UNIVERSITY OF
Miami
FACULTY SENATE

MEMORANDUM

6/4/92

Bill,
I approve.
Thanks.

TO: President Edward T. Foote II

FROM: William J. Whelan
Chairman, Faculty Senate

DATE: June 1, 1992

SUBJECT: Faculty Senate Legislation #91017(B) - Ph.D. Degree in Neuroscience

At its meeting of April 27, 1992, and as a result of a second reading, the Faculty Senate gave its approval to the creation of the interdisciplinary program for a Ph.D. degree in Neuroscience.

It was noted that since this is a non-departmentalized program, the Steering Committee, as an "identifiable faculty group not otherwise associated with a school" will require the "award of some or all of the powers and duties assigned to departmental or school faculties". Here I quote from the Faculty Government Charter, Section 5.7, in respect of the fact that the Steering Committee, not being specifically associated with a school, will require authorization to recommend the award of the Ph.D. degree.

The Senate, at an early opportunity, intends to enact a bylaw for this purpose which will be sent to you for approval. It considers that the most appropriate solution may be the enactment of a generic bylaw to cover such situations for the future, whereby the Graduate School could absorb all Ph.D. degree programs and avoid the need to have them approved by individual participating schools. That will have to be a matter for further consideration, but does raise a second aspect of the incomplete implementation of the program. This is the intention to include faculty of the College of Arts and Sciences. This will require a positive vote of the faculty of the College. Such approval has already been given for the participation of faculty of the School of Medicine and RSMAS. The text of the legislation is attached.

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

This legislation is now forwarded to you for your action.

WJW/b

Attachment

cc: Provost Luis Glaser
Associate Dean Hecker, Graduate School
Dean Bernard Fogel, School of Medicine
Dean Ross Murfin, College of Arts and Sciences
Dean Bruce Rosendahl, RSMAS
Dr. Robert Warren, Chair, Ad Hoc Review Committee
Dr. Kenneth Muller, Director

CAPSULE: Faculty Senate Legislation #91017(B) -
Ph.D. Degree in Neuroscience

RESPONSE BY THE PRESIDENT: DATE: 6/4/92

APPROVED: Yes

OFFICE OR INDIVIDUAL TO IMPLEMENT OR PUBLISH: Provost

EFFECTIVE DATE OF LEGISLATION: _____

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

Faculty Senate Action #91017

Class B Legislation

At its meeting on April 27, 1992, the Faculty Senate approved a Doctor of Philosophy (Ph.D.) degree in Neuroscience with the joint and formal participation of the Faculty of the School of Medicine, and the Rosenstiel School of Marine and Atmospheric Sciences, together acting through the Graduate School, subject to the following conditions:

1. That this program is the successor to, and replacement for, the current Neuroscience program offered through the participating basic science departments of the School of Medicine.

2. That all members of the program shall be members of the Graduate Faculty.

3. That this approval, in accord with Graduate Council and Senate policies, is provisional, requiring a formal review during the third year following approval.

[This review is due by Spring, 1995. Senate action, following a recommendation from the Graduate Council, is required to remove the provisional nature of this approval. Failure to complete the review, or an unsatisfactory review, shall automatically suspend admission to the program.]

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE

May 3, 1995

Dr. Tarek Khalil, Dean
The Graduate School
Ferre 210
University of Miami

Dear Dr. Khalil,

The graduate Neuroscience Program was established through Faculty Senate Action #91017, which stipulated that a review of the program was due by the end of the spring semester of this year. Accordingly, I am writing to describe the progress of the Neuroscience Program, focusing on the last 3 years during which it has been an independent degree-granting program. I think you will see that the program has been highly successful in training an outstanding group of students while it has brought together faculty from departments at all three campuses with a common interest in neuroscience.

I hope that it will be possible for the Graduate Council to review the Program at its May 10 meeting, which I plan to attend. Please let me know if you need additional information before then.

Sincerely,

Kenneth J. Muller
Professor of Physiology and
Biophysics
Chairman, Neuroscience Program
Steering Committee

Neuroscience Program (R-50)
P.O. Box 016430
Location: Rosenstiel Medical Science Building
1600 N.W. 10th Avenue
Miami, Florida 33136
Tele/Fax 305-547-3368

Report on the Neuroscience Program, 1992-1995

The Neuroscience Program, whose members are drawn from all three major campuses of the University of Miami, was established in 1992 as an organization capable of granting the Ph.D. degree in Neuroscience. For several years prior to 1992 the program had existed in conjunction with departments authorized to grant graduate degrees; however, the establishment of the new program formalized the basis and administration of the independent program. An important document that accompanies this report is the Neuroscience Program brochure, which is updated several times a year. This document details the program's administration, faculty membership, student enrollment, curriculum, policy on student progress, and research interests of existing faculty.

Administration. As described in the brochure, a steering committee of 8 faculty, including its chair Kenneth Muller, guides the program and sets policy within the guidelines established by the program's charter. Members of the steering committee are elected as representatives of faculty units, roughly equal in size, within the program. A half-time assistant/secretary, currently Ms. Carla Johnson, helps with the administration of the program, which is done on a day to day basis by the chair.

The Steering Committee. The Steering Committee is currently comprised of the following members: Richard Rotundo (Cell Biology and Anatomy, Molecular Biology and Biochemistry, and Immunology and Microbiology), John Bixby (Molecular and Cellular Pharmacology), Lincoln Potter (Molecular and Cellular Pharmacology), Robert Keane (Physiology and Biophysics), Kenneth Muller (Physiology and Biophysics), Philip McCabe (Coral Gables and Marine School (RSMAS) campuses), Mary Bunge (clinical departments, including Neurology, Neurosurgery, Ophthalmology, Otolaryngology, Pathology and Psychiatry) and Myron Rosenthal (clinical departments, including Neurology, Neurosurgery, Ophthalmology, Otolaryngology, Pathology and Psychiatry). On average, 2 members change each year, thus in 1993 Robert Keane replaced Ellen Barrett and Philip McCabe replaced Neil Schneiderman, and in 1994 John Bixby replaced David Adams and Myron Rosenthal replaced Robert Davidoff. Among the standing committees of the program are the Admissions Committee, Recruiting Committee, Curriculum Committee, and Seminar Committee, each headed by a Steering Committee member. The minutes of the monthly meetings of the steering committee are distributed to the program faculty and students in a timely fashion after approval by the committee.

Budget. The budget of the program is presently administered through the Department of Physiology and Biophysics, which provides space for the Neuroscience Program office and desk space for students in their first two years of study, before they enter the laboratory of a mentor. An annual operating budget of $30,000 per year is used to cover all expenses except stipends, but includes salary for the half-time assistant, costs of printing and distributing posters and brochures, other office expenses, recruiting including transportation and hotel for prospective students, membership in the Association of Neuroscience Departments and Programs, and incidental expenses related to gatherings of students with faculty and visiting lecturers. In addition, the Neuroscience Program has received stipends for 4 to 5 students from the Dean of the School of Medicine, permitting it to accept at least 2

to 3 students per year. Individual fellowships from outside the University awarded to four students have enabled more than that number to matriculate, as detailed below. A long-range goal is to compete successfully for support through an NIH training grant; however, it is the opinion of program faculty with experience on training grant study sections that an excellent record of longer standing is required before such a grant should be sought.

Students. The Neuroscience Program graduated its first two Ph.D.'s, Alan Levi and Thomas Morrissey, in 1994. It is anticipated that Lamya Shihabuddin will defend her dissertation this summer. Students currently in the program are listed in Table 1. This table lists all students who have entered, including their GRE scores, cumulative GPAs, and faculty advisors. We are still in the process of accepting students for the fall term. Table 2 is a listing of applicants to the program with their GPAs and performance. Prior to enrollment for the 94/1 term, applications were directed to individual departments. The statistics for the separate Neuroscience program have not been compiled in the office of graduate studies for students applying prior to this date. Only general information is therefore provided for the earlier years. An additional source of students in the last 3 years has been the MD/PhD program in the School of Medicine, headed by Dr. Richard Bookman. These highly qualified students are not included in the pool of applicants listed in Table 2.

Four students have applied for and received nationally competitive fellowships that provide stipend and tuition support. These individuals are Ana Jimenez (NIH MARC fellow), Alan Levi (Canadian Government fellowship), James Guest (fellowship from the American College of Neurosurgeons), and Bhavya Trivedi (Howard Hughes Medical Institute Graduate Fellowship).

A set of guidelines has been established to aid students in their progress through the program. These are designed to reinforce guidelines established by the Graduate School and are included with this report. Students meet every other month as a group with the program director and, in alternate months, with other steering committee members to discuss student concerns, program plans and policy, and neuroscience.

Courses. Neuroscience Program faculty members teach students in a series of courses described in detail in the attached program brochure and in the current Graduate Bulletin; some courses are shared with participating departments. Students also participate in a weekly Neuroscience Journal Club and are required to attend selected seminars, including those in Research Ethics in the program run by Dr. Kenneth Goodman. A subcommittee of the Steering Committee develops and plans new courses and evaluates those that are established.

Faculty. The program faculty and the means for choosing them are detailed in the Program brochure. The number of faculty in the program and their distribution across departments have changed little in the last 3 years. A few faculty have left the University or, in one case, elected to resign because of a shift in research directions, but others have

joined, including some faculty newly arrived at the University and some at the University for some time but only recently involved with neuroscience research.

Questions raised during the initial review. When Drs. Mary E. Hatten and John G. Hildebrand reviewed the original Neuroscience Program proposal, they made a number of suggestions that have guided the Program during the last 3 years. Developments concerning these are enumerated in this paragraph. (1) Dr. Ken Muller has acted as "founding Director" and Chairman of the Steering Committee, following several years of able leadership by Dr. Richard Rotundo who directed the department-linked program. (2) Major efforts have been made to stimulate and unify interest in neuroscience at the University by the wide and frequent distribution through Email and FAX to nearly two hundred faculty and many students of seminar notices and announcements of meetings and socials. (3) Potential faculty members have been approached and every effort has been made to encourage participation in the program at all three major campuses of the University. (4) Requirements and regulations have been formalized and gathered in a booklet and guidelines distributed to all program faculty and students and to others who request them (see attachments). (5) The Program, with its limited budget, has rarely invited speakers independently of associated academic departments; however, the Provost has recently offered to help us reinstate a vigorous seminar schedule which will present visiting speakers, in addition to regular program faculty, on a monthly basis. (6) A number of mechanisms are in place for recruiting highly qualified students. The program has twice mailed thousands of copies of an attractive poster developed by a committee of the Steering Committee which have added to the program's visibility among potential applicants. A full description of the program as presented in the brochure is now available through the World Wide Web computer network. (7) The task of faculty review is made easier by the requirement that program members also be members of the graduate faculty. In addition, the requirement that all but entering assistant professors receive grants at a national level requires periodic review of the faculty, so that faculty who are unfunded for 5 consecutive years are reviewed by the Steering Committee. (8) One area of concern by the reviewers, that home departments might not recognize faculty participation in the program, has apparently not been a problem, but it is not precluded from becoming an issue in the future. It is worth considering what might be done to ensure that participation in interdisciplinary programs be encouraged by university policy.

