Assistant Professor of Physiology and Biophysics, University of Miami, School of Medicine
1976 - 1981	Associate Professor of Physiology and Biophysics, University of Miami, School of Medicine
1981 - present	Professor of Physiology and Biophysics, University of Miami, School of Medicine (secondary appointment beginning 1985)
1982 - 1985	Deputy Dean for Academic Affairs and Associate Dean for Research and Sponsored Programs, University of Miami, School of Medicine
1983 - 1985	Associate Provost for Research and Dean of the Graduate School (Interim), University of Miami
1985 - present	Professor of Biology, University of Miami
1985 - present	Dean of the College of Arts & Sciences, University of Miami

Honors Fellowships and Grants

Pi Mu Epsilon (Mathematics) (1963)

Sigma Pi Sigma (Physics) (1963)

National Sciences Foundation undergraduate research program (1963-1964)

B.S. degree with honors and honors in Physics (1964)

National Institutes of Health Predoctoral Fellowship (1964-1968)

James Franck Dissertation Fellowship (1968-1969)

Helen Hay Whitney Postdoctoral Fellowship (1969-1972)

Omicron Delta Kappa (1985)

NIH research grant NS10428 (1972-1974) Aplysia neuron proteins

NIH research grant NS12393 (1975-1979) Control of protein synthesis in the nervous system

NIH research grant NS14328 (1978-1982) Axoplasmic transport of proteins

NIH training grant NS07044 (1980-1985) Neuroscience - program director

National Parkinson Foundation (1982-1983) Growth factors with high affinity for nigrostriatal dopaminergic neurons

NSF research grant BNS - 8117817 (1982-1985) Axonal transport and the destination of proteins

NIH research grant NS18263 (1983-1986) Biochemistry of nerve regeneration

Conference Grants (NSF, ONR, and AFOSR) (1987) Gordon Conference on Neural Plasticity

Society Memberships

American Association for the Advancement of Science

American Physiological Society

American Society for Neurochemistry

Sigma Xi

Society for Neuroscience

Educational and University Activities

Teach graduate and undergraduate students in the areas of biology, neuroscience, biochemistry, neurochemistry, neurophysiology, biophysics, cell biology, and molecular biology

Teach MD and PhD-to-MD students, lectures in cellular biophysics and neurophysiology

Served as member or chairperson of numerous Department, School and University committees, including curriculum development, admissions, graduate studies, Faculty Senate, Faculty Senate Council, training grant program committees, search committees, Affirmative Action Committee, Graduate Council, Research Council, Patent and Copyright Committee, University Budget Committee, and numerous ad hoc committees.

Member, Science Committee of the Dade County Council of Arts and Sciences, 1986-

Grant and Manuscript Reviews

Ad hoc member, NIH Neurological Sciences Study Section (1980; 1984) Special Study Section NINCDS (1982)

Grant Reviews for NSF, Veterans Administration, and U.S. - Israel Binational Science Foundation

Manuscript Reviews for *Science*, *Journal of Neurochemistry*, *Cell*, *Experimental Neurology*, *Behavioral and Brain Sciences*, *Journal of Cell Biology*, *Journal of Membrane Biology*, *Canadian Journal of Physiology and Pharmacology*, *Biological Bulletin*

Associate, *Behavioral and Brain Sciences*

Thesis, Dissertation and Postdoctoral Advising

Committee member:

Janet Zengel	Physiology & Biophysics	PhD	1974
James Pollack	Biochemistry	PhD	1975
Jeff Chesky	Physiology & Biophysics	PhD	1975
Nadine Weich	Biochemistry	MS	1975
Lynn Eastman	Physiology & Biophysics	PhD	1975
Rosemary Campbell	Physiology & Biophysics	DA	1976
Greg Young	Philosophy	PhD	1976
Marvin Sussman	Physiology & Biophysics	PhD	1977
John Horn	Physiology & Biophysics	PhD	1978
David Beach	Physiology & Biophysics	PhD	1978
Bette Siegel	Physiology & Biophysics	PhD	1979
Andrew Guterman	Pharmacology	PhD	1979
James Corcoran	Pharmacology	PhD	1981
Roger Loutzenhiser	Pharmacology	PhD	1981
Chip Kaufman	Physiology & Biophysics	PhD	1983
Humberto Valdes	Anatomy	PhD	1985
Richard Kadingo	Physiology & Biophysics	PhD	
Guang-shing Perng	Physiology & Biophysics	PhD	
Ellen Klein	Philosophy	PhD	

Principal Advisor:

Michael E. Hall	Postdoctoral	1976-1979
George C. Stone	Postdoctoral	1976-1979
Evelyn Lopez	M.S.	1977
Gary W. Perry	Postdoctoral	1978-1981
David E. Weil	Postdoctoral	1979-1980
R. Dino Rulli	PhD	1980-1985
Bruce Tedeschi	Postdoctoral	1980-1983
Leonard Gralnik	PhD	1981-1985
(with Dr. John Barrett)		
Susan Krayanek	Postdoctoral	1982-1984

Recent Invited Presentations

- 1975 Society for Neurochemistry, Mexico (Invited Lecture)
 Topic: Protein synthesis in the R15 neuron
- Symposium on Consciousness, Vassar, New York (Invited Lecture)
 Topic: On consciousness and physical reality
- Yale University, Connecticut (Invited Lecture)
 Topic: Protein metabolism and nerve cell function
- 1977 American Physiological Society Symposium, Florida (Organizer and
 participant)
 Topic: Physiological basis of consciousness
- Gordon Conference, New Hampshire (Invited Lecture)
 Topic: Protein synthesis during recovery from nerve damage
- Radiobiological Research Institute, Maryland (Invited Lecture)
 Topic: Mapping protein nervous tissue
- 1978 Reed College
 University of Southern California
 University of Chicago
 Northwestern University (Invited Lectures)
 Topic: Building neurons: from gene regulation to protein destination
- American Philosophical Association Washington, D.C. (Invited Lecture)
 Topic: *The Self and Its Brain, By Popper & Eccles*
- 1979 Gordon Conference, New Hampshire (Invited Lecture)
 Topic: Biochemical aspects of nerve regeneration
- Electrophoresis conference, Germany (Invited Lecture)
 Topic: A method for detecting changes in gene expression
- Society for Neuroscience, Georgia (Invited Dinner Lecture)
 Topic: Testable theories of consciousness
- 1980 Winter Conference on Brain Research, Colorado (Invited participant,
 workshop)
 Topic: Proteins in axoplasmic transport
- 1981 Gordon Conference, New Hampshire (Invited Lecture Symposium Organizer)
 Topic: Protein transport and neural plasticity
- 1982 Sixth Conference on Regeneration in the Central Nervous System, Florida
 (Invited Speaker)
 Topic: Biochemistry of nerve regeneration
- 1983 Conference, Florida State University, (Invited Lecture)
 Topic: The role of axonal transport in nerve regeneration

Rockefeller University, New York (Invited Lecture)
Topic: Supply, routing, and destination of rapidly transported proteins

University-Industry Technology Transfer Conference, Georgia (Invited Speaker)
Topic: University-industry relationships

1984 Federal High Tech (NSF/SBA) Conference, Florida (Invited Speaker)
Topic: University/small, high technology business programs

Eastern Student Research Forum, Florida (Banquet Speaker)
Topic: Impact of federal funding on science and graduate education

1985 Gordon Conference, New Hampshire (Invited Discussant)
Topic: Molecular aspects of nerve growth

1986 National Institute on Aging Conference, Chicago (Invited Speaker)
Topic: Biomarkers of aging

1987 Eastern Student Research Forum, Florida (Banquet Speaker)
Topic: Experimental design in biomedical research

Gordon Conference, New Hampshire (Conference Chairperson)
Topic of Conference: Neural plasticity

Full Publications

- Geiduscheck, E. P., Brody, E. N., Wilson, D. L. 1968. Some aspect of RNA transcription. In Molecular Associations in Biology, B. Pullman, Ed, Academic Press, New York, pp. 163-182.
- Wilson, D. L., Geiduscheck, E. P. 1969. A template-specific inhibitor of in vitro transcription. Proc. Nat. Acad. Sci. 62:514-520.
- Geiduscheck, E. P., Wilson, D. L., Gage, L. P. 1969. Determinants of gene expression during viral development. J. Cell Physiol. 74: supp. 1, 81-85.
- Ward, S., Wilson, D. L., Gilliam, J. J. 1970. Methods for fractionation and scintillation counting of radioisotope labeled polyacrylamide gels. Anal. Biochem. 38:90-97.
- Wilson, D. L., Gage, L. P. 1971. Appendix: Certain aspects of SPO1 development. J. Mol. Biol. 57:297-299.
- Wilson, D. L. 1971. Molecular weight distribution of proteins synthesized in single, identified neurons of Aplysia. J. Gen. Physiol. 57:26-40.
- Wilson, D. L., Arch., S. 1972. Does memory transfer imply limits on human knowledge? Internat. J. Neurosci. 3:43-44.
- Wilson, D. L., Berry, R. W. 1972. The effects of synaptic stimulation on RNA and protein metabolism in the R2 soma of Aplysia. J. Neurobiol. 3:369-379.
- Berry, R. W., Arch., S., Wilson, D. L. 1973. Aplysia nerve proteins (edited). In Proteins of the Nervous System, D. Schneider, ed., Raven Press, New York 67-71.
- Wilson, D. L. 1974. Protein synthesis and nerve cell specificity. J. Neurochem. 22:465-467.
- Wilson, D. L. 1974. The programmed theory of aging. In Theoretical Aspects of Aging, M. Rockstein, ed., Academic Press, New York pp. 11-21.
- Wilson, D. L. 1975. Memory and retrieval. Medical Hypotheses 1:183-185.
- Wilson, D. L. 1976. Alteration of protein metabolism in individual, identified neurons from Aplysia. J. Neurobiol. 7:407-416.
- Strumwasser, F., Wilson, D. L. 1976. Patterns of proteins synthesized in the R15 neuron of Aplysia: temporal studies and evidence for processing. J. Gen. Physiol. 67:691-702.
- Wilson, D. L. 1976. On the nature of consciousness and physical reality. Perspect. Biol. Med. 19:568-581.

- Wilson, D. L. 1977. Gene expression and protein metabolism in individual neurons of Aplysia. In The Biochemistry of Characterized Neurons, N. Osborne, ed., Pergamon press, New York, pp. 261-281.
- Wilson, D. L., Hall, M. E., Stone, G. C., Rubin, R. W. 1977. Some improvements in two-dimensional gel electrophoresis of proteins: Protein mapping of eucaryotic tissue extracts. Anal. Biochem. 83:33-44.
- Wilson, D. L. 1978. Brain Mechanisms, consciousness, and introspection. In Expanding Dimensions of Consciousness, A. A. Sugarman and R. E. Tarter, eds., Springer, New York, pp. 3-23.
- Stone, G. C., Wilson, D. L., Hall, M. E. 1978. Two-dimensional gel electrophoresis of proteins in rapid axoplasmic transport. Brain Res. 144:287-302.
- Wilson, D. L., Hall, M. E., Stone, G. C. 1978. Test of some aging hypotheses using two-dimensional protein mapping, Gerontology 24:426-433.
- Hall, M. E., Wilson, D. L., Stone, G. C. 1978. Changes in synthesis of specific proteins following axotomy: detection with two-dimensional gel electrophoresis. J. Neurobiol. 9:353-366.
- Wilson, D. L. 1978. Neurobiology and epistemology. Federation Proc. 37:2275-2280.
- Wilson, D. L. 1979. Building Neurons: from gene expression to protein destination. Trends in Biochem. Sci. 3:230-232.
- Stone, G. C., Wilson, D. L. 1979. Qualitative analysis of proteins rapidly transported in ventral horn motoneurons and bidirectionally from dorsal root ganglia. J. Neurobiol. 10: 1-12.
- Hall, M. E., Wilson, D. L. 1979. Modification of protein synthesis by deafferentation of rat sympathetic ganglia. Brain Res. 168:414-418.
- Wilson, D. L., Stone, G. C. 1979. Axoplasmic transport of proteins. Ann. Rev. Biophys. Bioengineer. 8:27-45.
- Stone, G. C., Wilson, D. L., Perry, G. W. 1980. The quantitation of radioactively labeled proteins on two-dimensional gels: tests of a method for analyzing changes in protein synthesis and gene expression. Electrophoresis 79, B. Radola, ed., Walter de Gruyter, Berlin pp. 361-383.
- Tedeschi, B., Wilson, D. L., Zimmerman, A., Perry, G. W. 1981. Are axonally transported proteins released from sciatic nerves? Brain Res. 211:175-178.
- Perry, G. W., Wilson, D. L. 1981. Protein synthesis and axonal transport during nerve regeneration. J. Neurochem. 37:1203-1217.
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- Perry, G. W., Krayanek, S. R., Wilson, D. L. 1983. Protein synthesis and rapid axonal transport during regeneration of dorsal roots. J. Neurochem. 40:1590-1598.
- Perry, G. W., Wilson, D. L. 1983. Polypeptides in frog and rat: Evolutionary changes in rapidly transported and abundant nerve proteins. J. Neurochem. 41:772-779.
- Tedeschi, B. W., Wilson, D. L. 1983. Modification of rapidly transported protein in regenerating nerve. J. Neurosci. 3:1728-1734.
- Tedeschi, B. W., Wilson, D. L. 1984. Are different proteins synthesized in distinct domains in a neuron? J. Neurobiology 15:1-11.
- Wilson, D. L. 1984. Molecular events associated with peripheral nerve regeneration. In Axonal Transport in Neuronal Growth and Regeneration, John Elam and Paul Cancalon, eds., Plenum, New York pp. 137-144.
- Rulli, R. D., Wilson, D. L. 1985. Proteins in fast axonal transport are differentially transported in branches of sensory nerves. Brain Research 335:165-168.
- Tedeschi, B. W., Wilson, D. L. 1986. The destination and modification of fast-transported proteins in normal and regrowing nerve. In Axoplasmic Transport, Z. Iqbal, ed., CRC Press, Boca Raton. pp. 263-273.
- Rulli, R. D., Wilson, D. L. 1987. Destinations of some fast-transported proteins in sensory neurons of bullfrog sciatic nerve. J. Neurochem. 48:134-140.
- Tedeschi, B. W., Wilson, D. L. 1987. Subsets of axonally transported and periaxonal polypeptides are released from regenerating nerve. J. Neurochem. 48:463-469.
- Perry, G. W., Krayanek, S. R., Wilson, D. L. 1987. Effects of a conditioning lesion on bullfrog sciatic nerve regeneration; analysis of fast axonally transported proteins. Brain Research 423: 1-12.
- Wilson, D. L. 198_. Aging hypotheses, aging markers, and the concept of biological age. Experimental Gerontology (accepted)

Abstracts, Book Reviews, etc.

- Wilson, D. L. (1967) Early mRNA synthesis in vitro on two bacteriophage DNA templates with homologous and heterologous RNA polymerase (Cold Spring Harbor meetings) Phage Information Service p. 101.
- Gage, L. P., Wilson, D. L., Geiduschek, E. P. (1967) Transcription in bacteriophage SP01 development. Feder. Proc. 26:873.
- Wilson, D. L., Geiduschek, E. P. (1968) In Vitro studies on a template-specific inhibitor of RNA synthesis (Cold Spring Harbor meetings) Phage Information Service p. 76.
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- Wilson, D. L. (1970) Book review (Handbook of Neurochemistry 2. A. Lajtha, ed.) Amer. Scientist 58:435.
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- Wilson, D. L., Strumwasser, F. (1975) Protein metabolism and nerve cell function: Studies on the R15 neuron from Aplysia. Trans. Amer. Soc. Neurochem. 6:73.
- Hall, M. E., Wilson, D. L., Stone, G. C. (1977) Changes in protein metabolism following axotomy. Neuroscience Abstracts 3:32.
- Wilson, D. L., Hall, M. E., Stone, G. C. (1977) Aging theories: tests by two-dimensional protein mapping of nervous tissue. Neuroscience Abstracts 3:123.
- Stone, G. C., Wilson, D. L., Hall, M. E. (1977) Two-dimensional mapping of proteins in rapid axoplasmic transport. Neuroscience Abstracts 3:32.
- Wilson, D. L. (1978) Physiological basis of mental functions: introduction. Federation Proc. 37:2262.
- Stone, G. C., Wilson, D. L. (1978) Similar proteins are transported in dorsal root sensory neurons and ventral horn motoneurons. Soc. Neuroscience Abstracts 4:37.
- Hall, M. E., Wilson, D. L. (1978) Two-dimensional mapping of proteins from rat sympathetic ganglia: changes in synthesis rates following deafferentation and axotomy. Soc. Neuroscience Abstracts 4:473.
- Wilson, D. L. (1978) Book reviews: Neurobiology and mind. SISTM Quarterly 1:44.
- Wilson, D. L. (1978) Brain mechanisms, consciousness and introspection. SISTM Quarterly 2:6.

- Hall, M. E., Wilson, D. L. (1979) Proteins synthesized in sympathetic ganglia following axotomy and nerve factor treatment. Soc. Neuroscience Abstracts 5:627.
- Wilson, D. L. (1979) Commentary: Restricted extracellular pathways for molecular communication? Behavioral and Brain Sciences 2:439-440.
- Wilson, D. L. (1980) Book review (Brain and Mind, Ciba foundation symposium) Contemporary Psychology 25:1008-1009.
- Perry, G. W., Wilson, D. L. (1980) Protein synthesis and axonal transport following peripheral nerve damage. Soc. Neuroscience Abstracts 6:94.
- Perry, G. W., Wilson, D. L. (1981) Comparison of rapidly transported proteins in frog and rat sensory neurons. Soc. Neuroscience Abstracts 7:486.
- Tedeschi, B., Wilson, D. L. (1982) Modification of a rapidly transported protein in regenerating nerves. Transactions of the American Soc. for Neurochem. 13:225.
- Dew, D. K., Verdeja, J. C., Shebert, R. T., Ayyar, D. R., Freeman, C. B. T., Wilson, D. L., Freeman, R. H. (1982) Carbon dioxide laser is successful in repair of transected rat sciatic nerves. Neurology 32:A132.
- Tedeschi, B., Wilson, D. L. (1982) Are different proteins synthesized in distinct domains in a neuron? Soc. Neuroscience Abstracts 8:690.
- Wilson, D. L. (1983) Commentary: A proposed experimental test of Pucetti's dual consciousness hypothesis. Behavioral and Brain Sciences 4:735.
- Wilson, D. L. (1983) Book review (Axoplasmic Transport, D. G. Weiss, ed., Springer-Verlag) Science 220:709-710.
- Tedeschi, B., Wilson, D. L. (1983) Release of fast-transported proteins from regenerating nerve. Soc. Neuroscience Abstracts 8:48.
- Wilson, D. L., Tedeschi, B. (1983) Release of non-neural proteins from regenerating nerve. Soc. Neuroscience Abstracts 8:48.
- Rulli, R. D., Wilson, D. L. (1983) Selective routing of fast transported proteins in branches of sensory axons. Soc. Neuroscience Abstracts 8:148.
- Gralnik, L. M., Barrett, J. N., Wilson, D. L. (1983) Proteins from conditioned media bind to neurons. Soc. Neuroscience Abstracts 8:837.
- Perry, G. W., Tedeschi, B., Wilson, D. L. (1985) Early appearance of A25 (a modified rapidly transported polypeptide) in frog sciatic nerve following damage, and the effects of a conditioning lesion. Soc. Neuroscience Abstracts 11:420.
- Wilson, D. L. (1986) Scotophobin resurrected as neuropeptide. Nature 320:313-314.

- Rulli, R. D., Wilson, D. L. (1987) Destinations of some fast-transported proteins. Journal of Neurochemistry 48:134-140.
- Tedeschi, B., Wilson, D. L. (1987) Subsets of axonally transported and periaxonal polypeptides are released from regenerating nerve. Journal of Neurochemistry 48:463-469.
- Perry, G. W., Krayanek, S. R., Wilson, D. L. (1987) Effects of a conditioning lesion on nerve regeneration. Brain Research 423:1-12.
- Wilson, D. L. (1988) Aging hypotheses, aging markers, and the concept of biological age. Experimental Gerontology (to appear).

VITAE

Michael H. Antoni
8520 S. W. 133 Avenue Road, #123
Miami, Florida 33156
(305) 284-4186

Birth Date: November 20, 1955
Providence, RI

Marital Status: Married
Citizenship: U.S.
Health: Excellent

EDUCATION

August, 1986 Completion of APA-approved Clinical Internship: Miami VAMC

August, 1986 Ph.D. - Clinical Psychology
University of Miami, Coral Gables, FL

May, 1981 M.A. - Psychology
Connecticut College, New London, CT

May, 1979 B.A. - Psychology/Chemistry
University of Rhode Island, Kingston, RI

Master's Thesis completed, 1981:

Antoni, M. H.: Life stress, social supports, and physical illness in Navy personnel.

Dissertation defended, 1985:

Antoni, M. H.: Life stress, and moderator variables in the promotion and persistence of Cervical Intraepithelial Neoplasia.

CLINICAL AND FIELD EXPERIENCE

1987 Acquired license in Clinical Psychology: State of Florida

1986 - 1987 Private Practice (Part-Time)
A & A Counseling Associates, Miami, FL

1985 - 1986 APA-Approved Clinical Internship: Miami VAMC, Miami, FL
Internship involved training in three specialty areas: Health Psychology/Behavioral Medicine, Neuropsychology and Substance Abuse/Addictions (2000 hours)

Health Psychology/Behavioral Medicine - six month rotation involving medical/surgical consultation in departments of Cardiology, Urology, Spinal Cord Injury and Neurology. Special emphasis on coronary risk factor modification, smoking cessation, stress management, and cardiac rehabilitation for coronary bypass

Clinical and Field Experience (continued)

patients; differential diagnosis of organic/psychogenic erectile dysfunction, assessment of pre- and post-surgery psychological status of Urology in-patients, behavioral sex therapy for patients and spouse (Urology in-patients and out-patients); supportive therapy and rehab planning for Spinal cord-injured patients; and EMG/Temp. biofeedback training for Migraine headache and Raynaud's (Neurology) patients.

Neuropsychology - three month rotation involving basic Neuropsychology and Neuropsychological Assessment. Emphasis was on Halstead-Reitan battery in differential diagnosis of organic and functional impairment. Rotation included regular attendance at Neurology rounds (VA), Neurology grand rounds (JMH) and autopsy/brain-cuttings (VA; JMH) and Neuropsychology seminar.

Substance Abuse/Addictions - three month rotation involving in-patient treatment facility at Veterans Hospital. Experiences included daily psychodynamic group therapy, teaching stress management classes and conducting assertiveness training groups. This rotation also involved a regular individual therapy caseload with intensive supervision. A final component of this experience involved vocational rehabilitation and placement for graduating patients.