Conclusions. In sum, at the end of three years as an independent degree-granting entity, the graduate Neuroscience Program has been highly successful in attracting and training excellent students, attracting and retaining leading faculty and promoting neuroscience at the University of Miami. Although in the long run it will be important for the Program to obtain major support outside the University, at present the funding provided by the Provost and the Dean of the School of Medicine has been instrumental in ensuring our success. There is a warm spirit of collegiality which has developed among the Program faculty, including the members of the steering committee, and it is hoped that the Graduate School Council and Faculty Senate vote to retain the Neuroscience Program.

TABLE 1 - NEUROSCIENCE PROGRAM STUDENTS

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE
ENROLLED, WITHDRAWN, GRADUATED

NAME	SEX	SCHOOL	GPA	GRE V	GRE Q	STATUS	ENROLLED	ADVISOR
** 89/2								
MORRISSEY, THOMAS KERRY	M	UNIVER. OF FLORIDA	3.030	0	0	G	89/2	R.Bunge
** 91/1								
RIND, HOWARD B.	M	ST. UNIV. OF N.Y.	3.220	530	680	E	91/1	Whittemore
SHIHABUDDIN, LAMYA S.	F	AMER. UNIV. BEIRUT	3.700	500	730	E	91/1	M. Bunge
** 91/2								
PABLO, JOHN PASTOR	M	WAYNE STATE UNIV.	3.320	530	610	E	91/2	Mash
** 92/1								
LEVI, ALLAN DAVID	M	UNIV. OF OTTAWA	3.250			G	92/1	R. Bunge
** 93/1								
ALEXIS, NANCY E.	F	DREXEL UNIVERSITY	3.925	580	730	E	93/1	Dietrich
GALAGAN, JAMES EDWARD	M	UNIV. OF CALIFORNIA	3.176	740	730	L	93/1	Left prog. for MIT
** 94/1								
CASTRO, MARCIA	F	ROLLINS COLLEGE FL	3.240	540	690	E	94/1	M.Bunge
GUEST, JAMES DAVID	M	UNIV. OF ALBERTA	0.000			E	94/1	R. Bunge
JIMENEZ-FERNANDEZ, ANA M.	F	BARRY UNIVERSITY	3.890	490	530	E	94/1	Martin
TRIVEDI, BHAVYA	M	UNIVERSITY OF MIAMI	3.940	680	800	E	94/1	(this and the following students are still doing laboratory rotations.)
** 95/1								
BELMONT, HEATHER	F	ITHACA COLLEGE	3.700	480	530	E	95/1	
ROBINSON, MICHELLE LYNN	F	TUFTS UNIVERSITY	3.660			E	95/1	
TALBOT, JANET D	F	LOUISIANA STATE UNIV	2.600	590	710	E	95/1	
WATT, VICTORIA	F	UNIVERSITY OF MIAMI	3.600			E	95/1	
** 95/2								
BACCUS, STEPHEN	M	NEW YORK UNIVERSITY	3.480	730	790	E	95/2	

TABLE 2 - NEUROSCIENCE PROGRAM STUDENT APPLICANTS

For the year of 92/1
14 Applicants (3 Females and 11 Males)

For the year of 93/1
9 Applicants (4 Females and 5 Males)

For the year of 93/2
19 Applicants (8 Females and 11 Males)

For the year of 94/1
42 Applicants (8 Females and 34 Males)

For the year of 94/2
1 Applicant (1 Male)

For the year of 95/1
69 Applicants (12 Females and 57 Males)

For the year of 95/2
2 Applicants (2 Males)

For the year of 96/1
94 Applicants (41 Females and 53 Males)

TABLE 2 - NEUROSCIENCE PROGRAM STUDENT APPLICANTS (CONTINUED)

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE
NEUROSCIENCE PROGRAM
ALL APPLICANTS

NAME	SEX	SCHOOL	GPA	GRE V	GRE Q	STATUS	ENROLLED
** 89/2							
MORRISSEY, THOMAS KERRY	M	UNIVER. OF FLORIDA	3.030	0	0	G	89/2
** 91/1							
RIND, HOWARD B.	M	ST. UNIV. OF N.Y.	3.220	530	680	E	91/1
SHIHABUDDIN, LAMYA S.	F	AMER. UNIV. BEIRUT	3.700	500	730	E	91/1
** 91/2							
PABLO, JOHN PASTOR	M	WAYNE STATE UNIV.	3.320	530	610	E	91/2
** 92/1							
LEVI, ALLAN DAVID	M	UNIV. OF OTTAWA	3.250			G	92/1
** 93/1							
ALEXIS, NANCY E.	F	DREXEL UNIVERSITY	3.925	580	730	E	93/1
GALAGAN, JAMES EDWARD	M	UNIV. OF CALIFORNIA	3.176	740	730	L	93/1
** 94/1							
ATKINS, COLEEN MARIE	F	UNIV OF MINNESOTA	3.880	620	760	W	94/1
BARLINER, ALYSON JILL	F	COLUMBIA UNIVERSITY	0.000			P	94/1
BELANI, RAJESH		NORTHERN ILL. UNIV.	0.000			W	94/1
CASTRO, MARCIA	F	ROLLINS COLLEGE FL	3.240	540	690	E	94/1
CIOMBOR, KELLY JEAN	F	UNIVERSITY OF MIAMI	2.800	470	630	S	94/1
GENG, DONGJING		SHANGHAI SEC. MED.	0.000	350	660	R	94/1
GOLDMAN, TATIANA	M	MOSCOW SECHENOV	0.000	390	570	S	94/1
GREENE, KENNETH TODD	M	UNIV. OF NORTH CAROL	0.000	490	670	W	94/1
GUEST, JAMES DAVID	M	UNIV. OF ALBERTA	0.000			E	94/1
GUO, WEIDONG		INNER MONG. NORM. UN	0.000	500	780	R	94/1
HARRY, DARLENE MARIE	F	XAVIER UNIVERSITY	3.540	530	530	S	94/1
HE, WEN-YUAN		SHIHEZI MED. COLL.	0.000	510	720	R	94/1
HE, ZHANQUAN		TSINGHUA UNIVERSITY	0.000	490	800	R	94/1
HEBERT, MELEIK AIMEE	F	OCCIDENTAL COLLEGE	0.000	480	690		94/1
IBRAHIM, AYMAN B.		FAC. OF SCI. SCH OF	0.000			S	94/1
JI, ZHOU		NANJING. RAILWAY MED	0.000	410	750	S	94/1
JIMENEZ-FERNANDEZ, ANA M.	F	BARRY UNIVERSITY	3.890	490	530	E	94/1
LI, HONG-JIE		SHANGHAI SEC. MED.	3.200	480	770	S	94/1
LIAO, XIAOGANG		HUBEI MED. UNIV.	0.000	530	760	S	94/1
LOGAN, DAVID JEFFREY	M	UNIV. OF MICHIGAN	0.000			W	94/1
MA, JUN-TAO		SHANGHAI MEDICAL UNI	0.000	510	790	S	94/1
MARUTA, JUN		UNIVERSITY OF UTAH	3.490	500	760	R	94/1
MEDINA, JAVIER F.	M	DREXEL UNIVERSITY	4.000	550	690	S	94/1
MI, WEI		SHANGHAI MED. UNIV.	0.000	610	780	R	94/1
MOSMAN, JORDAN HAL	M	FLORIDA ATL. UNIV.	0.000	600	540	R	94/1
NELLESEN, DAVID TERRY	M	U.C.L.A.	3.024	650	730	S	94/1
PARALES, CARLOS JOSE	M	PONTIFICIA UNIVERSID	0.000	370	450	R	94/1
PENG, YUN		GUI YANG MED. COLL.	0.000			P	94/1

TABLE 2 - NEUROSCIENCE PROGRAM STUDENT APPLICANTS (CONTINUED)

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE
NEUROSCIENCE PROGRAM
ALL APPLICANTS

NAME	SEX	SCHOOL	GPA	GRE V	GRE Q	STATUS	ENROLLED
QING, ZHU		SHANGHAI MED. UNIV.	0.000	550	800	R	94/1
QINGLE, LIU		2ND MILI. MED. UNIV.	0.000	260	700	S	94/1
QIU, WEI		INST. OF ZOOLOGY	0.000	550	790	R	94/1
RAHMAN, MATTHEW ALAN		UC SANTA CRUZ	0.000			S	94/1
ROSS, TANZA LOUISE	F	WEST. WASHINGTON UNI	0.000			R	94/1
ROWLAND, GEOFFREY COLIN	M	UNIV. OF MICHIGAN	0.000			W	94/1
TRIVEDI, BHAVYA	M	UNIVERSITY OF MIAMI	3.940	680	800	E	94/1
VANSTRIEN, RAOUL TRISTAN	M	EMORY UNIVERSITY	3.360	590	790	P	94/1
WALTER, SHARON ANN		MOUNT HOLYOKE COLL.	0.000	590	440	S	94/1
WANG, XUE FENG		BEIJING MED. UNIV.	0.000			R	94/1
WARREN, RANDALL JAMES		OHIO STATE UNIV.	0.000			S	94/1
WEI, YUANYUAN		UNIV.SCI&TECH CHINA	0.000	450	800	P	94/1
YAO, RUISHENG		BEIJING MED. UNIV.	0.000	440	730	S	94/1
ZERVAS, MARK		UNIVERSITY OF MASS.	3.190	530	540	P	94/1
** 94/2							
VATANSEVER, HAFI SEDA		DOKUZ EYLUL UNIVER.	0.000			R	94/2
** 95/1							
BABU, SUBBARAMAN SUBASH		KILPAUK MEDICAL	2.500	690	770	R	95/1
BELMONT, HEATHER	F	ITHACA COLLEGE	3.700	480	530	E	95/1
BROOKS, ANDREW IRA	M	CORNELL UNIVERSITY	2.400	520	620	R	95/1
CHEN, KAISHENG		TSINGHUA UNIVERSITY	3.820	590	780	R	95/1
COFIELD,TRINA LASHON	F	UNIVERSITY OF MIAMI	2.500	550	560	R	95/1
COULTER, DANIEL	M	UNIV. OF IOWA	2.680			R	95/1
DAI, JIAN		WUHAN UNIVERSITY	3.470	490	780	R	95/1
DRAUGHN, LEANNE RUTH	F	U OF SOUTHERN MISS	0.000			P	95/1
DUERSTOCK,BRADLEY STEVEN	M	PURDUE UNIVERSITY	3.000	630	760	R	95/1
GENG, ZHI		BENGBU UNIVERSITY	0.000	480	760	R	95/1
GERBEC, FRANK	M	MCGILL UNIVERSITY	2.500	510	660	S	95/1
GUNTHER, ELIZABETH ANN	F	UNIV. OF MIAMI	2.800			R	95/1
GUO, HUA		CAPITAL INSTITUTE	3.500	440	750	R	95/1
HE, WENYUANU		SHIHEZI MEDICAL COLL	0.000	510	720	R	95/1
HONG, JIANG		SICHUAN UNIVERSITY	0.000	510	770	R	95/1
HU, ZHONGZHEN		BEIJING MEDICAL UNIV	3.500	480	800	R	95/1
HUANG, HAOJING		BEIJING MEDICAL UNI.	3.520	470	780	P	95/1
IMONDI, RALPH	M	BUCKNELL UNIVERSITY	3.800	540	580	R	95/1
JI, HONG	M	PEKING UNION MED.COL	4.300	490	780	R	95/1
KELLY, LAURIE ANNE	F	DEKALB COLLEGE	4.000			R	95/1
KUFEL, TIMOTHY JARED	M	UNIVERSITY OF TOLEDO	3.590			W	95/1
LEE, PAEK-GYU	M	PUSAN NATIONAL UNIV	0.000	550	740	R	95/1
LI, AI		BEIJING MED. UNIV.	0.000	630	780	R	95/1
LI, JI		BEIJING MEDICAL	3.920	480	800	R	95/1
LI, SIYUN		SHAN DONG MEDICAL UN	0.000	570	750	R	95/1
LI,FENG		BEIJING MEDICAL UNIV	3.800	440	790	P	95/1
LIAO, WEI		SHANGHAI UNIVERSITY	0.000	530	790	P	95/1