1984-1985 Practicum - Dade Youth and Family Development, Miami, FL (300 hours)

Supervisor: Daniel Fairchild, Ph.D., Administrative Head
Division of Psychological Services

1984 - 1985 Training Supervisor - Psychological Services Center, University of Miami, Coral Gables, FL (350 hours)

Supervisor: Catherine Green, Ph.D. Director
Psychological Services Center

1983 - 1984 Practicum - Psychological Services Center, University of Miami, Coral Gables, FL (400 hours)

Supervisor: Catherine Green, Ph.D., Director
Psychological Services Center

1981 -1982 Clinical Biofeedback - Department of Orthopedics, Division of Rehabilitation Psychology, Jackson Memorial Hospital, Miami, FL (150 hours)

Supervisor: Bernard Brucker, Ph.D., Chief Psychologist
Division of Rehabilitation Psychology

WORK EXPERIENCE

1986 - 1987 Behavioral Medicine Consultant - Department of Psychological Services, Miami VAMC, Miami, FL

Work Experience (continued)

Non-funded position involved coordination of research between Nova doctoral candidates in clinical psychology and the departments of Psychological Services, Patient Education, Cardiology, and Oncology. Responsibilities included research design and establishing liaison between hospital personnel necessary for implementation of research projects by Nova University.

1985 - 1986 Research Group Coordinator - Cardiac Rehabilitation, Miami VAMC

Supervisor: Mark D. Ackerman, Ph.D.
Psychological Services, Miami VAMC

1983 - 1987 Consulting Psychologist/Statistical-Computer Consultant - Grant Psychiatric Center, Miami, FL

Supervisor: Richard Toister, Ph.D.
Division of Psychiatric Services, Grant Center

1985 - 1986 Consultant for Educational Software design - Rothchild Research and Development, Miami, FL

1984 - 1986 Research Assistant - Clinical Assessment Study, University of Miami, Coral Gables, FL

Supervisor: Theodore Millon, Ph.D., Director
Clinical Psychology Training Program
University of Miami

1982 - 1984 Research and Clinical Assessment - Department of Gynecological Oncology, Jackson Memorial Hospital, Miami, FL

Supervisor: Berndt-Uwe Sevin, M.D., Ph.D.
Department of Gynecological Oncology
Jackson Memorial Hospital

1983 Research Coordinator - Dade County Health Fair, Miami, FL

Supervisor: Jack Tapp, Ph.D.
Professor of Psychology
Nova University
Ft. Lauderdale, FL

1982 - 1983 Research Assistant - Study of self-awareness, self-expectancy, and performance in college students. University of Miami, Coral Gables, FL

Supervisor: Charles S. Carver, Ph.D.
Professor of Psychology
University of Miami

Work Experience (continued)

- 1982 Research Assistant - EMG biofeedback, personality, and functional outcome in cerebral-vascular accident patients.

Supervisor: Bernard Brucker, Ph.D.
Department of Rehabilitation Psychology
Jackson Memorial Hospital
Miami, FL
- 1981 Research Assistant - Type A Assessment Study

Supervisor: Neil Schneiderman, Ph.D., Director
Behavioral Medicine Program
University of Miami
- 1979 - 1981 Research Assistant - Study of life stress in Navy submarine personnel, Groton Nuclear Submarine Training Base, Groton, CT

Supervisor: Irwin G. Sarason, Ph.D.
Professor of Psychology
University of Washington
Seattle, WA

TEACHING EXPERIENCE

- 1987 Assistant Professor of Psychology - University of Miami
- 1986 - 1987 Assistant Professor of Psychology - Nova University Center for Psychological Studies, Ft. Lauderdale, FL

Responsibilities involved teaching graduate courses in physiological psychology, behavioral medicine, and behavior modification. Additional responsibilities included research supervision, research and publication, dissertation committee membership, and administrative duties.
- 1983 - 1985 Instructor - Statistical Methods in the Behavioral Sciences, University of Miami

Supervisor: Robert Tallarico, Ph.D., Director
Undergraduate Studies

OTHER TEACHING EXPERIENCE

- 1983 - 1984 Tutoring - Statistics and Computer Analysis
- 1981 - 1982 Music Lessons - Private
Part-time piano teacher in studio.

PROFESSIONAL AFFILIATIONS

Association for the Advancement of Health
Society of Behavioral Medicine
Association Advancement Behavior Therapy (AABT)
American Psychological Association (Division 38)
Neuroimmunomodulation (NIM)
Phi Kappa Phi Honor Society
American Association for the Advancement of Science
Society for Personality Assessment
International Psycho-Oncology Society

ADVANCED COURSEWORK

Clinical Assessment:
General Clinical Assessment
Psychological Assessment of Physical Disorder
Advanced Adult Assessment (projectives)
Neuropsychological Assessment
Personality/Psychopathology:
General Psychopathology
Experimental Psychopathology and Psychosomatics
Psychotherapy:
Introduction to Clinical Methods
Psychotherapy and Behavior Modification I
Psychotherapy and Behavior Modification II
Health Psychology Interventions
Behavioral Medicine:
Psychophysiology
Psychobiology
Behavioral Medicine
Social Psychology of Health and Disease
Seminar in Behavioral Medicine: Behavioral Interventions
Chronic Disease Epidemiology Research Techniques

CONFERENCES AND SEMINARS

1987 Symposium on Current Concepts in Psycho-oncology, MSKCC, New York, NY
1987 Ninth Annual Society of Behavioral Medicine Conference, Washington, DC
1986 Fourth Annual Workshop on Aging - Dr. Carl Eisdorfer, Miami VMAC, Miami, FL
1986 Eighth Annual Society of Behavioral Medicine Conference, San Francisco, CA
1986 Millon Inventories Conference and Workshop, Miami Beach, FL
1985 Family Systems Workshop - Dr. Salvador Minuchin, Miami, FL
1984 Neuroimmunomodulation Conference, Dr. Herbert Spector, New York, NY
1984 Symposium on Stress, Dr. Neil Schneiderman, Miami, FL
1983 Symposium on Stress, Dr. Neil Schneiderman, Miami, FL
1981 Annual Conference for Society of Behavioral Medicine, New York, NY

OTHER EXPERIENCES AND ACTIVITIES

- 1986 - 1987 Journal Reviewer: *Journal of Personality Assessment*
1986 - 1987 Journal Reviewer: *Psychology and Health: an International Journal*
1987 Journal Reviewer: *Journal of Personality Disorders*

PUBLICATIONS

- Antoni, M. H., & Goodkin, K. (in press). Life stress and moderator variables in the promotion of cervical neoplasia. I: Personality facets. *Journal of Psychosomatic Research*.
- Antoni, M. H. (1987). Neuroendocrine influences in psychoimmunology and neoplasia: A review. *Psychology and Health: An International Journal*, 1, 3-24.
- Antoni, M. H. (1986). The use of the MBHI in a cervical cancer population. *Proceedings of the Millon Clinical Inventories Conference*, March, National Computer Service.
- Antoni, M. H. (1986). *Life stress, moderator variables and the promotion and persistence of cervical intraepithelial neoplasia to invasive cervical cancer*. Unpublished doctoral dissertation.
- Antoni, M. H. (1985). Temporal relationship between life events and two illness measures: A cross-lagged panel analysis. *Journal of Human Stress*, Spring, 21-26.
- Antoni, M. H., Levine, J., Tischer, P., Green, C., & Millon, T. (1987). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part V: MMPI 78/87. *Journal of Personality Assessment*, 51(3), 375-387.
- Antoni, M. H., Tischer, P., Levine, J., Green, C., & Millon, T. (1985). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part I: MMPI 28/82. *Journal of Personality Assessment*, 49(4), 392-398.
- Antoni, M. H., Tischer, P., Levine, J., Green, C., & Millon, T. (1985). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part III: MMPI 24/42. *Journal of Personality Assessment*, 49(5), 508-515.
- Antoni, M. H., Levine, J., Tischer, P., Green, C., & Millon, T. (1986). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part IV: MMPI 98/89. *Journal of Personality Assessment*, 50(1), 65-72.
- Carver, C. S., Antoni, M. H., & Scheier, M. F. (1985). Self-consciousness and self-assessment. *Journal of Personality and Social Psychology*, 48, 114-121.
- Goodkin, K., Antoni, M. H., & Blaney, P. H. (1986). Stress and hopelessness in the promotion of cervical intraepithelial neoplasia to invasive squamous cell carcinoma of the cervix. *Journal of Psychosomatic Research*, 30(1), 67-76.
- Levine, J., Tischer, P., Antoni, M., Green, C., & Millon, T. (1985). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part II: MMPI 27/72. *Journal of Personality Assessment*, 49(4), 501-507.

Publications (continued)

- Millon, T., Millon, C., & Antoni, M. (1986). Sources of emotional and mental disorders among psychologists: A career development perspective. In American Psychological Association (Ed.), *Psychologists in distress*. Washington, DC: APA Press, pp. 119-136.
- Sarason, I. G., Potter, E. H., Antoni, M. H., & Sarason, B. R. (1985). Life events, social support and illness. *Psychosomatic Medicine*, 47(2), 156-163.
- Sarason, I. G., Potter, E. H., Antoni, M. H., & Sarason, B. R. (1982). Life events, social support and illness. (CO-ONR-006) Office of Naval Research, Virginia: Organizational Effectiveness Research Program (Code 442), August 3, 1982 (NOOO14-80-C-0522, NR 170-908).

MANUSCRIPTS UNDER REVIEW

- Antoni, M. H., & Goodkin, K. (1987). Internal and external host variables in the promotion of cervical neoplasia. *Journal of Psychosocial Oncology*.
- Antoni, M. H. (1987). Assessment of two measures of social support as moderators of the life event-physical symptom relationship. *Psychology and Health: An International Journal*.
- Antoni, M. H., Levine, J., Tischer, P., Green, C., & Millon, T. (1987). Refining personality assessments by combining MCMI high point profiles with MMPI codes, Part VI: MMPI 46/64. *Journal of Personality Assessment*
- Antoni, M. H., Green, C., Sandberg, M., & Millon, T. (1987). On the relationship between the DSM-III and the Millon Clinical Multiaxial Inventory. *Journal of Personality Assessment*.

MANUSCRIPTS IN PREPARATION

- Antoni, M. H., & Goodkin, K. Life stress and moderator variables in the promotion of cervical neoplasia. II: Life event dimensions.
- Antoni, M. H., & Goodkin, K. Life stress and moderator variables in the promotion of cervical neoplasia. III: External assets.
- Kolitz, S., & Antoni, M. H. Personality style and immediate help-seeking responses following the onset of myocardial infarction.

ABSTRACTS UNDER REVIEW

- Antoni, M. H., & Goodkin, K. Life stress and hostmoderator variables in the promotion of cervical intraepithelial neoplasia. Paper submission for Tenth annual scientific meeting of Society of Behavioral Medicine, 1988.

Abstracts Under Review (continued)

Ackerman, M. D., Antoni, M. H., & Helder, L. M. Predictors of psychological distress among aging men experiencing erectile dysfunction. Paper submission for Tenth annual scientific meeting of Society of Behavioral Medicine, 1988.

Ironson, G., O'Hearn, P., Laperriere, A., Antoni, M., Ashman, M., Schneiderman, N., & Fletcher, M. News of HIV antibody status and immune function in healthy gay males. Paper submission for Tenth annual scientific meeting of Society of Behavioral Medicine, 1988.

RESEARCH FUNDING

Antoni, M. H. (1987). Modulation of cellular immunity in an AIDS high risk group via biofeedback-assisted relaxation training - BRSG, S07, RR07022-20 awarded by Biomedical Research Support Program, Division of Research Resources, National Institutes of Health. Award = \$4,770.

Antoni, M. H. (1987). Effects of biofeedback-assisted relaxation and psychosocial intervention on the incidence of CIN in a high risk group. General Research Support Award, Research & Sponsored Programs, University of Miami. Award = \$2,000.

Antoni, M. H. (1987). Modulation of cellular immunity in an AIDS high risk group via biofeedback-assisted relaxation intervention. Summer Award in Business and the Social Sciences, Research & Sponsored Programs, University of Miami. Award = \$5,000.

FUNDING PROPOSALS IN PREPARATION

Antoni, M. H. (P.I.). Psychosocial factors in the promotion of cervical intraepithelial neoplasia. To be submitted for First Independent Research Support and Transition Award, National Institute of Mental Health (2/1/88).

CURRICULUM VITAE

LYNN A. DUREL

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PRESENT POSITION: Assistant Professor

DATE AND PLACE OF BIRTH: March 29, 1940; Mobile, Alabama

SOCIAL SECURITY NO: 424-52-7852

EDUCATION:

1962	B.S.	Biology Spring Hill College, Mobile, Alabama
1978	M.A.	General Studies with specialization of community health education Towson State University, Towson, Maryland
1986	Ph.D.	Medical Psychology Uniformed Services University of Health Sciences Bethesda, Maryland

PROFESSIONAL EMPLOYMENT AND EXPERIENCE:

1985 - present	Assistant Professor, Department of Psychology University of Miami
1980 - 1985	Teaching/Research Associate (with D.S. Krantz, Ph.D.), Uniformed Services University
1978 - 1980	Instructor, Department of Health East Tennessee State University

PROFESSIONAL ACTIVITIES AND SOCIETIES:

Member, American Psychological Association

Student Member, American Psychological Association, Program Committee, 1982,
Division 38 (*Health Psychology*)

Program Committee, Society for Behavioral Medicine, 1983

Host Committee, Society for Psychophysiological Research, 1981

Ad hoc reviewer, *Health Psychology*

MAJOR AREAS OF INTEREST:

Biobehavioral factors in cardiovascular disease and in emotion
Cardiovascular and neuroendocrine reactivity to stress
Effects on mood and behavior of beta-adrenergic blocking drugs
Behavioral pharmacology
Health of women
Behavioral sciences in medical education

PUBLICATIONS:

- Patton, R. D., Walker, H. B., Durel, L. A., McMahan, E. L., Murphy, E. P., & Wilson, C. C. (1980). Society for public health education: Survey of membership. *Health Education Quarterly*, 7, 35-55.
- Krantz, D. S., Durel, L. A., Davia, J. E., Shaffer, R. T., Arabian, J. M., Dembroski, T. M., & MacDougall, J. M. (1982). Propranolol medication among coronary patients: Relationship to Type A behavior and cardiovascular response. *Journal of Human Stress*, 8(3), 4-12.
- Krantz, D. S., & Durel, L. A. (1983). Psychobiological substrates of the Type A behavior pattern. *Health Psychology*, 2(4), 393-411.
- Krantz, D. S., Durel, L. A., Singer, J. E., & Gatchel, R. J. (1983). Teaching psychology in the medical curriculum: Student's perceptions of a basic science course in medical psychology, 10(3), 149-153.
- Durel, L. A., Krantz, D. S., Eisold, J., & Lazar, J. D. (1985). Behavioral effects of beta-blockers: Reduction of anxiety, acute stress, and Type A behavior. *Journal of Cardiopulmonary Rehabilitation*, 5(6), 267-273.
- Durel, L. A., & Krantz, D. S. (1985). The possible effects of beta-adrenergic blocking drugs on behavioral and psychological concomitants of anger. In: M. A. Chesney, & R. H. Rosenman (Eds.), Anger and hostility in cardiovascular and behavioral disorders. New York: Hemisphere/McGraw-Hill.
- Durel, L. A., Krantz, D. S., & Barrett, J. E. (1986). The antianxiety effect of beta-blockers on punished responding. *Pharmacology Biochemistry and Behavior*, 25, 371-374.
- Krantz, D. S., Contrada, R. J., La Riccia, P. J., Anderson, J. R., Durel, L. A., Dembroski, T. M., & Weiss, T. (in press). Effects of beta-adrenergic stimulation and blockade on cardiovascular reactivity, affect, and Type A behavior. *Psychosomatic Medicine*.

PRESENTATIONS AND PUBLISHED ABSTRACTS:

- Durel, L. A., Krantz, D. S., Arabian, J. M., Davia, J. E., Shaffer, R. T., Dembroski, T. M., & MacDougall, J. M. (1982). Type A behavior and cardiovascular response: Relationship to propranolol medication. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August.

PRESENTATIONS AND PUBLISHED ABSTRACTS: (continued)

Krantz, D. S., & Durel, L. A. (1982). Bi-directional relationships between cardiovascular reactivity and Type A behavior. Symposium on Assessment of Type A and Other Coronary-prone Behavior Patterns. American Psychological Association Annual Meeting, Washington, DC, August.

Krantz, D. S., Durel, L. A., Davia, J. E., Shaffer, R. T., Arabian, J. M., Dembroski, T. M., & MacDougall, J. M. (1982). Propranolol, cardiovascular response, and Type A behavior in coronary patients. Presented at the annual meeting of the Society for Psychophysiological Research, Minneapolis, September, *Psychophysiology*, 19(5). (Abstract)

Durel, L. A. (1982). Symptoms, cardiovascular disorders, and anxiety. Paper presented at the annual meeting of the District of Columbia Psychological Association, Washington, DC, December.

Krantz, D. S., Contrada, R. J., La Riccia, P. J., Durel, L. A., Anderson, J., & Weiss, T. (1985). Effects of acute beta-adrenergic stimulation and blockade of cardiovascular reactivity and affect ratings. *Psychosomatic Medicine*, 47(1), 82-83. (Abstract)

Durel, L. A., Krantz, D. S., & Barnett, J. E. (1985). The antianxiety effect of beta-blockers on punished responding. Presented at the annual meeting of the American Psychosomatic Society, Washington, DC, March, *Psychosomatic Medicine*, 47(1), 78. (Abstract)

TEACHING EXPERIENCE:

Courses

Introduction to Psychology as a Social Science
Psychopharmacology
Drugs and Behavior
Psychology of Medicine
Personal Health
Introduction to Community Health
Health of Women

Lectures/Seminars

Psychopharmacology of anxiety
The effects of beta-blockers on mood and behavior
Theories of Anger
Psychosomatic aspects of angina pectoris

CURRICULUM VITAE

Charles S. Carver

ADDRESS: Department of Psychology
University of Miami, P.O. Box 248185
Coral Gables, Florida 33124

PHONE: Office (305) 284-2817 (messages 284-2814)
Home (305) 445-6931

BIRTHDATE: August 19, 1947

SOCIAL SECURITY NUMBER: 296-44-6893

MARITAL STATUS: Unmarried

EDUCATION:

A.B., Brown University, Providence, Rhode Island, 1969

Ph.D., University of Texas at Austin, Austin, Texas, 1974

Major area of concentration: Experimental Personality and Social Psychology

PROFESSIONAL EXPERIENCE:

Postdoctoral Research Associate (with David C. Glass), Department of Psychology,
University of Texas at Austin, 1974-1975

Assistant Professor, Department of Psychology, University of Miami, 1975-1979

Associate Professor, Department of Psychology, University of Miami, 1979-1982

Professor, Department of Psychology, University of Miami, 1982-present

Guest Professor, Max-Planck-Institut für Psychologische Forschung, München,
Federal Republic of Germany, summer 1983

PROFESSIONAL MEMBERSHIPS:

American Psychological Association
Society for Experimental Social Psychology
Eastern Psychological Association
Society for Test Anxiety Research
Psychonomic Society
Sigma Xi

GRANT AWARDS:

National Institute of Health Biomedical Sciences Support Grant (Institutional), 1975-1976

National Institute of Health Biomedical Sciences Support Grant (Institutional), 1977-1978

National Science Foundation grant BNS-8107236, 1981-1984, "Self-Attention, Expectancy,
and Behavioral Regulation," total costs \$64,815

National Science Foundation grant BNS-8414601, 1984-1987, "A Control-Theory Approach to
Social Anxiety," total costs \$121,063

National Institute on Alcohol Abuse and Alcoholism grant AA06047-01, 1985-1989,
"Predicting Relapse Following Alcoholism Treatment," total costs \$461,956
[Collaborating Investigator] National Heart, Lung, and Blood Institute Program Project
grant mmmmmm, 1986-1991, "Psychophysiology of Cardiovascular Reactivity,"
Neil Schneiderman PI.
National Science Foundation Grant, BNS 8717783, 1987-1990, "Dispositional Optimism,
Coping, and Stress: Extensions and Mechanisms of Operation," total costs \$171,862

EDITORIAL EXPERIENCE:

Action Editor, *Journal of Personality and Social Psychology*, July 1978 through June 1979.
Consulting Editor, *Journal of Personality and Social Psychology*, 1985.
Consulting Editor, *Cognitive Therapy and Research*, 1986-present.
Editorial consultant for *Psychological Review*, *Journal of Personality and Social Psychology*,
Journal of Experimental Social Psychology, *Psychological Bulletin*, *Journal of Research in*
Personality, *Cognitive Therapy and Research*, *Journal of Abnormal Psychology*, *Journal of*
Personality, *Personality and Social Psychology Bulletin*, *Health Psychology*, *Journal of*
Applied Social Psychology, *Basic and Applied Social Psychology*, *Social Psychology*
Quarterly, *European Journal of Social Psychology*, *Psychology and Health*, *Science*,
Human Relations, *Behavioral and Brain Sciences*, *American Psychologist*

CURRENT RESEARCH INTERESTS:

Situational self-awareness and dispositional self-consciousness, and their role in both
functional and dysfunctional aspects of behavioral self-regulation; Optimism as a mediator of
effective self-management in a variety of domains, including health-related behaviors; Stress
and coping processes; Test anxiety, social anxiety, and processes by which their experiential
and behavioral consequences are mediated; Cognitive processes in depression

TEACHING INTERESTS:

Introductory psychology; Personality psychology; Social psychology;
The self in self-regulation

PUBLICATION:

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- Carver, C. S., Scheier, M. F., & Klahr, D. (1987). Further explorations of a control-process model of test anxiety. In R. Schwarzer, H. M. van der Ploeg, & C. D. Spielberger (Eds.), *Advances in test anxiety research* (Vol. 5). Lisse: Swets & Zeitlinger.
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- Carver, C. S., & Matthews, K. A. (in press). An overview of issues in psychometric assessment. In N. Schneiderman, P. Kaufman, & S. M. Weiss (Eds.), *Handbook of research methods in cardiovascular behavioral medicine*. New York: Plenum.
- Carver, C. S., & Scheier, M. F. (in press). A control-process perspective on anxiety. *Anxiety Research: An International Journal*.
- Carver, C. S., & Scheier, M. F. (in press). Performing poorly, performing well: A view of the self-regulatory consequences of confidence and doubt. *International Journal of Educational Research*.
- Carver, C. S., La Voie, L., Kuhl, J., & Ganellen, R. J. (in press). Generalization, high standards, self-criticism, and depression: A further examination. *Journal of Social and Clinical Psychology*.