TABLE 2 - NEUROSCIENCE PROGRAM STUDENT APPLICANTS (CONTINUED)

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE
NEUROSCIENCE PROGRAM
ALL APPLICANTS

NAME	SEX	SCHOOL	GPA	GRE V	GRE Q	STATUS	ENROLLED
LIU, JIA		BEIJING MEDICAL UNIV	3.500	520	780	R	95/1
LIU, JIANG		SHUZHOU MEDICAL COLL	3.500			R	95/1
LU, HANXIN		NANJING UNIVERSITY	3.360	460	780	R	95/1
MARINESHU, VOICHITA		UNIVERSITY BUCHAREST	9.940	550	710	R	95/1
MITCHELL, KENDALL	M	ALBANY STATE COLLEGE	3.440	440	700	W	95/1
NAIMARK, MICHAEL DAVID	M	UNIVERSITY OF S.FL	2.200	660	630	R	95/1
PADUNGCHAICHOT, POOLPOL		LASALLE CHOTIRAVEE	0.000			R	95/1
PATWARDHAN, ANIL JAYANT		PENNSYLVANIA STATE U	3.040			R	95/1
PENG, WEI		BEIJING MED. UNIV.	3.900	650	770	R	95/1
QIAN, JIN		LYCOMING COLLEGE	3.800	460	790	R	95/1
RABINOVIC, ARIEL		U OF PITT	3.340	600	580	W	95/1
REN, CHUNYE		UNIV SCI-TECH	0.000			P	95/1
RICH, B. A.		THOMAS MORE COLLEGE	3.480	590	610	R	95/1
ROBINSON, MICHELLE LYNN	F	TUFTS UNIVERSITY	3.660			E	95/1
SESHADRI, SRIVIDYALAKSHMI		SRI RAMACHANDRA MED.	0.000			R	95/1
SHBEIR, SUHAD AHMAD	M	AMERICAN UNIVERSITY®	3.200	420	680	R	95/1
SHOU, JIANYONG		JIAOTONG UNIVERSITY	3.400	560	800	R	95/1
SIVASANKARAN, RAJEEN		ST.JOSEPHS COLLEGE	0.000			P	95/1
SOLOVYOV, ANTON DMITRY	M	MOSCOW STATE UNIV	3.500	570	780	R	95/1
TALBOT, JANET D	F	LOUISIANA STATE UNIV	2.600	590	710	E	95/1
THORGILSSON, BJORN		UNIV. OF ICELAND	0.000			R	95/1
VIJAYAN, SHRIJAY		M.S UNIVERSITY BAROD	3.500	570	680	R	95/1
WATT, VICTORIA	F	UNIVERSITY OF MIAMI	3.600			E	95/1
WEBBER, TIMOTHY JAMES	M	FLORIDA ATLANTIC UNI	3.370	670	630	S	95/1
WEN, DAIPENG		SUN YAT-SEN UNIV.	0.000	480	750	R	95/1
WU, LIANGTANG		ANHUI MEDIAL UNIV.	0.000	430	760	R	95/1
WU, ZHI-LIANG		BEIJING MEDICAL UNIV	3.500			R	95/1
XIANG, ZHONGMIN		PEKING UNIVERSITY	0.000	580	800	R	95/1
XING, DONGMEI		SHANDONG MED. UNIV.	3.360	500	780	R	95/1
XU, HUANHUAN		SOUTH CHINA UNIVER	0.000	270	670	P	95/1
XU, JIAN		SHANGHAI MEDICAL UN	0.000	510	760	P	95/1
YABUBAYASHI, TADAAKI		KYOTO PHARMACEUTICAL	4.000	360	730	R	95/1
YAN, TAO		SHANGHAI MED. UNIV.	0.000	720	780	R	95/1
YANG, XIAO-PING		SHANGHAI MEDICAL UNI	0.000	460	800	R	95/1
YE, ZUCHENG		PEKING UNIVERSITY	3.750	520	800	R	95/1
YING, SAIXIA		SHANGHAI MEDI UNIV	0.000	520	800	R	95/1
YU, WENDOU		BEIJING UNIVERSITY	3.400			R	95/1
YUE, GUOHUA(GUOWHUA)	M	SHANGHAI INST. OFBMB	3.730	520	750	R	95/1
ZHANG, JING		SHANGHAI MEDICAL	3.500	380	790	P	95/1
ZHANG, LANJUN		BEIJING UNIVERSITY	0.000			P	95/1
ZHANG, ZHI ZHOU		UNIV OF SCI & TECH	3.400	490	740	R	95/1
ZHOU, LI		W CHINA U OF MED.	88.600			R	95/1
** 95/2							
BACCUS, STEPHEN	M	NEW YORK UNIVERSITY	3.480	730	790	E	95/2

TABLE 2 - NEUROSCIENCE PROGRAM STUDENT APPLICANTS (CONTINUED)

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE
NEUROSCIENCE PROGRAM
ALL APPLICANTS

NAME	SEX	SCHOOL	GPA	GRE V	GRE Q	STATUS	ENROLLED
** 96/1							
BARON, REBEKAH	F	NOVA SE UNIVERSITY	0.000	590	600	R	96/1
CHEEPSUNTHORN, POONLARP	M	CHULALONGKORN UNIV	0.000	420	680	R	96/1
CHEN, HUI		PEKING UNIVERSITY	3.750	540	800	R	96/1
CHEN, XIAOGUN	F	SHANGHAI MED SCHOOL	3.580	550	790	R	96/1
CHEN, YUE	M	HUAZHONG UNIV	0.000	660	780	R	96/1
CHEN, YUNBO		PEKING UNIVERSITY	3.500	580	790	P	96/1
DAVID, DANIEL	M	U OF MASSACHUSETTS	3.000	500	750	R	96/1
FERNANDO, LORENCY	F	KILPAUK MEDICAL	0.000	560	670	R	96/1
JIANG, JIANGHONG		FUDAN UNIVERSITY	3.100	490	770	R	96/1
JIANHONG, SHI	M	PEKING UNIVERSITY	0.000	540	760	R	96/1
KINKINGNEHUN, SERGE	M	FLORIDA TECH	3.380			R	96/1
LANGASON, ROSEMARY	F	UNIV OF YAOUNDE	3.000	490	650	A	96/1
LEVIN, JACQUELINE	F	FAU	3.820	460	550	R	96/1
LI, XIN	M	ANHUI NORMAL SCHOOL	3.580	400	770	R	96/1
LI, XINMIN	M	WUHAN UNIVERSITY	3.700	680	780	R	96/1
LIU, NA	F	SHANDONG TECH	3.750	550	770	R	96/1
LUO, JIEXIN		PEKING UNIVERSITY	0.000	590	770	R	96/1
MARTINEZ, CHRISTINE LYNELL	F	U OF FLORIDA	3.730	600	700	S	96/1
MEDINA, JAVIER FRANCISCO	M	DREXEL UNIVERSITY	4.000	550	690	R	96/1
NAVIA, BENJAMIN ALEJANDRO	M	PONTIFICAL CATHOLIC	3.700	420	520	R	96/1
PIKOV, VICTOR EUGENE	M	VASSAR COLLEGE	3.800			P	96/1
PIKOV, VICTOR EUGENE	M	VASSAR COLLEGE	3.800	410	780	R	96/1
PINTZ, HENRY SEBASTIAN	M	MIAMI UNIVERSITY OH	2.300	380	470	R	96/1
ROWLES, JENNIFER LYNN	F	OLD DOMINION UNIV	3.410			R	96/1
SU, SHAOYU	M	UNIV OS SCI TECH	3.840	660	790	R	96/1
SUN, ZHIFENG	M	TSINGHUA UNIVERSITY	0.000	620	800	R	96/1
TALLER, DEREK	M	U OF CALIFORNIA	2.700	470	700	P	96/1
TSNOBILADZE, MEDEYA V.	F	MOSCOW INSTITUTE	3.900	390	740	R	96/1
WANG, JIAN		TONJI MED UNIV	3.900	520	760	R	96/1
WANG, NIANGUI	M	CAPITAL U OF MED	4.000	610	750	R	96/1
WANG, XIAOLAN	F	SHANGHAI MEDICAL UNI	4.350	500	760	R	96/1
WU, WENFANG	M	U OF SCI AND TECH	3.000	450	790	R	96/1
WU, XIANG	M	SHANGHAI JIAOTONG	3.600	660	800	P	96/1
XIE, XIANJIN	F	PEKING UNIVERSITY	0.000	490	780	P	96/1
YIN, YIJUN	M	BEIJING MEDICAL	4.000	490	690	R	96/1
YU, FULIN	M	SHANGHAI INSTITUTE	3.400	540	790	R	96/1
ZHA, XIANGMING	M	SHANGHAI JIAO TONG	3.250	630	780	P	96/1
ZHANG, YI		FUDAN UNIVERSITY	0.000	530	790	P	96/1
ZHAO, XINYU	M	PEKING UNIVERSITY	0.000			R	96/1
ZHAO, XINYU	M	PEKING UNIVERSITY	0.000	580	790	R	96/1

10/93

UNIVERSITY OF MIAMI
NEUROSCIENCE PROGRAM

Principal Requirements for the Ph.D. Degree*

I. Coursework: completion of 36 graduate credits (at least 24 of them at the University of Miami), exclusive of Research credits at the 700 level, with grades of C or better and average grade of B or better. In core courses grades of B or better are required.

II. Seminars and Journal Clubs: presentation of annual talks, attendance of program-related seminars, and participation in a weekly journal club throughout graduate training. Students who have begun work with a mentor are expected to present their research annually at a seminar announced to the Neuroscience Program members.

III. Qualifying Examination: passing the Ph.D. comprehensive examination and successfully defending a research proposal; these requirements are to be fulfilled usually not later than 24 months after enrollment in the Program. Normally, the comprehensive exam is taken near the end of the second year (A fuller description begins on p. 2.)