PAPERS PRESENTED:

- Carver, C. S. *Raising self-esteem through objective self-awareness*. Eastern Psychological Association, New York, 1975.
- Carver, C. S., & Blaney, P. H. *Attention, perceived arousal, and avoidance*. Eastern Psychological Association, Boston, 1977.
- Scheier, M. F., & Carver, C. S. *Self-consciousness and reactions to fear: When standards and affect collide*. Midwestern Psychological Association, Chicago, 1978.
- Carver, C. S. *Expectancy, focus of attention, and fear-based avoidance*. American Psychological Association, Toronto, 1978.
- Carver, C. S. *Self-awareness, self-consciousness, and reactance*. American Psychological Association, Toronto, 1978.
- Scheier, M. F., Carver, C. S., & Gibbons, F. X. *Self-directed attention and awareness of bodily states*. American Psychological Association, New York, 1979.
- Carver, C. S. *Responding to failure: The interactive effect of self-focus and expectancies*. American Psychological Association, New York, 1979.
- Scheier, M. F., & Carver, C. S. *The self-attention-induced feedback loop and behavioral regulation*. American Psychological Association, Montreal, 1980.
- Carver, C. S. *Some reflections on the cybernetic approach to self-regulation*. American Psychological Association, Montreal, 1980.
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- Follansbee, D. J., Carver, C. S., Peterson, L. M., & Scheier, M. F. *Persistence among persons high and low in test anxiety as a function of self-directed attention*. Eastern Psychological Association, New York, 1981.
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- Humphries, C., Neumann, P. G., & Carver, C. S. *Cognitive characteristics of the Type A coronary-prone behavior pattern*. Eastern Psychological Association, New York, 1981.
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- Scheier, M. F., & Carver, C. S. *Public and private self-attention and behavior-goal comparisons*. American Psychological Association, Los Angeles, 1981.
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- Carver, C. S., & Scheier, M. F. *Control-theory approach to personality-social psychology: An update*. American Psychological Association, Washington, D. C., 1982.
- Peterson, L. M., Carver, C. S., Follansbee, D. J., & Scheier, M. F. *Self-focused attention and test anxiety*. American Psychological Association, Washington, D. C., 1982.
- Carver, C. S., & Scheier, M. F. *Self-consciousness and coping*. Miami Symposium on Stress and Coping. Coral Gables, Florida, 1983.
- Carver, C. S., & Ganellen, R. J. *High standards, self-criticism, and overgeneralization: Aspects of self-punitiveness and their relationship to depression*. Eastern Psychological Association, Philadelphia, 1983.
- Carver, C. S., & Scheier, M. F. *Self-focused attention in test anxiety: A general theory, applied to a specific phenomenon*. Society for Test Anxiety Research, Louvain, Belgium, 1983.
- Carver, C. S. *Functional and dysfunctional responses to anxiety: The interaction between expectancies and self-focused attention*. Invited address, International Conference on Anxiety and Self-related Cognitions, Berlin, Federal Republic of Germany, 1983.
- Carver, C. S. *On the usefulness of a hierarchical conception of self*. Nag's Head Conference on the Self, Nag's Head Conference Center, North Carolina, 1984.
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- Weintraub, J. K., Carver, C. S., & Scheier, M. F. *Dispositional optimism and strategies of coping*. Eastern Psychological Association, Boston, 1985.
- Carver, C. S. *A control-process model of behavioral self-regulation: General principles, applications, and a few speculations concerning performance in sport*. Invited address, North American Society for Sport Psychology and Physical Activity, Gulfport, Mississippi, 1985.
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- Scheier, M. F., & Carver, C. S. *A model of behavioral self-regulation: From intention to action*. American Psychological Association, Washington, D. C., 1986.
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- Carver, C. S. *Rumination and stress: The good, the bad, and the ugly*. Invited presentation, Conference on Ruminations, Self-relevant Cognitions, and Stress. Center of Excellence, Memphis State University, Memphis, TN, 1987.
- Carver, C. S., & Scheier, M. F. *Expectancies and coping: From test anxiety to pessimism*. Society for Test Anxiety Research, Bergen, Norway, 1987.
- Strack, S., Carver, C. S., & Blaney, P. H. *Dispositional optimism as a predictor of successful aftercare treatment for alcoholics*. American Psychological Association, New York, 1987.
- Carver, C. S., & Scheier, M. F. *Dispositional optimism, coping, and stress*. American Psychological Association, New York, 1987.
- Carver, C. S. *The Structure of Self-regulation, and Responses to Adversity*. Invited presentation, University of Massachusetts Conference on Adversity. Amherst, MA, 1988.

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CURRICULUM VITAE

David R. Liskowsky
Research Assistant Professor
Department of Psychology

A. PERSONAL DATA

Mailing Address: Department of Psychology
University of Miami
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Key Biscayne, Florida 33149
Phone: (305) 361-5120

Date of Birth: May 21, 1950

Place of Birth: Malden, Massachusetts

Marital Status: Single

B. EDUCATIONAL HISTORY

<u>Institution</u>	<u>Dates Attended</u>	<u>Degree and Major</u>
University of Miami Department of Pharmacology	3/81 - 5/85	Post-Doctoral
University of Miami Department of Psychology	9/76 - 2/81	Ph.D. Psychology M.S. Psychology
Northeastern University	9/71 - 6/74	B.S. Psychology
Colby College	9/68 - 6/70	Biology

Ph.D. Dissertation: The descending bradycardia pathways between the parabrachial nucleus and the medulla in the rabbit.

Masters Thesis: The location of abdominal vagal preganglionic efferent cell bodies in the medulla of monkeys, cats, and rabbits.

Advisor: Dr. Neil Schneiderman

C. CURRENT APPOINTMENTS

10/86 - present	Research Assistant Professor Dept. of Psychology
10/86 - present	Research Assistant Professor Dept. of Pharmacology
3/87 - present	Affiliate Faculty Campus Wide Neuroscience Program

D. GRANTS AND AWARDS

Basic Research Support Grant, University of Miami, Co-PI	1/87 - 12/87
General Research Support Award - University of Miami, NIH	1/87 - 12/87
NIH Individual Post-doctoral Fellowship #1F32 NS07221-01	3/83 - 2/85
University of Miami - Teaching Assistantship	9/76 - 6/80
Graduated with Honors - Northeastern University	6/74

E. RESEARCH EXPERIENCE

1986 - present	Research conducted at the University of Miami, Department of Psychology
	a. Examination of CNS control of the cardiovascular system using neurophysiological, neuroanatomical, immunohistochemical behavioral, and conditioning techniques
1985 - 1986	Research conducted at the Veteran's Administration Hospital, Miami Department of Neuropathology
	Research Assistant Professor Laboratory of Dr. M. Norenberg
	a. Examination of benzodiazepine and beta-adrenergic receptors on cultured glial cells
1981 - 1985	Research conducted at the University of Miami Medical School Department of Pharmacology
	Supervisor: Dr. Lincoln T. Potter
	a. Receptor binding assays - Examination of characteristics and anatomical distribution of dopamine receptor subtypes in the striatum and frontal cortex

Research Experience (continued)

- b. Studies of the uptake and distribution, in vivo, of synaptic ligands (L-DOPA, scopolamine) for possible use as tracers with positron emission tomography
- c. Autoradiographic localization of receptor populations using labelled ligands

1976 - 1981

Research conducted at the University of Miami
Department of Psychology

Advisor: Dr. Neil Schneiderman

- a. Examination of CNS control of cardiovascular responses using extracellular single unit recording, stimulating, and lesioning techniques
- b. Anatomical investigations of CNS pathways involved in mediating cardiovascular responses using HRP tracing techniques

1974 - 1976

Research conducted at the Neurological Unit of Boston State Mental Hospital

- a. Anatomical investigation of the CNS vestibular pathways in cats and monkeys using HRP and autoradiographic techniques

F. RESEARCH SKILLS

Receptor binding assays
Autoradiographic localization of receptor populations
Extracellular single unit recording
Immunohistochemistry
Anatomical tracing techniques (HRP, PHA, fluorescent tracers)
Perfusion, histological, and staining techniques
Electrical stimulation and lesioning techniques
Dissecting and stereotaxic surgical techniques

G. TEACHING EXPERIENCE

10/86 - present
5/82 - 10/86

Research Assistant Professor
Adjunct Assistant Professor
Department of Psychology
University of Miami

Graduate Seminars - Neuropharmacology
- Neuroanatomy

Undergraduate - Physiological Psychology; Psychobiology Lab

Teaching Experience (continued)

10/86 - present	Research Assistant Professor
5/85 - 10/86	Adjunct Assistant Professor
4/81 - 5/85	Lecturer
	Department of Pharmacology University of Miami School of Medicine Pharmacology (sophomore medical students - 4 semesters; Ph.D. to M.D. program - 4 semesters)
8/78 - 12/79	Instructor University of Miami Department of Psychology Psychology as a Biological Science (3 semesters)
9/74 - 3/75	Teacher Malden Public School System Malden, Massachusetts Secondary school level
9/73 - 6/74	Teaching Assistant Northeastern University Department of Psychology Psychophysics (2 semesters)

G. DISSERTATION COMMITTEES

Howard Ellenberger	Ph.D. - 1984
William Le Blanc	Ph.D. - 1985
Theodore Jarrell	Ph.D. - 1986
Peter Vera	Ph.D. - 1987
Alan Teich	Ph.D. - 1987
Christopher Gentile	Ph.D. - 1987

H. RESEARCH PUBLICATIONS

Wallach, J. H., Ellenberger, H., Schneiderman, N., Liskowsky, D. R., Hamilton, R. B., & Gellman, M. (1979). Preoptic-anterior hypothalamic area as a mediator of bradycardia responses. Neuroscience Abstracts, 5, 52.

Hamilton, R. B., Ellenberger, H., Liskowsky, D. R., Schneiderman, N., & Gellman, M. (1980). Parabrachial nucleus as a mediator of bradycardia in rabbits. Neuroscience Abstracts, 6, 264.

Hamilton, R. B., Ellenberger, H., Liskowsky, D. R., & Schneiderman, N. (1981). Parabrachial area as a mediator of bradycardia in rabbits. Journal of the Autonomic Nervous System, 4, 261-281.

Research Publications (continued)

- Liskowsky, D. R., Ellenberger, H., Hazelton, J. R., & Schneiderman, N. (1981). Descending bradycardia pathways between the parabrachial nucleus and the medulla in the rabbit. Neuroscience Abstracts, Z, 824.
- Ellenberger, H., Hazelton, J. R., Liskowsky, D. R., & Schneiderman, N. (1982). Localization of cardio-inhibitory motoneurons in the medulla of the rabbit. Federal Proceedings Abstracts, 41, 1517.
- Liskowsky, D. R., & Potter, L. T. (1982). Pre-PET studies of L-DOPA in rats. Federal Proceedings Abstracts, 41, 1062.
- Liskowsky, D. R., & Potter, L. T. (1983). Two components of spiroperidol binding in the rat striatum. Neuroscience Abstracts, 9.
- Ellenberger, H., Hazelton, J. R., Liskowsky, D. R., & Schneiderman, N. (1983). The location of chronotropic cardioinhibitory vagal motoneurons in the medulla of the rabbit. Journal of the Autonomic Nervous System, 9, 513-529.
- Vora, M. M., Finn, R. D., Boothe, T. E., Liskowsky, D. R., & Potter, L. T. (1983). ¹¹C-scopolamine: Synthesis and distribution in rat brain. Journal of Laboratory Compounds and Radiopharmacology, 20(11), 1229-1233.
- Liskowsky, D. R., & Potter, L. T. (1985). Pre-PET studies of the distribution of ³H-L-DOPA in the rat. Neuroscience Letters, 56, 161-167.
- Liskowsky, D. R., & Potter, L. T. (1985). D2 dopamine receptors in the frontal cortex of the rat and human. Life Sciences, 36(16), 1551-1559.
- Liskowsky, D. R., & Potter, L. T. (1985). Muscarine binding sites localised on mesocortical dopamine terminals. Neuroscience Letters, 58, 229-233.
- Liskowsky, D. R., Salvatierra, A. T., Weiner, W., & Potter, L. T. (1985). Behavioral and receptor changes in nigrostriatal lesioned rats after chronic dopamine agonists. Neuroscience Abstracts, 11, 186.
- Liskowsky, D. R., Norenberg, L. O. B., & Norenberg, M. D. (1986). Effects of ammonia on cyclic AMP production in primary astrocyte cultures. Brain Research, 386(1-2), 386-389.
- Liskowsky, D. R., & Potter, L. T. (1987). D2 receptors in the striatum and frontal cortex following chronic haloperidol administration. Neuropharmacology, 26(5), 481-483.
- Vera, P. L., Liskowsky, D. R., McCabe, P. M., & Schneiderman, N. (1987). Serotonergic- and noradrenergic-like immunoreactive terminals in the thoracic intermediate grey matter of the rabbit project to retrogradely identified sympathetic preganglionic neurons. Neuroscience Abstracts, 13.