IV. Research: completion of an original research project suitable for publication in a first-rate scientific journal. Formal steps toward the fulfillment of this requirement include the following:

(a) Selection and consent of a doctoral research advisor from the Program Faculty. Although a selection may be made at any time during the lab rotations, the lab rotations must be completed.

(b) Formulation and successful defense of a Doctoral Research Proposal (a component of the qualifying examination).

(c) Registration in Research 730 for at least two full semesters (24 credits). Not more than six of these credits may be taken before the Doctoral Research Proposal has been defended successfully.

(d) Writing and successful defense of a Ph.D. dissertation.

V. Admission to Ph.D. candidacy in a semester prior to that in which the degree will be awarded. Prerequisites: I, II, III and IV(c) above, and filing an application for admission to candidacy.

VI. Formal application for the degree, submitted to the Office of the Graduate School before the posted deadline date, in the semester or session in which the degree is to be awarded.

VII. Dissertation completed, successfully defended, and submitted (four copies) in approved form at least one month before commencement in the spring semester or one week before the end of any other session in which the degree is to be received.

This summary highlights the main requirements; for additional details, see the Graduate School Bulletin, and also the separate Program statements that follow on choosing a Faculty Research Advisor, on the Doctoral Research Proposition, and on the Dissertation Committee.

*All requirements must be fulfilled within eight years of initial enrollment in the Graduate School and within four years of passing the Qualifying Examination.

CHOOSING A FACULTY RESEARCH ADVISOR: LAB ROTATIONS

After enrolling, the student will be assigned an advisor who will meet with the student monthly and will guide him/her until a research advisor is selected by the student. Not later than 12 months after enrolling in the Program, students are expected to choose research advisors who are willing to sponsor them. This choice is perhaps the most important decision that the student makes in graduate school. To facilitate an informed choice, the Program has established a lab rotation procedure, in which students will work on projects on rotation in at least three laboratories.

The student will arrange visits with faculty members whose interests may coincide with the student's. The student and potential lab supervisor shall discuss the goals of the rotation so that the student has a clear idea of what is expected of him/her. Completion of a body of work is not required. Although a lab rotation represents a committment, students may drop out of a rotation if needed. During fall and spring semesters, a rotation project should not last more than the semester or, during summer, not more than a month. A student will do rotation projects in at least three laboratories, but may do more. This rule is to apply even if a student chooses a mentor before completing three rotation projects. During these rotations, the student will have time to get a "feel" for what is actually involved day-to-day in the work of the various laboratories. Students are expected to keep the advisor fully and currently informed on the schedules and overall durations of such visits.

SEMINARS AND JOURNAL CLUBS

Since it is important that each student receive feedback and guidance on his/her regualr speaking presentations, such talks shall be attended by at least 5 Program faculty, including at least one member of the Steering Committee. It is left to the advisor to ensure such attandance. The Program Members will meet with the student immediately afterward to discuss the presentation, including matters of style and content. The student will within a day of the meeting provide the Committee Member and the Program Office with a written summary of the recommendations for improvement. This and any written comments of the Steering Committee member will be placed in the student's file.

QUALIFYING EXAMINATION

To become a Ph.D. candidate, a student is required to pass the Ph.D. comprehensive examination and then successfully defend a research proposal, generally not later than 24 months after enrolling in the Program.

A. The Ph.D. Comprehensive Examination

The comprehensive exam is written and covers general topics in the field of Neuroscience. The exam will occupy two afternoons, and consist of a few questions to be answered each afternoon. It will be designed to test the student's accumulated knowledge in Neuroscience, and to determine the student's ability to integrate and generalize previous specialized course work. The Steering Committee will administer the exam, which will usually be given near the end of the student's second academic year.

B. The Doctoral Research Proposal

1. The proposal should be a concise, original approach to a specific problem in the field the student has selected for dissertation research. Both the present status of the problem and the proposed experimental line of attack should be developed clearly in the statement.

2. The following format is appropriate:

Title, subtitle: "A Doctoral Research Proposal"; author's name; date submitted.

Precise statement of the proposal (the beginning sentence).

Summary and critical evaluation of previous work in the area of the proposal, with literature citations.

Supporting arguments for working hypothesis and proposed attack on the problem. Limitations of the proposed attack.

Experimental approach. State precisely what methods are to be used and why. Possible pitfalls.

Assessment of the significance of the proposal.

Bibliography. This is to be in the format of a scientific journal. It should include all citations referred to in the body of the proposal, and, therefore, the major publications in the field covered by the proposal.

3. Apart from the emphasis on conciseness, no guidance can be offered as to an ideal length. In the past, lengths have ranged between 1500 and 3000 words, exclusive of bibliography. The proposal is to be submitted typed double-spaced, with original and six copies.

4. The submitted proposal is to be produced by the student. The essential idea may, however, originate with the advisor or with the student. While suggestions and criticisms may be freely obtained from the faculty, writing or rewriting of the proposal is to be done entirely by the student.

C. Acceptance and Defense of the Proposal

1. When the student and the student's advisor decide that the written proposal is adequate, they shall request the Program Steering Committee to set up Supervisory Committee.

2. The Program Steering Committee shall designate a Supervisory Committee of at least five full members of the Program faculty, including the research advisor and members from at least two departments, and shall name as Chairman of the Supervisory Committee one of that number other than the research advisor of the student. The Chairman of the Supervisory Committee shall help to set the tone of the examination and will coordinate the questioning. The time set for the oral defense shall not be less than two weeks after the proposal is distributed to the members of the Committee.

3. The purpose of the proposal and its defense is to develop the student's capacity to carry out research: to pose pertinent questions, to marshal the scientific literature bearing upon the specific problem at hand, to exercise sound critical judgement, to plan a suitable course of investigation, to select appropriate experimental methods, and to anticipate the possible pitfalls.

The student should start the oral defense of the proposal with a more extended presentation of the proposal, in all its aspects. Here, again, no precise guide can be given for the length of the talk, but it should not exceed 50 minutes.

The student's understanding of the subject matter of the proposal should show depth, including knowledge of relevant original literature and neurobiological principles, and of the capabilities and limitations of the experimental methods to be used. The emphasis throughout the defense will be on the substance of the proposal. Details of both the specific proposal and the student's general grasp of the subject will be explored. The student should be prepared to discuss critically the significance of the proposed work for the fields to which it relates.

D. A student who fails the written comprehensive examination or oral proposal defense on first attempt will have a second opportunity provided that this is taken within 24 months after enrollment in the Program.

THE DISSERTATION COMMITTEE

Selection and composition

The Committee is set up when the dissertation problem is chosen. Usually the Committee is identical in membership with the Supervisory Committee. Nomination is by the Program Steering Committee in consultation with the student and with the principal advisor; appointment is by the Dean of the Graduate School. The Dissertation Committee comprises at least five full members of the Program faculty, including the research advisor and members from at least two departments.

Meetings

The Committee meets to receive and discuss an oral presentation by the student on the following occasions:

(a) upon initial definition of the dissertation research problem; this may coincide with the Qualifying Examination, but if it does not, the student distributes a detailed outline of the problem to the members of the Committee in advance of the meeting;
(b) upon any major redefinition of the research problem; here too a detailed outline should be distributed by the student in advance;
(c) in any case, not less often than semi-annually, to review the student's research progress;
(d) when the student is ready to begin drafting the dissertation: each member of the Committee must receive personally a detailed outline of the proposed dissertation at least two days before this meeting; it is advantageous for the student to discuss the work individually with the Committee members, but decisions within the province of the Committee should be reserved for meetings of the Committee; the Committee hears and discusses the student's presentation of the work; unless more than one member of the Committee dissents, the student may then proceed to write the dissertation;
(e) again, if a major change in the picture of research findings develops after the foregoing meeting;
(f) on such other occasions as its chairman or the student deems useful.

At the end of each meeting, the student is temporarily excused while the Committee briefly summarizes his/her progress towards the Ph.D. degree. The summary is then discussed with the student and amended to take account of pertinent comments by the student. Finally, the summary is submitted to the Chairman of the Graduate Studies Committee and to the student.

Dissertation and final examination

The candidate circulates copies of the completed dissertation to the Committee members for review and comment. Not less than a week afterward, the Committee meets to advise the student of its ideas concerning the dissertation. When the student has prepared the final version of the dissertation and has distributed (unbound) copies to the members of the Committee and made one copy available to the Program, the public oral defense is scheduled and announced, for a date not less than one week after distribution of the announcements. The Committee functions as a final Examining Committee immediately after the public presentation; the Program Steering Committee names a member of the Committee other than the principal advisor to preside at the defense. In order for a Ph.D. candidate to receive the degree at a particular commencement, the successful defense of the dissertation, the submission of three final copies of the dissertation, in approved form, to the Office of the Graduate School, and the submission of a fourth copy, in the same form, to the Program Steering Committee, must be done at least one month before commencement.

FAXED 10-6-92

UNIVERSITY OF Miami

November 5, 1992

MEMORANDUM TO: Barbara Hoadley
Secretary to the Faculty Senate

FROM: Dorothy M. Ball
Assistant Secretary of the University

SUBJECT: **Certified Extract of Minutes**

The Executive Committee, at a meeting held on Thursday, October 29, 1992, took action on an item pertinent to your area. A certified extract of minutes of this action is enclosed.

If I may provide you with any additional information, please do not hesitate to contact me.

Dorothy M. Ball

DMB:pl

Enclosure

cc: Cyrus M. Jollivette

CECS\cover.mem

Board of Trustees
P.O. Box 248042
Coral Gables, Florida 33124-4624
305-284-4025
Fax: 305-284-5425

CERTIFIED EXTRACT OF MINUTES
AND
CERTIFICATE OF SECRETARY

I, the undersigned, Assistant Secretary of the **UNIVERSITY OF MIAMI**, a non-profit corporation duly organized and existing under the laws of the State of Florida, hereby **CERTIFY** that the following is a true and correct copy of a certain resolution passed by the Executive Committee of the Board of Trustees of the said corporation, in accordance with the Bylaws at and recorded in the minutes of a meeting of the said Executive Committee duly held on October 29, 1992, and not subsequently rescinded or modified:

ACTION: Upon a motion duly made, seconded and passed unanimously, the Executive Committee of the University of Miami Board of Trustees approved the following degree programs: Master of Fine Arts in Creative Writing; Ph.D. in Industrial Engineering; Bachelor of Science in Computer Engineering; and Ph.D. in Neuroscience.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the said corporation this 5th day of November, 1992, at Coral Gables, Dade County, Florida.

Dorothy M. Ball
Assistant Secretary of the University

(Corporate Seal)

Remarks from the Provost

Vice Provost Ullmann explained that the Provost was visiting Arizona State University, the site of the new Dean of Architecture's present program. He assured the Council of his intention to open lines of communication between the administration and faculty. There are some indicators that suggest more loss of revenue from the hurricane than was originally anticipated. Dr. Ullmann indicated that the University is making efforts for facilitating payment of tuition fees by students.