Research Publications (continued)

- Liskowsky, D. R., Winters, R. W., Vera, P. L., McCabe, P. M., Schneiderman, N. (1987). Connections between cardiovascular areas of the hypothalamus and the periaqueductal grey region of the rabbit. Neuroscience Abstracts, 13.
- Teich, A. H., Gentile, C. G., McCabe, P. M., Jarrell, T. W., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. Auditory cortex lesions disrupt the acquisition of differential bradycardiac conditioning to tonal stimuli in rabbits. Neuroscience Abstracts, 13.
- Haselton, J. R., Winters, R. W., Liskowsky, D. R., Haselton, C. L., McCabe, P. M., & Schneiderman, N. (in press). Cardiovascular responses elicited by electrical and chemical stimulation of the rostral medullary raphe of the rabbit. Brain Research.
- Haselton, J. R., Winters, R. W., Liskowsky, D. R., Haselton, C. L., McCabe, P. M., & Schneiderman, N. (in press). Anatomical and functional connections of neurons of the rostral medullary raphe of the rabbit. Brain Research.
- Teich, A.H., McCabe, P.M., Gentile, C.G., Schneiderman, L.S., Winters, R.W., Liskowsky, D.R., & Schneiderman N. (in press). Auditory cortex lesions prevent the extinction of Pavlovian differential heart rate conditioning to tonal stimuli in rabbits. Brain Research.

I. Book Chapters

- McCabe, P. M., Schneiderman, N., Jarrell, T. W., Gentile, C. G., Teich, A. H., Winters, R. W., & Liskowsky, D. R. (in press). Central pathways involved in classical differential conditioning of heart rate responses in rabbits. In I. Gormezano, & J. H. Harvey, Neural substrates of learning. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.

VITA

David Liskowsky

Page 7

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VITA OF RAY WINTERS

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4. Office phone: (305) 284-3327 or 284-2814
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6. Social Security Number: 220-40-0910

B. EDUCATIONAL BACKGROUND

1. B.S. - 1964 Michigan State University; Psychology, Physics
2. M.A. - 1966 Michigan State University; Psychology
3. Ph.D. - 1969 Michigan State University; Psychology, Neurophysiology

C. PROFESSIONAL EXPERIENCE

1. Professor of Psychology
University of Miami 1979 to present
2. Associate Professor of Psychology
University of Miami 1974 to 1979
3. Assistant Professor of Psychology
University of Miami 1969 to 1974
4. Faculty Biomedical Engineering Department
University of Miami 1970 to present
5. Member, Laboratory of Quantitative Biology
Department of Biology
University of Miami 1969 to present

D. RESEARCH GRANTS

1. NIH Institutional Grant to the University of Miami: \$10,000 for laboratory equipment.
(1969)
2. NSF Institutional Grant to the University of Miami: \$10,000 for laboratory equipment.
(1969)
3. NIH Grant R01 EY00701: Single cell recordings in cat optic tract; \$40,000.
(1972 - 1974)

Research Grants (continued)

4. NIH Grant R01 EY00701: Single cell recordings in cat optic tract; \$154,000. (1974 - 1977)
5. NIH Grant R01 EY00701: Single cell recordings in cat optic tract; 142,000. (1975 - 1981)

E. PROFESSIONAL INTERESTS

Neural Basis of Behavior, Behavioral Medicine, Electrophysiology of the Cardiovascular System, Psychophysiology of Anxiety, Electrophysiology of the Visual System.

F. ADMINISTRATIVE ACTIVITIES

1. Chairman of Research Committee, Department of Psychology
2. Chairman of Experimental Faculty, Department of Psychology
3. Chairman of Biopsychology Program, Department of Psychology

G. COURSES TAUGHT

Undergraduate

1. Psychology 101: Psychology of Social Science
2. Psychology 102: Psychology as Biological Science
3. Psychology 103: General Principles of Psychology
4. Psychology 402: Physiological Psychology
5. Psychology 403: Techniques in Physiological Psychology
6. Psychology 509: Perception
7. Psychology 481: Stress Management

Graduate

1. Psychology 600: Advanced General Psychology (Biological Foundations)
2. Psychology 614: Sensory Processes
3. Psychology 696: Neuroanatomy
4. Psychology 694: Seminar in Perception
5. Psychology 676: Seminar in Behavioral Medicine: Stress and Stress Management

H. PUBLICATIONS

Teich, A. H., McCabe, P. M., Gentile, C. C., Schneiderman, L. S., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. (in press). Auditory cortex lesions prevent the extinction of Pavlovian differential heart rate conditioning to tonal stimuli in rabbits. Brain Research.

Publications (continued)

- McCabe, P. M., Schneiderman, N., Winters, R. W., Gentile, C. G., & Teich, A. (in press). Learned aspects of cardiovascular regulation. In R. Ader, & A. Baum (Eds.), Perspectives in behavioral medicine, Vol. 6.
- McCabe, P. M., Schneiderman, N., Jarrell, T. W., Gentile, C. G., Teich, A. H., Winters, R. W., & Liskowsky, D. R. (in press). Central pathways involved in differential classical conditioning of heart rate responses. In I. Gormezano, & J. A. Harvey (Eds.), The neural substrates of learning. Hillsdale, NJ: Erlbaum Associates, Inc.
- Bartley, S. H., & Winters, R. W. (1968). Target structure and visual distance. Journal of Psychology, 70, 267-268.
- Winters, R. W. & Johnson, D. M. (1969). Attention and the establishment of a scale of judgment. Journal of Experimental Psychology, 81, 603-605.
- Winters, R. W., & Walters, J. W. (1970). Transient and steady state stimulus-response relationships for cat retinal ganglion cells. Vision Research, 10, 461-477.
- Winters, R. W., & Hamasaki, D. I. (1972). Comparison of LGN and optic tract intensity-response functions. Vision Research, 12, 589-608.
- Hickey, T. L., Winters, R. W. & Pollack, J. G. (1972). Receptive field center and surround interactions in single cat retinal ganglion cells. Brain Research, 43, 250-253.
- Winters, R. W., Pollack, J. G., & Hickey, T. L. (1972). Two types of on-center cells in cat optic tract. Brain Research, 47, 501-505.
- Hamasaki, D. I., & Winters, R. W. (1973). Intensity-response functions of visually deprived LEN neurons of cats. Vision Research, 13, 925-936.
- Winters, R. W., Hickey, T. L., & Pollack, J. G. (1973). Effect of variations of target location upon the peripheral responses of on-center retinal ganglion cells in the cat. Vision Research, 13, 1487-1498.
- Winters, R. W., Hickey, T. L., & Skaer, D. H. (1973). Spatial summation in the receptive field periphery of two types of on-center neurons in cat retina. Vision Research, 13, 1499-1509.
- Hickey, T. L., Winters, R. W., & Pollack, J. G. (1973). Center-surround interactions in two types of on-center retinal ganglion cells in the cat. Vision Research, 13, 1511-1526.
- Winters, R. W. (1974). Some relationships between the psychophysics and neurophysiology of color vision. American Journal of Optometry and Physiological Optics, 51, 550-566.
- Pollack, J. G., & Winters, R. W. (1973). The effect of adaptation level upon the responses of two types of on-center cells in the cat retina. British Journal of Physiological Optics, 28, 175-181.

Publications (continued)

- Hamasaki, D. I., & Winters, R. W. (1974). A review of the properties of transient and sustained retinal ganglion cells. Experientia, 30, 713-719.
- Winters, R. W., & Hamasaki, D. I. (1975). Peripheral inhibition of sustained and transient on-center ganglion cells in cat retina. Experientia, 31, 305-306.
- Winters, R. W., & Hamasaki, D. I. (1976). Temporal characteristics of peripheral inhibition of sustained transient ganglion cells in cat retina. Vision Research, 16, 37-45.
- Pollack, J. G., & Winters, R. W. (1978). A comparison of the strength of lateral inhibition in X and Y cells in the cat retina. Brain Research, 143, 538-543.
- Pollack, J. G., & Winters, R. W. (1978). Effect of adaptation level on maintained firing and sensitivity in receptive field center of X and Y cells. Experientia, 34, 80-81.
- Robertson, T. W., Winters, R. W., Christen, W. G., & Cohen, H. I. (1978). The effect of adapting target location on the gain of the surround mechanisms in cat retinal ganglion cells. Brain Research, 156, 360-363.
- Robertson, T. W., Winters, R. W., Christen, W. G., & Cohen, H. I. (1979). A comparison of on-inhibition and off-excitation measure of the surround response mechanism in cat retinal ganglion cells. Brain Research, 160, 509-513.
- Christen, W. G., Cohen, H. I., Robertson, T. W., & Winters, R. W. (1979). Spatial distribution of the adaptation field of the surround response mechanism of type X cat retinal ganglion cells. Experientia, 35, 1073-1074.
- Christen, W. G., Winters, R. W., Robertson, T. W., & Cohen, H. I. (1979). Effect of adapting target size on the gain of surround response mechanisms in X and Y cells in cat retina. Experientia, 35, 1350-1351.
- Cohen, H. I., Winters, R. W., Hamasaki, D. I. (1980). Responses of X and Y cat retinal ganglion cells to moving stimuli. Experimental Brain Research, 38, 299-303.
- Cohen, H. I., & Winters, R. W. (1981). Lateral spread of adaptation in the receptive field surrounds of cat retinal ganglion cells. Brain Research, 204, 194-199.
- Cohen, H. I., & Winters, R. W. (1981). Spatial summation of signals and adaptation by the surround response mechanism of cat retinal ganglion cells. Experimental Brain Research, 44, 207-212.
- Cohen, H. I., Winters, R. W., & Christen, W. G. (1981). Summing properties of the surround response mechanisms of cat retinal ganglion cells. Experientia, 37, 857-859.
- Cohen, H. I., & Winters, R. W. (1982). Spatial distribution of signal and adaptive sensitivity in the receptive field surrounds of cat retinal ganglion cells. Experientia, 38, 581-583.

Publications (continued)

- Robertson, T. W., Christen, W. G., & Winters, R. W. (1983). Effect of target position and size on adaptive sensitivity of the surround response mechanism of cat retinal ganglion cells. Experientia, 39, 357-358.
- Robertson, T. W., Christen, W. G., & Winters, R. W. (1983). Analysis of the adaptation fields of the surround response mechanism of cat retinal ganglion cells. Experimental Brain Research, 52, 351-362.
- Schrima, L., Hartman, P., Anderson, J., Dandes, H., & Winters, R. (1983). The relationship of blood pressure and heart rate to narcolepsy and cataplexy. Sleep Research, 12, 231-236.
- Robertson, T. W., Christen, W. G., & Winters, R. W. (1985). Adaptive sensitivity of the surround mechanism of cat retinal ganglion cells. Experimental Brain Research, 54, 449-454.
- Cohen, H. I., Winters, R. W., Robertson, T. W., & Christen, W. G. (1985). Comparison of signal and adaptive sensitivity profiles of the surround mechanism of cat retinal ganglion cells. Experimental Neurology, 87.