Agenda Items for the October 5 Senate Meeting

College of Arts and Sciences

Dean Murfin spoke about the Center for Theoretical Studies formerly directed by Professor Behram Kursunoglu. The School Council, after hearing from the Department of Physics, voted to disestablish the Center. Following discussion, it was *moved* and seconded to recommend to the Senate, after action by the College, that the Center for Theoretical Studies be disestablished as a University center. The *motion carried.* It was *moved* and seconded to agenda for the November Senate meeting the question of whether or not the University shall surrender any right to the title "Center for Theoretical Studies". Dr. Kursunoglu may be invited to discuss his proposal. The *motion carried.* The Provost's office was requested to inform the Senate of the status of the Center for Advanced International Studies and the Institute for Cellular and Molecular Evolution and whether, if moribund, they should be disestablished.

The Neuroscience Ph.D. program had been approved by the Faculty Senate pending the College of Arts and Sciences' formal approval which took place recently.

The M.F.A. in Creative Writing was approved by the Senate pending the disestablishment of the M.A., D.A. and the Ph.D. degrees in Creative Writing by the College. That action had now been taken and approved by the College.

Reorganization of the Senate

Dr. Knoblock informed the Council that the ad hoc drafting committee will review all proposed legislation. A draft of proposed Charter revisions will be distributed at the October 5 Senate meeting.

UNIVERSITY OF Miami

Academic Affairs

COMMITTEE

September 29, 1992

MEETING DATE

BOARD OF TRUSTEES

SUBJECT:

Ph.D. Degree in Neuroscience

PRESENTED BY: Luis Glaser, Provost

BACKGROUND/CURRENT STATUS/MATTERS REQUIRING ACTION/
FINANCIAL IMPLICATIONS:

President Foote, Provost Glaser and the Faculty Senate have approved a Ph.D. Degree in Neuroscience and recommend Board approval.

Information on the program is attached.

BOARD RESOLUTION REQUESTED:

Recommend approval by the Executive Committee.

UNIVERSITY OF Miami

SCHOOL OF MEDICINE

M E M O R A N D U M
April 28, 1992

TO: Barbara Hoadley
Faculty Senate

FROM: Bob Warren
School of Medicine

SUBJECT: Letter from Prof. Muller concerning Neuroscience Program proposal

The enclosed letter was given to me to present at the Senate meeting yesterday. I had prepared copies to distribute to the Senators, but discussion of the specifics of Prof. Muller's response to the questions raised at previous Senate and Council meetings about the program was preempted by Prof. Knoblock's proposal to approve the Program in principle contingent upon approval by Arts and Sciences and the adoption of an enabling By-Law. Should anyone ever inquire, I believe that this letter, along with the earlier letter of April 11 and the corrected list of students for pages 24 and 25 of the proposal (copies enclosed) provide the responses needed to the questions arising out of first reading of the proposal.

Department of Cell Biology and Anatomy (R-124)
P.O. Box 016960
Miami, Florida 33101
Tel: (305) 547-6691 • Telefax: (305) 545-7166
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33136

Draft Resolution for Senate agenda of April 27, 1992
(R. Warren)

Resolved: As a consequence of the first reading of the proposal to create a degree-granting, inter-disciplinary, graduate training program in Neuroscience, the Faculty Senate affirms its support in principle of this proposal and its new pathway for the University of Miami. It is the concensus of the Senate that timely implementation of this program will strengthen the competitive position of the University in recruitment of high quality applicants to the Neurosciences. In recognition of the unanticipated difficulties that have been encountered by the proposers of the Program, the Graduate Council, and the Senate itself in moving toward final approval of the Program, the Senate recommends the following:

1) Appointment of an ad hoc committee of the Senate to draft, over the summer recess, an addition to the By-Laws that will grant to the graduate faculty who are members of an inter-disciplinary, non-departmentalized, graduate training program that has been approved by the Faculty Senate the right to act as a Department for the purpose of conferring degrees.

2) Enactment by the new Senate of such a By-Law at its first meetings in the fall term and the scheduling of a second reading of the proposal for a Neuroscience program immediately thereafter.

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

April 27, 1992

Prof. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Administration Bldg.

Dear Dr. Whelan,

I have been asked by Dr. Robert Warren to clarify two points in the proposal for a doctoral program in neuroscience.

1. The criteria for full membership as stated on page 9 of the proposal include that the applicant "have maintained independent funding at the national level for his/her independent research projects." The policy in the present department-based program, and this is surely the intent for the new program, is that applicants shall have had such funding at some time within the previous five years. Technically this would mean that a member who is nearing the end of his first five years before review could have gone nearly ten years without receiving funding at a national level, although such members would presumably be rare.

2. Concerning the election of steering committee members, it is state on page 11 of the proposal that they "will be elected by the members of the Neuroscience program in that particular unit in *consultation* with the Steering Committee (italics added)." The reason for requiring consultation with the committee is that it is important that steering committee members be dedicated to working for the program. Members of a particular unit should know who has helped the program in the past and, equally important, who has refused to help. It is thought that the sitting steering committee is in the best position to advise members of this. This is not a power to veto the members' selection.

I hope that this answers questions you might have.

Sincerely yours,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman, Neurosciences Program
Steering Committee

Neurosciences Program (R-430)
P.O. Box 016430
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33101
(305) 547-3368

Ph.D. Degree in Industrial Engineering (Second Reading)

A query was made about the three-year review of the Ph.D. degree in Ergonomics that was mandated when the program was approved. It was stated that the review was conducted in 1990 and the program rated positively. A copy is on file in the Senate Office. It was agreed that, in the future, copies of such reviews will be circulated to the Senate. The questions previously raised concerning the library holdings have been answered by letters from Professor Khalil and from Professor Angus Mundy expressing their views that the holdings are satisfactory as listed in the proposal. Professor Asfour explained that the computer facilities have been updated and are considered to be adequate. It was *moved* and seconded to *amend* the proposed legislation as follows: The name of the degree shall be Ph.D. in Industrial Engineering and that the present Ph.D. in Industrial Engineering (Ergonomics) shall be renamed Ph.D. in Ergonomics. The *motion to amend carried.* The *motion as amended carried.*

M.F.A. Degree in Creative Writing (Second Reading)

It was *moved* and seconded to approve the M.F.A. degree in Creative Writing contingent on the approval by the College of Arts and Sciences of the elimination of the concentration in the Master of Arts, Doctor of Arts, and the Doctor of Philosophy in Creative Writing by a normal vote of the faculty. The *motion carried* by a vote of 18 in favor, none opposed, with 1 abstention.

Ph.D. Degree in Neuroscience (Second Reading)

It was *moved* and seconded to approve, in principle, for purposes of admitting students in the fall, an interdisciplinary Ph.D. program in Neuroscience as described in the proposal. The approval of the partiticpation of the College of Arts and Sciences is contingent on agreeing to participate in the program by normal vote of the faculty, and the preparation of a bylaw, by the Senate Council this fall, which will govern the operations of this and similar interdisciplinary programs, as described in Section 5.7 of the *Faculty Manual.* The *motion carried* by a vote of 17 in favor, 1 opposed, with 2 abstentions.

Professor Knoblock *moved* that the rules of the Faculty Senate be modified requiring unanimous consent for the consideration of any program which is incomplete, i.e., any of the items listed in the instructions from the first reading, or in the guidelines approved by the Senate previously. The *motion carried.*

M E M O R A N D U M
April 22, 1992

TO: William Whelan, Chairman, Faculty Senate

FROM: Bob Warren BW

SUBJECT: Neuroscience Proposal

After our telephone conversation yesterday, I did the following:

1) spoke with David Wilson and Neal Schneiderman of Arts and Sciences (I was unable to reach ~~Jim~~ Tom Nolen) and Mike Schmale of RSMAS. All of them agreed that they are satisfied with the present arrangement of sharing one representative to the steering committee of the Neuroscience program. Neal Schneiderman stated that his colleagues in Psychology share this opinion and Dan Baden is on record at the last Council meeting as being in agreement. Should the membership in Neurosciences from A & S and RSMAS increase proportionally, however, they expect the issue to be revisited.

2) talked to Paul Dee regarding the form that a by-law should take in establishing degree-granting power for inter-disciplinary programs. He recommends language that empowers the faculty of a program that has been approved by the Senate to act as a department for the purpose of conferring degrees. This could serve as an umbrella for any program that would follow later.

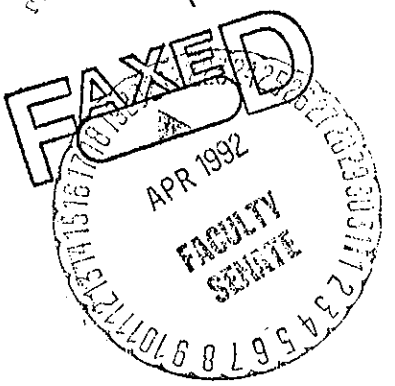
3) discussed with John Knoblock what he would consider acceptable in the way of a resolution from the Senate regarding its support for the Neuroscience proposal. The resolution that I have drafted for consideration by the Senate is attached.

For the Senate agenda of April 27, I would like to make a short statement summarizing the merits of the proposal, including the the need to maintain relatively high standards for membership in the program to obtain grant funding, give a chronology of the difficulties that were encountered at all stages of consideration of the proposal and the good faith efforts of the chair and steering committee of the program to accomodate new requirements, and submit the attached resolution for approval by the Senate.

Pending, Pending, FE, R H

UNIVERSITY OF Miami

COLLEGE OF ARTS AND SCIENCES



Office of the Dean

MEMORANDUM

April 21, 1992

TO: William Whelan, Chairman, Faculty Senate

FROM: Paul H. Blaney, PHB Associate Dean
College of Arts and Sciences

RE: College actions pertaining to matters before the Senate

1. For what it's worth, the College Council of the College of Arts and Sciences approved the disestablishment of the Ph.D., D.A., and M.A. degrees in Creative Writing at its meeting of April 20.

2. In the event that the Faculty Senate determines next Monday (April 27) that action on the part of the entire College Faculty is required for the Neurosciences Ph.D. program and/or the Creative Writing M.F.A program to proceed, a special meeting of our Faculty will be held the next afternoon (April 28). If this meeting is needed, please make sure that I am notified late Monday--at home (442-1779) that evening if necessary.

phb:ek
chairs49.p3

P.O. Box 248004 • Coral Gables, Florida 33124-4620 • 305-284-4117 • Fax: 305-284-5637

UNIVERSITY OF
Miami

COLLEGE OF ARTS AND SCIENCES

Office of the Dean

MEMORANDUM

April 16, 1992

TO: William Whelan, Chairman, Faculty Senate

FROM: Paul H. Blaney, Associate Dean
College of Arts and Sciences

RE: Neuroscience; Creative Writing

Two issues of interest to the Senate were up for consideration at yesterday's meeting of the faculty of the College of Arts and Sciences: approval of the Neuroscience Program, and disestablishment of all graduate degrees in creative writing upon approval of the MFA in Creative Writing.

Regrettably, a quorum was never attained at that meeting. These two issues were discussed by those present, and votes were taken. No substantive objections were raised either to the approval of the Neuroscience Program or to the disestablishment of the existing graduate degrees in creative writing, and in both cases the votes were near-unanimously in favor of the action. But, of course, the votes were unofficial, given the lack of a quorum.