I. CHAPTERS

- McCabe, P. M., Schneiderman, N., Jarrell, T. W., Gentile, C. G., Teich, A. H., Winters, R. W., & Liskowsky, D. R. (in press). Central pathways involved in classical differential conditioning of heart rate responses in rabbits.
- Winters, R. W., (1974). Single cell coding in sensory systems. In J. Kline (Ed.), Unified Systems Approach to the Medical Sciences for Biomedical Engineers. Cambridge, MA: Little Brown.
- Winters, R. W., & Anderson, J. B. (1985). Biological basis of behavior. In N. Schneiderman, & J. Tapp (Eds.), Behavioral medicine: A biopsychosocial approach. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Winters, R. W. (1985). Behavioral approaches to pain. In N. Schneiderman, & J. Tapp (Eds.), Behavioral medicine: A biopsychosocial approach. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Winters, R. W. (1985). Stress, arousal and sleep. In T. Field, N. Schneiderman, & P. M. McCabe (Eds.), Stress and coping. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

J. ABSTRACTS

- Winters, R. W., & Walters, J. W. (1970). Intensity coding in single optic tract fibers in the cat. Presented at the annual meeting of the Association for Research in Vision and Ophthalmology, Sarasota.

Abstracts (continued)

- Winters, R. W., & Hamsaski, D. I. (1970). Comparison of intensity response relationships for cat optic tract and lateral geniculate neurons. Presented at the annual meeting of the Optical Society of America, Hollywood, Florida.
- Winters, R. W., & Hamasaki, D. I. (1970). Intensity-response relationships for lateral geniculate neurons of the cat. Presented at the annual meeting of the American Academy of Optometry, Miami Beach, Florida.
- Winters, R. W., & Hamasaki, D. I. (1971). Transformation of luminance information in cat lateral geniculate nucleus. Presented at the annual meeting of the Association for Research in Vision and Ophthalmology, Sarasota.
- Winters, R. W., Hickey, T. L., & Skaer, D. H. (1972). Characteristics of surround responses in single retinal ganglion cells in the cat. Presented at the annual meeting of the Association for Research in Vision and Ophthalmology, Sarasota.
- Winters, R. W., & Hamasaki, D. I. (1975). Temporal properties of surround inhibition in X and Y retinal ganglion cells in the cat. Presented at the annual meeting of Neurosciences Society, New York.
- Pollack, J. G., & Winters, R. W. (1975). Quantitative characteristics of lateral inhibition in transient and sustained retinal ganglion cells in cat. Annual meeting of Neurosciences Society, New York, November.
- Christen, W., & Winters, R. W. (1976). Spatial distribution of surround inhibition in X cells in cat retina. Annual meeting of the Association for Research in Vision and Ophthalmology.
- Cohen, H., Winters, R. W., & Hamasaki, D. I. (1977). Response of Type X and Type Y cells to moving targets. Annual meeting of the Association for Research in Vision and Ophthalmology.
- Christen, W., Winters, R. W., Robertson, T. W., & Cohen, H. (1978). Adaptation field of the surround mechanism in X and Y cells in cat retina. Annual meeting of the Association for Research in Vision and Ophthalmology.
- Robertson, T. W., Winters, R. W., Christen, W., & Cohen, H. (1979). Comparison of two response measures of surround inhibition in X and Y cells in cat retina. Annual meeting of the Society for Neuroscience.
- Schrima, L., Hartman, P., & Winters, R. (1984). Cataplexy related to blood pressure and heart rate. Annual meeting of the Society for Neuroscience.

K. REFERENCES

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4. Dr. Herbert Quay, Chairman
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VITA OF PHILIP M. McCABE

TITLE: Assistant Professor of Psychology

DATE OF BIRTH: October 6, 1953

EDUCATIONAL HISTORY:

B.S.: University of Illinois, August, 1975
Major: Psychology

Ph.D.: University of Illinois, January, 1982
Neural and Behavioral Biology
Dissertation title: The Respiratory-Heart Rate Interaction: Quantification
and Physiological Mechanisms

PROFESSIONAL HISTORY:

1987-present University of Miami Neuroscience Program; University-wide
Interdepartmental program

1986-present Advisory Committee, NHLBI Program Project HL36588-01,
"Psychophysiology of Cardiovascular Reactivity," Department of
Psychology, University of Miami

1982-present Assistant Professor of Psychology, Behavioral Medicine Program,
University of Miami

1982 Post Doctoral Fellow, National Institute of Health, National Heart, Lung
and Blood Institute Traineeship, Behavioral Medicine Training Grant,
University of Miami

1980-1981 Teaching Assistant, Laboratory course in Psychophysiology,
University of Illinois

1977-1980 Trainee, National Institute of Mental Health Traineeship,
Psychophysiology Training Grant, University of Illinois

1976-1977 Research Assistant, to Dr. Stephen W. Porges, University of Illinois

SCHOLARSHIPS AND APPOINTMENTS:

1987-present University of Miami, Animal Research Committee

1987-present Ad Hoc Advisor, Department of Defense, Universal Energy Systems

1986-present Ad Hoc Advisor, Veterans Administration

1985-present Ad Hoc Advisor, National Science Foundation

1987-present University of Miami, Graduate Council Curriculum Committee (Group IV)

1982 National Heart, Lung and Blood Institute Post-Doctoral Fellowship,
"Behavioral Medicine and Cardiovascular Disease"

Scholarships and Appointments (continued)

1977-1979 National Institute of Mental Health Trainee

EDITORIAL CONSULTANT:

Psychophysiology
Health Psychology
Physiology and Behavior
Physiological Psychology
Behavioral Neuroscience
Behavioral Brain Research
Journal of Experimental Psychology:
Animal Behavior Processes

TEACHING:

University of Miami:

Undergraduate Courses: Psychology 102 - Biological Bases of Behavior
 Psychology 402 - Psychobiology
 Psychology 403 - Laboratory in Psychobiology

Graduate Courses: Psychology 600 - Psychobiology
 Psychology 659 - Psychophysiology
 Psychology 676 - Seminar in Hypertension
 Biomedical Engineering 502 - Neurophysiology for
 Biomedical Engineers

Medical School Courses: Stress Section, 1st year Endocrinology Course
 Dr. Andrew Taylor, Instructor

PROFESSIONAL SOCIETIES:

Society for Psychophysiological Research
Society for Neuroscience
American Association for the Advancement of Science
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GRANT ACTIVITY:

Active Support:

National Institute of Health, NHLBI Program Project (HL-36588-01)
"Psychophysiology of Cardiovascular Reactivity"
Project 4: "CNS Modulation of Sympathetic Reactivity in Rabbits"
Annual Direct Costs: \$129,878, 7/86 - 6/91
Project Leader, Philip M. McCabe, 40% Effort
P.I., Neil Schneiderman

Grant Activity (continued)

National Institute of Health, NINCDS Program Project (NS-05820-20)
"Plasticity and Recovery from Cerebral Ischemia"
Annual Direct Costs: \$80,000, 8/85 - 7/90
Co-P.I., Philip M. McCabe, 20% Effort
Project Leader, W. Dalton Dietrich, Department of Neurology

National Institute of Health, NINCDS Program Project (NS-05820-20)
"CNS Mediation of Cerebral Ischemic Response"
Annual Direct Costs: \$26,000 8/85 - 7/87
Co-P.I., Philip M. McCabe, 10% Effort
Project Leader, Neil Schneiderman

Pending:

National Institute of Health, NINCDS (NS-24874-01)
"CNS Mediation of Differentially Conditioned Heart Rate Responses"
Proposed Annual Direct Costs: \$65,037, 2/88 - 1/91
P.I., Philip M. McCabe, 25% Effort

PAST SUPPORT:

NIH-BRSG, Biomedical Support Grant, University of Miami,
"Neural Substrates of Sympathetic Reactivity"
\$16,722, 1987
CO-P.I., Philip M. McCabe

NIH-BRSG, Biomedical Support Grant, University of Miami,
"Salt-Stress Hypertension in Rats"
\$3,918, 1985
P.I., Philip M. McCabe

NIH-BRSG, Biomedical Support Grant, University of Miami,
"Central Respiratory-Cardiovascular Interactions"
\$5,000, 1983
P.I., Philip M. McCabe

PUBLICATIONS:

Jarrell, T. W., Gentile, C. G., Romanski, L. M., McCabe, P. M., & Schneiderman, N. (1987). Involvement of cortical and thalamic auditory regions in retention of differential bradycardia conditioning to acoustic conditioned stimuli in rabbits. Brain Research, 412, 285-294.

Jarrell, T. W., Gentile, C. G., McCabe, P. M., & Schneiderman, N. (1986). Sinoaortic denervation does not prevent differential Pavlovian conditioning of bradycardia in rabbits. Brain Research, 381, 251-258.

Publications (continued)

- Gentile, C. G., Jarrell, T. W., Teich, A., McCabe, P. M., & Schneiderman, N. (1986). The role of amygdaloid central nucleus in the retention of differential conditioning of bradycardia in rabbits. Behavioral Brain Research, 20, 263-273.
- Jarrell, T. W., Romanski, L. M., Gentile, C. G., McCabe, P. M., & Schneiderman, N. (1986). Ibotenic acid lesions in the medial geniculate region prevent the acquisition of differential Pavlovian conditioning of bradycardia to acoustic stimuli in rabbits. Brain Research, 382, 199-203.
- Jarrell, T. W., McCabe, P. M., Teich, A., Gentile, C. G., VanDercar, D., & Schneiderman, N. (1986). Lateral subthalamic area as a mediator of classically conditioned bradycardia in rabbits. Behavioral Neuroscience, 100, 3-10.
- Jarrell, T. W., Gentile, C. G., McCabe, P. M., & Schneiderman, N. (1986). The role of medial geniculate region in differential Pavlovian conditioning of bradycardia in rabbits. Brain Research, 374, 126-136.
- McCabe, P. M., Schneiderman, N., Winters, R. W., Gentile, C. G., & Teich, A. (in press). Learned aspects of cardiovascular regulation. In R. Ader, & A. Baum (Eds.), Perspectives in behavioral medicine, Vol. 6. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.
- McCabe, P. M., Schneiderman, N., Jarrell, T. W., Gentile, C. G., Teich, A. H., Winters, R. W., & Liskowsky, D. R. (in press). Central pathways involved in differential classical conditioning of heart rate responses. In I. Gormezano, & J. A. Harvey (Eds.) The neural substrates of learning. Hillsdale, NJ: Erlbaum.
- Schneiderman, N., & McCabe, P. M. (in press). Psychophysiological strategies in laboratory research. In N. Schneiderman, P. Kaufmann, & S. Weiss (Eds.), Handbook of research methods in cardiovascular behavioral medicine. Plenum: New York.
- Schneiderman, N., Ironson, G., & McCabe, P. N. (in press). Physiology of behavior and blood pressure regulation in humans. In W. H. Birkenhager & J. L. Reid (Chief Eds.), S. Julius (Volume Ed.), Handbook of hypertension, Volum 10: Behavioral factors in hypertension. Elsevier: Amsterdam.
- Field, T., McCabe, P. M., & Schneiderman, N. (Eds.). Stress and coping over development. Hillsdale, NJ: Erlbaum, in press.
- Schneiderman, N., McCabe, P. M., Haselton, J. R., Ellenberger, H. H., Jarrell, T. W., & Gentile, C. G. (1986). The neurobiological bases of conditioned bradycardia in rabbits. In R. F. Thompson, W. R. Prokasy, & I. Gormezano (Eds.), Classical conditioning III: Neurophysiology and behavior of the rabbit. Hillsdale, NJ: Erlbaum, Inc.
- Haselton, J. R., Haselton, C. L., Vera, P. L., Ellenberger, H. H., Schneiderman, N., & McCabe, P. M. (1985). Nucleus reticularis lateralis mediates the pressor component of the cerebral ischemic response. Brain Research, 335, 315-320.