I believe that most or all of our faculty view these issues as noncontroversial. Note also that the Neurosciences Program was previously approved by our College Council. In addition, it is my recollection that it was made explicitly clear, when the College approved the MFA in creative writing, that this would replace the existing graduate offerings in creative writing. The Dean and I would be relieved if the Senate accepted yesterday's near-unanimous, albeit unofficial, votes as comprising the necessary College approval. However, if you judge that it does not, we can raise these issues at the next College faculty meeting in September. Moreover, *if programmatic initiatives would be delayed without our prompt approval, we are willing to call a special meeting of the faculty (probably on April 27) specifically for the purpose of addressing these issues in a proper fashion.*

Please let me know how you would like to proceed.

P.O. Box 248004 • Coral Gables, Florida 33124-4620 • 305-284-4117 • Fax: 305-284-5637

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821

April 15, 1992

Dr. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Administration Bldg.

Dear Dr. Whelan,

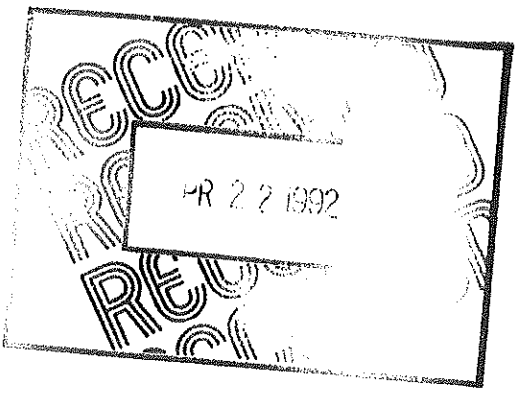
I and the faculty in my department, whom I have polled, support the replacement of the existing department-based neurosciences program described in the graduate catalog with a university-wide neurosciences program as outlined in the proposal now before the senate.

Sincerely,

James D. Potter, Chairman
Molecular and Cellular Pharmacology

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821



April 15, 1992

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Faculty Senate
325 Ashe-Administration Bldg.

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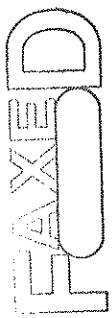
Sincerely,

Kermit L. Carraway, Chairman
Cell Biology and Anatomy



UNIVERSITY OF
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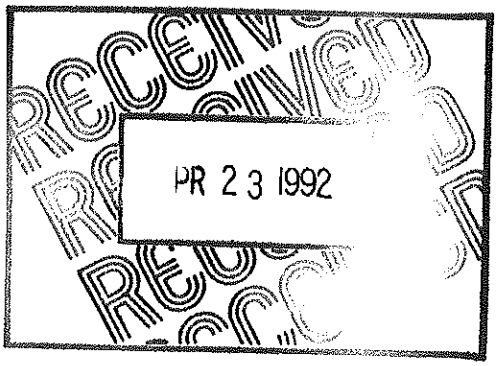

April 15, 1992

Dr. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Administration Bldg.

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Sincerely,

J. Wayne Streilein, Chairman
Microbiology and Immunology

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821

April 15, 1992

Dr. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Administration Bldg.

Dear Dr. Whelan,

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Sincerely,

Keith Brew

Ernest Y. C. Lee
Chairmen,
Biochemistry and Molecular Biology

Pending, I & M

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

FAXED
APR 1992
FACULTY SENATE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821

April 15, 1992

Dr. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Administration Bldg.

Dear Dr. Whelan,

I and the faculty in my department, whom I have polled, support the replacement of the existing department-based neurosciences program described in the graduate catalog with a university-wide neurosciences program as outlined in the proposal now before the senate.

Sincerely,

Werner L. Loewenstein, Chairman
Physiology and Biophyics

Pending, FC, 3 A

UNIVERSITY OF Miami

SCHOOL OF MEDICINE

April 11, 1992

Prof. W.J. Whelan, Chair
Faculty Senate
325 Ashe-Adminstration Bldg.

Dear Dr. Whelan,

Thank you for your letter of April 2, in which you ask for my responses to 3 issues raised during the Senate meeting on March 30. The Program Steering Committee and I have discussed your letter and are in agreement. I hope that with the following I have answered the questions to your and the Senate's satisfaction.

1. As you point out, if the proposed program is approved, it will replace the present program and its associated degrees. This has been clear throughout, and the proposed program has the support not only of the faculty through their representatives, but also of the the chairmen of the basic science departments, who have written a letter to that effect to Dean Fogel. Concerning those students now in the program, we agree with your suggestion that students shall receive a department-associated degree unless otherwise requested.

2. I was embarrassed that the list of students was not uniformly selective in its choice of graduate students presently working in neuroscience-related areas. The list, compiled by Dr. Robert Davidoff in consultation with Program faculty in different departments, has been revised and is appended. We have 5 added full-members to the Program since the Proposal was submitted. These are Drs. Daniel G. Baden (RSMAS), Brenda L. Lonsbury-Martin (Otolaryngology), Glen K. Martin (Otolaryngology), Paul Shapshak (Psychiatry), and Michael Schmale (RSMAS). Their CV's are enclosed.

3. The members of the Steering Committee are to be representatives of the Program membership. Accordingly, they are elected by full-members of the Program as detailed on page 11, section 6.b.i.

Please contact me if you have questions on these or any other matters.

Sincerely,

Kenneth J. Muller
Chairman, Neurosciences Program
Steering Committee

Enc.

Neurosciences Program (R-430)
P.O. Box 016430
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33101
(305) 547-3568

Appendix 3.

List of students in Neuroscience-related fields presently enrolled in graduate programs in the University.

Undergraduate degrees were obtained from the schools in parentheses.

Cell Biology and Anatomy

none currently

Biochemistry

Adviye Ergul (University of Istanbul)
Lizette Fernandez (Miami)

Biology

Valerie Bansbach (Pomona College)
Guiyan Deng (Beijing Agricultural University)
Sandra Perez (Pittsburgh)
Irene Thio (Pittsburgh)

Cellular and Molecular Pharmacology

Kelley Bodden (New College)
Jigany Carsi-Gabrenas (Miami)
Qian Chen (Peking Union Medical College)
Javier Cuevas (Dartmouth)
Hongran Fan (Peking University)
Daren Grossman (Miami)
Li Li (Shanghai Medical University)
Matt Lorenzi (Marquette)
Xingjian Lou (Shanghai Institute of Medicine)
Steven Max (Miami)
Howard Motoike (California State)
Sherry Purkerson (Miami)
Zelin Shen (Henan Medical University)
Glen Van Slooten (Rutgers)
Zijian Xu (Shanghai Medical University)
Markus Zeller (Colgate)
Ren Zhang (Peking Union Medical College)
Sheng-Ping Zou (Hunan Medical College)

Microbiology and Immunology

none currently

Neuroscience

Thomas Morrissey (Florida)
John Pablo (Wayne State)
Howard Rind (SUNY)
Lamya Shihabuddin (American University of Beirut)
Allan Levi (University of Ottawa)

Physiology and Biophysics

Michele Borgeson (Florida)
Eric Levine (Brandeis)
Jacqueline Miodownik Seldes (University of Buenas Aires)
Yingjian Wang (Peking University)
Jun Yan (Beijing Second Medical College)
Xiao-wei Zhou

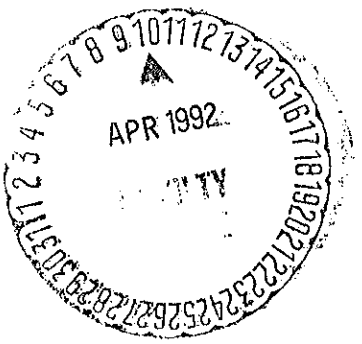
Psychology

Yu-Fei Duan (Beijing University Medical School)
Mathew McEchron (Iowa)
Thomas Reed (Miami)
Susan Lutgendorf (Iowa)
Alejandra Pazos (American University)
Ruth Quillian (Virginia)
Mario Rodriguez (Miami)
Kathleen Starr (Iowa)

RSMAS

Rich Edwards (Westminster College)

Pending, IE, given to WW



UNIVERSITY OF
Miami

COLLEGE OF ARTS AND SCIENCES

Office of the Dean

MEMORANDUM

April 10, 1992

TO: Dr. William Whelan, Chairman, Faculty Senate

FROM: Paul H. Blaney, Associate Dean
College of Arts and Sciences

RE: Neurosciences Program

We now understand that, since the College of Arts and Sciences is to be among the participating units in the proposed Neurosciences Program, approval of the proposal is required by the general faculty of our College. The matter is on the agenda for our April 15 meeting, and I expect that it will generate little controversy.

If objection is raised, it will probably be with respect to the notion that one Steering Committee member would represent program faculty on both Coral Gables and RSMAS campuses. I don't think the concern would pertain to power or control, merely to the need to have a workable governance structure. As you know, there can be difficulties when one person is cast in the role of representating more than one department on the same campus, but such problems would likely pale by comparison with those that could arise with an individual trying to represent faculty on two campuses.

In the process of its review a few weeks ago, our College Council at first worried about this aspect of the program proposal, then decided to let it pass on the basis that, as no RSMAS faculty were on the program roster, the matter was moot. However, we have recently learned that several RSMAS faculty wish to join the program, so the concern comes to life. I suspect there will be some sentiment that the program's charter should assure the College of Arts and Sciences (or the Coral Gables campus) its own Steering Committee representative (assuming that there are Coral Gables faculty participating in the program). I wouldn't be surprised if sentiment at RSMAS were parallel.

I understand that the Senate has approved the program on first reading, and that the second reading is pending. My question: If our faculty approves the program *subject to Arts and Sciences having its own member on the Steering Committee*, what will be the implication of our having done so? Will the inclusion of the contingency foil the timely approval of the program? Can the Faculty Senate just approve the program with such a modification, or would such an action on our part send the approval process back to square one?

cc: Dr. Kenneth Muller

phb:ek
whelan

P.O. Box 248004 • Coral Gables, Florida 33124-4620 • 305-284-4117 • Fax: 305-284-5637

MINUTES

SCHOOL COUNCIL MEETING

8 APRIL 1992

Present. Rosendahl (Chair), Harrison (Vice-chair), Natland (MGG), Leaman (MPO), Moreno (MAF), Meltzoff (MAF), Fine (MAC), De Ferrari (AMP), Myrberg (MBF), Ginsburg (MGG), Schmale (MBF), Ken Muller (Medical School).

(1). The minutes of the previous three meetings were unanimously approved.

(2). It was confirmed that Dr.Skop should be appointed to the School Academic Committee to ensure adequate communication about the Undergraduate Environmental Science Program.

(3). The Walton Smith Conference proposal was presented by Dr. Ginsburg from the RSMAS 50th Anniverary Committee. This concept was enthusiastically welcomed by the School Council, and the Committee was urged to continue planning such an event.

(4). The Dean stated that he and the Provost were still working on a plan to implement the suggestion made by Dr. Saltzman concerning undergraduate teaching compensation for RSMAS faculty.

(5). The Dean said that plans would soon be forthcoming for a visit by President Foote and Mr. Roy Nirschel to RSMAS to discuss development affairs with the DAC and the School Council. (Vice chair note:- This has already happened, and you should have received an invitation).