Publications (continued)

- McCabe, P. M., Yongue, B. G., Ackles, P. K., & Porges, S. W. (1985). Changes in heart period, heart rate variability and respiratory sinus arrhythmia as a result of pharmacological manipulations of the baroreflex in cats. Psychophysiology, 22, 195-203.
- McCabe, P. M. & Schneiderman, N. (1985). Psychophysiological reactions to stress. In N. Schneiderman & J. T. Tapp (Eds.), Behavioral Medicine: The biopsychosocial approach. Hillsdale, N.J.: Erlbaum, Inc.
- Schneiderman, N., & McCabe, P. M. (1985). Biobehavioral responses to stressors. In T. Field, P. M. McCabe, & N. Schneiderman (Eds.), Stress and coping. Hillsdale, NJ: Erlbaum.
- Field, T., McCabe, P. M., & Schneiderman, N. (Eds.). Stress and coping. Hillsdale, NJ: Erlbaum, 1985.
- McCabe, P. M., Yongue, B. G., Porges, S. W., & Ackles, P. K. (1984). Changes in heart period, heart-period variability, and a spectral analysis estimate of respiratory sinus arrhythmia during aortic nerve stimulation in rabbits. Psychophysiology, 21, 149-158.
- Schneiderman, N., McCabe, P. M., & Hausman, K. A. (1984). Neurogenic influences upon the heart. In A. Herd & S. M. Weiss, Cardiovascular instrumentation: Applicability of new technology to biobehavioral research. DHHS publication (NIH).
- Yongue, B. G., McCabe, P. M., Porges, S. W., Rivera, M. E., Kelley, S. L., & Ackles, P. K. (1982). The effects of pharmacological manipulations that influence vagal control of the heart on heart period, heart-period variability, and respiration in rats. Psychophysiology, 19, 426-432.
- Porges, S. W., McCabe, P. M., & Yongue, B. G. (1982). Respiratory-heart rate interactions: Psychophysiological implications for pathophysiology and behavior. In J. T. Cacioppo & R. E. Petty (Eds.), Focus on Cardiovascular Psychophysiology. New York: Guilford Press.
- McCabe, P. M., Porges, S. W., & Carter, C. S. (1981). Heart period variability during estrogen exposure and withdrawal in female rats. Physiology and Behavior, 26, 535-538.
- Porges, S. W., Bohrer, R. E., Cheung, M. s., Dragow, F., McCabe, P. M., & Keren, G. (1980). New time-series statistic for detecting rhythmic co-occurrence in the frequency domain: The weighted coherence and its application to psychophysiological research. Psychological Bulletin, 88, 580-587.

Submitted for Publication

- Haselton, J. R., Winters, R. W., Haselton, C. L., McCabe, P. M., & Schneiderman, N. Cardiovascular responses elicited by electrical and chemical stimulation of the rostral medullary raphe of the rabbit. Brain Research.

Submitted for Publication (continued)

- Haselton, J. R., Winters, R. W., Haselton, C. L., McCabe, P. M., & Schneiderman, N. Afferent and efferent functional connections of the rostral medullary raphe in the rabbit. Brain Research.
- Teich, A. H., McCabe, P. M., Gentile, C. G., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. Auditory cortex lesions disrupt acquisition of differential bradycardiac conditioning to tonal stimuli in rabbits. Brain Research.
- Teich, A. H., McCabe, P. M., Gentile, C. G., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. The role of auditory cortex in extinction of classically conditioned heart rate responses in rabbits. Brain Research.
- Gentile, C. G., Teich, A. H., McCabe, P. M., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. Ibotenic acid lesions in amygdaloid central nucleus prevent the acquisition of differentially conditioned bradycardiac responses in rabbits. Brain Research.
- Laperriere, A. R., VanDercar, D. H., Shyu, L. Y., Ward, M. F., McCabe, P. M., Perry, A. C., Mosher, P. E., & Schneiderman, N. Microcomputer servo-controlled bicycle ergometer system for psychophysiological research. Psychophysiology.
- VanDercar, D. H., Laperriere, A. R., Shyu, L. Y., Ward, M. F., McCabe, P. M., Perry, A. C., & Schneiderman, N. Microcomputer automated system for measuring systolic time intervals in response to exercise and a psychophysiological task. Psychophysiology.

Abstracts and Papers Presented

- Teich, A. H., McCabe, P. M., Gentile, C. G., Winters, R. W., Liskowsky, D. R., & Schneiderman, N. (1987). Auditory cortex lesions disrupt differential bradycardiac conditioning to tonal stimuli in rabbits. Society for Neuroscience Abstracts, 13.
- Liskowsky, D. R., Winters, R. W., McCabe, P. M., & Schneiderman, N. (1987). Connections between cardiovascularly related areas in the hypothalamus and the periaqueductal gray region in rabbits. Society for Neuroscience Abstracts, 13.
- Vera, P. L., Liskowsky, D. R., McCabe, P. M., & Schneiderman, N. (1987) Serotonergic- and noradrenergic-like immunoreactive terminals in the thoracic intermediate grey matter of the rabbit project to retrogradely identified sympathetic preganglionic neurons. Society for Neuroscience Abstracts, 13.
- Hurwitz, B. E., Dietrich, W. D., McCabe, P. M., Watson, B. D., & Schneiderman, N. (1987). CNS plasticity and behavioral deficit following photochemical infarction of the whisker cortical barrel-fields. Society for Neuroscience Abstracts, 13.
- Laperriere, A. R., VanDercar, D. H., Shyu, L. Y., Ward, M. F., McCabe, P. M., Perry, A. C., Mosher, P. E., & Schneiderman, N. (1987). Microcomputer servo-controlled bicycle ergometer system for behavioral medicine research. Society of Behavioral Medicine Meetings, Washington, DC.

Abstracts and Papers Presented (continued)

- Vera, P. L., Ellenberger, H. H., Haselton, J. R., Haselton, C. L., McCabe, P. M., & Schneiderman, N. (1986). Brainstem projections to phrenic nucleus in rabbits and cats. FASEB Abstracts.
- Jarrell, T., Gentile, C., McCabe, P. M., & Schneiderman, N. (1986). Afferent barosensory input is not necessary for acquisition of differential Pavlovian conditioning of bradycardia in rabbits. FASEB Abstracts.
- Weintraub, J. K., Carver, C. S., McCabe, P. M., Spitzer, S., & Schneiderman, N. (1986). Anger, hostility, and reactivity in the Miami Hypertension Project. Society of Behavioral Medicine Meetings, San Francisco.
- Tischenkel, N., Schneiderman, N., Nelesen, R., Vorp, R., Gellman, M., Gerace, T., & McCabe, P. M. (1986). Cardiovascular and neurohormonal baselines and reactivity in the Miami Hypertension Project. Society of Behavioral Medicine Meetings, San Francisco, CA.
- Schneiderman, N., & McCabe, P. M. (1986). Psychophysiologic strategies in laboratory research. NHLBI Conference on methods and measurement in cardiovascular behavioral medicine, Key Biscayne, FL.
- Jarrell, T. W., Gentile, C. G., Romanski, L. M., Rose, B. J., McCabe, P. M., & Schneiderman, N. (1986). The role of cortical and thalamic auditory regions in differential bradycardiac conditioning to acoustic stimuli in rabbits. Society of Neuroscience Abstracts, 12.
- Romanski, L. M., Jarrell, T. W., Gentile, C. G., McCabe, P. M., & Schneiderman, N. (1986). Destruction of intrinsic neurons in the medial geniculate nucleus prevents the acquisition of differential Pavlovian conditioning of bradycardia in rabbits. Society of Neuroscience Abstracts, 12.
- Gentile, C. G., Romanski, L. M., Jarrell, T. W., McCabe, P. M., & Schneiderman, N. (1986). Ibotenic acid lesions in amygdaloid central nucleus prevent the acquisition of differentially conditioned bradycardia responses in rabbits. Society of Neuroscience Abstracts, 12.
- Hurwitz, B. E., Dietrich, L. D., McCabe, P. M., Watson, B. D., & Schneiderman, N. (1986). Behavioral consequences of photochemically induced cortical whisker barrel-field infarction. Society of Neuroscience Abstracts, 12.
- Jarrell, T. W., Gentile, C. G., McCabe, P. M., & Schneiderman, N. (1985). Medial geniculate nucleus as mediator of differentially conditioned bradycardia in rabbits. Society for Neuroscience Abstracts, 11.
- Gentile, C. G., Jarrell, T. W., Teich, A., McCabe, P. M., & Schneiderman, N. (1985). Amygdala central nucleus as mediator of differentially conditioned bradycardia in rabbits. Society for Neuroscience Abstracts, 11.

Abstracts (continued)

- McCabe, P. M. Neurobiological bases of differentially conditioned heart rate responses in rabbits. Symposium presentation at the Psychonomic Society meetings, Boston, November 23, 1985.
- McCabe, P. M. Biobehavioral bases of hypertension. Symposium presentation at the Miami Symposium on Stress and Coping, Miami, February 19, 1985.
- Le Blanc, W. G., McCabe, P. M., Haselton, J., Haselton, C. L., Ellenberger, H. H., & Schneiderman, N. Role of the ventrolateral medulla in the control of the cerebral ischemic response in rabbits. Society for Neuroscience Abstracts, 1983, 9.
- McCabe, P. M. The neurobiological basis of conditioned bradycardia: Efferent pathways. Symposium presentation at the Pavlovian Society annual meetings, St. Petersburg, November 18, 1982.
- Haselton, J. R., Ellenberger, H. H., McCabe, P. M., & Schneiderman, N. Central control of the cardiovascular and respiratory components of the cerebral ischemic response (CIR). Society for Neuroscience Abstracts, 1982, 8.
- Yongue, B. G., McCabe, P. M., Kelley, S. L., Rivera, P., & Porges, S. W. Changes in respiratory modulate component of heart period variability as a result of pharmacological manipulations of vagal tone in rats. Paper presented at Society for Psychophysiological Research, Vancouver, 1980.
- McCabe, P. M., Porges, S. W., & Yongue, B. G. Spectral analysis of heart rate during depressor nerve stimulation: The validation of a non-invasive estimate of vagal tone. Society for Neuroscience Abstracts, 1979, 5, 156.
- Yongue, B. G., Porges, S. W., & McCabe, P. M. Changes in vagal control of the heart following signalled and unsignalled shock. Paper presented at Society for Psychophysiological Research, Cincinnati, 1979.
- McCabe, P. M., Porges, S. W., & Yongue, B. G. The validation of a non-invasive measure of vagal influences on the heart. Paper presented at Society for Psychophysiological Research, Cincinnati, 1979.
- Greenough, W. T., Carter, C. S., Ackerman, T., Reeder, R., Mateer, J., Reeder, T., Lyerla, E., Bohnsak, M., McCabe, P. M., Suits, C., & DeBoogd, T. Sexual dimorphism in dendritic pattern in basal forebrain regions of intact adult hamsters. Society for Neuroscience Abstracts, 1977, 3, 345.