(6). Not much interest was shown in a proposal to start post graduate degrees at the University of Miami.

(7). The tenured members of the School Council, acting as the voting unit for the Division of Marine Affairds, voted on the reappointment and progress towards tenure for Dr. Suman. The MAF chair, Dr. Meltzoff, will record the vote and ensure that the file is ready for the faculty meeting later this month.

(8). Conderable discussion took place about the Faculty Senate's actions on the President's proposals concerning tenure. Because of an unfavorable "Sense of the Senate" vote two weeks earlier, the President withdraw from discussion at the Faculty Senate meeting on 6 April three of his proposals. These were the proposals concerning post tenure review, tenure in a school or college rather than

in a department, and senior lecturer status. Dr. Brass discussed these matters at some length. Also discussed were the Senate's action to allow schools to vote on whether research faculty can have voting rights. Charter legislation was passed by the Senate (requiring faculty approval) which will allow the tenured members of the school faculty to decide each year whether to extend voting rights to research faculty on items 2-5 of the proposed legislation passed out to school council members at an earlier meeting.

(9). Dr. Muller presented the program in Neurosciences for graduate students. This is a program comprising faculty in the College of Arts and Sciences, Rosenstiel School and Medical School. The students will obtain Ph. D. degrees in Neurosciences, with no departmental affiliation. Two members of the RSMAS faculty, Drs. Baden and Schmale, will be part of the program, which is governed by a group of seven faculty from the Medical School and one from the Department of Psychology. The School Council unanimously approved the establishment of this program.

Ph.D. Degree in Industrial Engineering

Professor Brass, Chairman of the ad hoc committee to review the proposal for a Ph. D. in Industrial Engineering, informed the Council that the Graduate Council had approved the proposal. He introduced a draft of Class B legislation for the Senate to approve the degree. The provision for a review three years hence is a standard practice for Ph.D. degree programs. The representative from the Library raised questions about the adequacy of the library holdings, 14 items were incorrectly listed in the proposal as available in the Richter Library. He pointed out that the Library has been requested to purchase 10 journals that would support the program, but due to budget cuts, they were unable to purchase them. It was agreed to request a letter from the Library Collection Development Officer, Mr. Angus Mundy. It was *moved* and seconded to include the Class B legislation in the agenda of the next Faculty Senate meeting. *The motion carried* with one abstention.

Ph.D. Degree in Neuroscience

Professor Brass explained the need for a bylaw for interdisciplinary programs, which do not have a departmental home, in order to be able to grant degrees. He suggested that the Council recommend to the Senate to approve provisionally the program in Neuroscience while an ad hoc committee drafts a bylaw in accordance with Charter 5.7 to give the program a legal degree-granting status. Professor Warren stated that several questions were raised during the first reading: the process to elect the steering committee, the degree-granting status, and the list of graduate students submitted. This program, Professor Warren explained, was replacing the present departmentalized neurosciences program. The students now in the existing program will receive a department-associated degree, unless otherwise requested. A revised list of student names was submitted with the addition of the names of five faculty. In reference to the election of the Steering Committee, the members of the Committee will be representatives of the Program membership. The College Council of the Rosenstiel School of Marine and Atmospheric Science unanimously approved the program on April 8. The College of Arts and Sciences will discuss the proposal on April 15. Discussion followed regarding the representation on the Steering Committee. It was agreed to request that the matter of representation on the Steering Committee be reconsidered. It was agreed to forward the proposal to the Faculty Senate on April 27 with the additional information requested at the first reading on March 30. It was *moved* and seconded to agenda this item for the next Faculty Senate meeting and to request a report answering the questions raised during this reading. The *motion carried.*

Matters Arising from the Minutes and not dealt with separately

Professor Brass, Vice Chair, introduced the matter of the Ocean Pollution Research Center and requested that the Center be considered a Sponsored Center in the Rosenstiel School. Any members of other schools participating will be given secondary appointments in RSMAS so that it will remain a center within the School and will require only the approval of the name. It was *moved* and seconded to amend the proposal as an Institute or Sponsored Center as outlined in Bylaw 6.6 of the *Faculty Manual* and, at some future time if the Center becomes a school-wide center, then a request will be made to make it an Independent Center. The *motion carried.*

Guidelines for Submitting a Proposal for a New Graduate Degree Program

The Chair suggested that a checklist and instructions, including the approval of other schools having an interest in the program, be attached to the Guidelines to assist the review committees. It was *moved* and seconded to instruct the Chair to formulate the necessary addendum. The *motion carried.*

Proposed Ph.D. Degree in Neuroscience

Professor Robert Warren, Chair of the Senate ad hoc Review Committee, presented the report of the Committee, on the proposed Ph.D. degree in neuroscience, long with the Graduate Council's letter of approval and Dr. Kenneth Muller's response to the outside reviewers' report and the Committee's report. The basic science department chairmen and the School of Medicine School Council had also submitted letters of support. The College of Arts and Sciences must still discuss the proposal and submit their letter of support. Professor Warren stated that the basic issue of the process is that a non-departmentalized program is applying for degree-granting status. He also noted that the Graduate Council and the outside reviewers' committee both recommended that Dr. Muller, Chairman of the Steering Committee of the Neuroscience Program, should be given the title of Director. Vice Provost Sugrue indicated that he had received a letter from the School of Medicine committing to funding the program by providing secretarial assistance and two new stipends each year. Each student will receive support for two years. Professor Warren stated that a program training grant will be sought to supplement the University's support. It was *moved* and seconded to agenda the proposal, without recommendation from the Council, and accompanying letters for the scheduled Senate meeting on March 30. The absence of a recommendation was due to the Council not having all necessary approvals at hand. In response to a query about the oversight of the students' progress, Professor Warren stated

that a steering committee will be responsible for academic and policy-making decisions. A three-person committee will be appointed to provide advice and guidance to the students. It was pointed out that the school faculty must also vote on proposed programs unless the appropriate school council is given explicit authorization on an annual basis to act for the faculty. *The motion carried.*

President Foote's Proposals on the Faculty Appointment System

It was *moved* and seconded to agenda the President's proposals for the Faculty Senate meeting of March 23. The *motion carried.*

Proposed Degree of Master of Fine Arts in Creative Writing

Professor Johnson, Chair of the ad hoc committee to review the proposed Master of Fine Arts degree in Creative Writing, stated that the committee endorsed the program and hoped that the Council would recommend to forward it to the Senate. Financial support for the program will come from the James Michener Endowment, the Summer Caribbean Institute, and reallocated funds from the pt/ot budget for English 105 and 106. The College of Arts and Sciences has pledged to fund up to 20 TAs. The strong Ph.D. and M.A. programs in English will offer the M.F.A. in Creative Writing academic support in literature and in criticism, lacking in other programs in the state. She recommended stronger library collections from the ones recommended by the outside reviewers, and suggested that the Council request a detailed breakdown of a three-year budget, including appropriate allocations of overhead, costs for travel, library allocation, clerical support, advertising and recruiting costs, and the extent to which directing resources to this program will impact on others areas. It was *moved* and seconded to request such a budget breakdown from the Chair of the English Department, including approval of the College faculty, completion of the guidelines and the endorsement of the Dean of the College and the Provost. *The motion carried.* It was *moved* and seconded to delegate the Chair to request the documents before March 23, and agenda discussion of the program for the next Senate meeting on March 23. *The motion carried.*

Schedule of Senate and Council Meetings During the Reminder of 1991-92

It was agreed to move the second reading of the President's proposals to April 6 and the first and second readings of the new degree programs to March 30 and April 27 to allow adequate time for discussion by the faculty. The Council will meet on April 13 and May 4.

c, Prog file

UNIVERSITY OF
Miami
FACULTY SENATE

April 2, 1992

Dr. Kenneth J. Muller
Department Physiology and
Biophysics
Rosenstiel Medical Science Bldg. R 430

Dear Dr. Muller

Ph.D. Program in Neuroscience

This letter arises out of the Senate meeting on March 30, where the proposed Ph. D. program in Neuroscience was given its first reading. You will recall some of the questions that were raised. I would appreciate a response from you in time for the Senate Council meeting on April 13. According to my notes the questions are as follows:

1. Is it clear now that the previous practice of awarding Ph.D. degrees in Neuroscience associated with the name of the basic science departments will now cease. Is this being done with the agreement of the basic science departments that until now have followed this practice? What will be the situation with any Neuroscience students presently in the pipeline? Will they receive Ph.D. degrees with a department-associated name or will they become part of the new program and receive the Ph.D. in Neuroscience? It is important to clarify this point in time for the Senate Council meeting and the second reading of the proposal on April 27. Personally, I would see no problem with having "old" and "new" students in separate tracks, the old students getting the department-associated degree, and the new students getting the new-title degree. If an old student wished to transfer and this was with the approval of the Program Committee, presumably that would be in order also.

2. You will recall the comment that the names of some of the graduate students said to be associated with the Program were not accurate or out-of-date. If you could prepare an update of the associated students and of the faculty, including the recent additions, that would also be helpful.

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

3. Finally, please clarify or refer us to the appropriate place on the proposal that indicates how the Steering Committee is elected.

Thank you.

Yours sincerely,

W. J. Whelan
Chair, Faculty Senate

WJW/ca

cc: Prof. Robert Warren

Proposal for a Ph.D. Degree in Neuroscience (First Reading)

Vice Chair Brass introduced the proposed Ph.D. degree in Neuroscience and indicated that the Senate Council had forwarded the proposal without recommendation, due to the incompleteness of the proposal. Dr. Robert Warren, chair of the ad hoc review committee, presented a summary of the proposed Ph.D. degree in Neuroscience. The program is administered by a Steering Committee comprised of faculty from the involved departments and campuses. The program is requesting University-wide degree-granting status for the interdisciplinary program. Dr. Warren stated that the interdisciplinary trend nationwide has been attractive to potential students and those schools following this direction have found that both the number and quality of applicants have increased. Dr. Warren informed the Senate that approvals from the faculties of RSMAS and the College of Arts and Sciences are still required. Questions were raised about RSMAS' involvement in the program, admission of students in neuroscience-related fields, the discontinuance of the established set of degrees associated with departments, and the establishment of a new interdepartmental degree and the procedures to be used for admission to the program. It was suggested that the Graduate School should develop guidelines for this type of interdepartmental program not having a department to grant the degree. It was *moved* and seconded to request the Senate Council and the sponsors of the program to prepare addenda clarifying the matter of what present students and faculty will be involved, a precise statement of the status of the existing and proposed degrees, any questions pertaining to the status of faculty raised on pages 9 - 11 in the proposal, and specifics on how the eight faculty members comprising the Steering Committee are elected from the participating units. The *motion carried*.

Proposal for a Master of Fine Arts Degree in Creative Writing (First Reading)

Dr. Johnson, chair of the ad hoc review committee, presented the proposal for a Master of Fine Arts degree in creative writing, without recommendation from the Council. She indicated that the committee endorsed the proposal and noted that the Ph.D., D.A. and M.A. degrees in the creative writing track will be abolished upon the approval of the M.F.A. degree. Questions were raised concerning the funding for the program, and the recruiting of students. Dr. Zack Bowen, Chair of the Department of English, stated that the department has received a $1M gift from James Michener and indicated that interest in the program is expanding nationwide. The possibility of cooperating with the film program in the School of Communication is being explored. It was *moved* and seconded that the Council formulate a motion authorizing the M.F.A. degree and the termination of the three degrees cited by the Chair of the English Department. The *motion carried*.

UNIVERSITY OF Miami

SCHOOL OF MEDICINE

March 26, 1992

Prof. W.J. Whelan
Chair, Faculty Senate
325 Ashe-Admin. Bldg.

Dear Dr. Whelan:

I am writing in response to your letter of March 18 asking that I let you know by today about the support for the proposed Neuroscience Program from the faculty of Schools at Coral Gables and RSMAS, as well as particulars on RSMAS faculty participation in the Program.

In fact, our member from RSMAS, Peter Lutz, left the institution. Last week we received a CV by FAX from Daniel Baden, who was admitted as a full member after I polled the Steering Committee. The day before yesterday Michael Schmale's application and CV were delivered to us, and I am pleased to say that at a Steering Committee meeting this afternoon he too was approved for full membership in the Program. I anticipate that this will rejuvenate participation by the RSMAS.

On April 8 at 2PM the faculty of the RSMAS is meeting and shall vote on whether they support the proposed program. As you might know, the Arts and Sciences School Council has approved participation in the Program. Should this approval be considered inadequate, I understand that the full faculty could consider the Program at its meeting on April 15, but the Dean apparently does not consider such approval of the full faculty necessary for this Program which is not based within the School of Arts and Sciences.

Concerning biographical sketches of faculty in the program, we have five new full-members who have joined since last fall when we submitted our Proposal. These are Paul Shapshak (Psychiatry), Brenda Lonsbury-Martin (Otolaryngology), Glen Martin (Otolaryngology), Daniel Baden (RSMAS), and Michael Schmale (RSMAS). I shall forward copies of their CV's to you.

Please call or FAX (547-5931) if you have additional questions.

Sincerely,

Kenneth J. Muller
Chairman, Neurosciences Program
Steering Committee

Neurosciences Program (R-430)
P.O. Box 016430
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33101
(305) 547-3368

C: Pending, WW

UNIVERSITY OF
Miami
FACULTY SENATE

March 18, 1992

Dr. Ken Muller
Department of Physiology and Biophysics
RSMB, R-430

Dear Dr. Muller:

Ph. D. Program in Neurosciences

On March 16 the Senate Council considered the proposal for an interdisciplinary neurosciences program leading to the Ph. D.

It received favorable reports from the Graduate Council and an ad hoc Committee of the Senate, appointed to review the proposal.

The Council voted to forward the proposal to the Senate for a first reading, but without comment. It did so because of a lack of information to corroborate the statement in the Purpose and Goals of the Program concerning participation by "departments at the Coral Gables and RSMAS campuses."

We did receive a statement of support from the Council of the School of Medicine in respect of its participation. We expect to receive similar statements on behalf of the other participating campuses. Since several Schools and Colleges are located at Coral Gables, please supply the appropriate statement for each such unit, as well as for RSMAS. We may note in the case of RSMAS that no faculty participation is listed nor is a biographical sketch provided for any RSMAS faculty member.

For this material to reach the Senators in time for the first reading, your response should reach the Senate Office by March 26.

Yours sincerely,

W. J. Whelan
Chair, Faculty Senate

WJW/ca
cc Vice Provost Paul Sugrue
Prof. Robert Warren

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

FAXED 3-18-92

UNIVERSITY OF Miami

COLLEGE OF ARTS AND SCIENCES

Office of the Dean

MEMORANDUM

March 17, 1992

TO: Paul K. Sugrue, Senior Vice Provost and Interim Dean of the Graduate School

FROM: Paul H. Blaney, Associate Dean

SUBJECT: Neuroscience Program

The Arts and Sciences College Council has reviewed the "Proposal for University-Wide Neuroscience Program." The Council approves of this proposal, provided that tuition waivers in the College's budget are not used to support students in other schools.

PHB:ek

cc: William J. Whelan, Chairman
Faculty Senate

P.O. Box 248004 • Coral Gables, Florida 33124-4620 • 305-284-4117 • Fax: 305-284-5637

Matters Arising from the Minutes and not dealt with separately

Professor Brass, Vice Chair, introduced the matter of the Ocean Pollution Research Center and requested that the Center be considered a Sponsored Center in the Rosenstiel School. Any members of other schools participating will be given secondary appointments in RSMAS so that it will remain a center within the School and will require only the approval of the name. It was *moved* and seconded to amend the proposal as an Institute or Sponsored Center as outlined in Bylaw 6.6 of the *Faculty Manual* and, at some future time if the Center becomes a school-wide center, then a request will be made to make it an Independent Center. The *motion carried.*

Guidelines for Submitting a Proposal for a New Graduate Degree Program

The Chair suggested that a checklist and instructions, including the approval of other schools having an interest in the program, be attached to the Guidelines to assist the review committees. It was *moved* and seconded to instruct the Chair to formulate the necessary addendum. The *motion carried.*

Proposed Ph.D. Degree in Neuroscience

Professor Robert Warren, Chair of the Senate ad hoc Review Committee, presented the report of the Committee, on the proposed Ph.D. degree in neuroscience, long with the Graduate Council's letter of approval and Dr. Kenneth Muller's response to the outside reviewers' report and the Committee's report. The basic science department chairmen and the School of Medicine School Council had also submitted letters of support. The College of Arts and Sciences must still discuss the proposal and submit their letter of support. Professor Warren stated that the basic issue of the process is that a non-departmentalized program is applying for degree-granting status. He also noted that the Graduate Council and the outside reviewers' committee both recommended that Dr. Muller, Chairman of the Steering Committee of the Neuroscience Program, should be given the title of Director. Vice Provost Sugrue indicated that he had received a letter from the School of Medicine committing to funding the program by providing secretarial assistance and two new stipends each year. Each student will receive support for two years. Professor Warren stated that a program training grant will be sought to supplement the University's support. It was *moved* and seconded to agenda the proposal, without recommendation from the Council, and accompanying letters for the scheduled Senate meeting on March 30. The absence of a recommendation was due to the Council not having all necessary approvals at hand. In response to a query about the oversight of the students' progress, Professor Warren stated

that a steering committee will be responsible for academic and policy-making decisions. A three-person committee will be appointed to provide advice and guidance to the students. It was pointed out that the school faculty must also vote on proposed programs unless the appropriate school council is given explicit authorization on an annual basis to act for the faculty. *The motion carried.*

President Foote's Proposals on the Faculty Appointment System

It was *moved* and seconded to agenda the President's proposals for the Faculty Senate meeting of March 23. The *motion carried.*

Proposed Degree of Master of Fine Arts in Creative Writing

Professor Johnson, Chair of the ad hoc committee to review the proposed Master of Fine Arts degree in Creative Writing, stated that the committee endorsed the program and hoped that the Council would recommend to forward it to the Senate. Financial support for the program will come from the James Michener Endowment, the Summer Caribbean Institute, and reallocated funds from the pt/ot budget for English 105 and 106. The College of Arts and Sciences has pledged to fund up to 20 TAs. The strong Ph.D. and M.A. programs in English will offer the M.F.A. in Creative Writing academic support in literature and in criticism, lacking in other programs in the state. She recommended stronger library collections from the ones recommended by the outside reviewers, and suggested that the Council request a detailed breakdown of a three-year budget, including appropriate allocations of overhead, costs for travel, library allocation, clerical support, advertising and recruiting costs, and the extent to which directing resources to this program will impact on others areas. It was *moved* and seconded to request such a budget breakdown from the Chair of the English Department, including approval of the College faculty, completion of the guidelines and the endorsement of the Dean of the College and the Provost. *The motion carried.* It was *moved* and seconded to delegate the Chair to request the documents before March 23, and agenda discussion of the program for the next Senate meeting on March 23. *The motion carried.*

Schedule of Senate and Council Meetings During the Reminder of 1991-92

It was agreed to move the second reading of the President's proposals to April 6 and the first and second readings of the new degree programs to March 30 and April 27 to allow adequate time for discussion by the faculty. The Council will meet on April 13 and May 4.

UNIVERSITY OF Miami

March 16, 1992

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

FROM: Paul K. Sugrue, Sr. Vice Provost
and Interim Dean of the Graduate School

SUBJECT: Proposal for Neuroscience Ph.D. Program

The Graduate Council unanimously approved the proposed Ph.D. program in Neuroscience at its March 16, 1992 meeting.

I have previously forwarded a copy of the proposal and the external reviewers' report. I am now enclosing a copy of the response of the Steering Committee Chair and the recommendations of the subcommittee of the Graduate Council.

PKS/msb

Enclosures

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UNIVERSITY OF
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SCHOOL OF MEDICINE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821

March 4, 1992

Dr. Paul Sugrue, Acting Dean
Graduate School

Dear Dr. Sugrue,

I am writing in response to what seems to me to be a quite favorable report by Drs. Hatten and Hildebrand on the proposed University-wide Neuroscience Program. As you know, the reviewers visited the University last week and met with you, Dr. Glaser, Dean Bernard Fogel, all students and many faculty in the existing department-based program, including with me and the other members of the Program Steering Committee. The reviewers raised a number of points that need to be addressed, many touching on issues that were thoughtfully considered by the Program Faculty and Steering Committee in consultation with Department Chairpersons, the Provost, Graduate School, and others as the proposal was assembled.

All the suggestions of the two reviewers seem constructive, and in many cases the program would be improved by implementing them. It is important to recognize these, but not to abandon features of the proposed Program that might work particularly well at Miami. In the following paragraphs I will try to address the reviewer's specific points.

Program Organization. I write for the Steering Committee in supporting the proposed leadership by its Chairperson, which in practice differs little from the Directorship proposed by reviewers. The Chairperson has essentially all the day to day powers of a Director, but he/she can freely call upon the Committee Members for help with running the program. Aside from partial salary support, other support for the proposed program has already been assured by the Provost and Medical School Dean, and we are obtaining letters that shall indicate this. This includes student stipends and related expenses, support for a half-time secretary/administrator, office expenses, and student recruiting expenses.

Space is a more difficult issue, but I think we have satisfactorily dealt with it. I have adequate office space for myself and a half-time administrator. Office space for students is being provided a few floors away together with that for students in Cell and Molecular Biology. The student room shall be equipped with carrels, computers, and other office equipment. Although this places the students at a slight distance from the Program Office, it has the great advantage of bringing graduate students in related

(continued)

disciplines together. I think that particularly when our program is small and in its formative stages, forming a critical mass of students in this way will be an asset.

Academic Program. Not until the formulation of our Program Proposal have we had such a clearly stated set of guidelines for students and faculty. The proposal will form the basis of a Program Handbook as conceived by the reviewers. We are about to hire a half-time secretary/assistant for the program, and this person will be of enormous assistance in compiling the Handbook.

The current Neurosciences Program has, under the direction of Dr. Lincoln Potter, run a successful seminar series like that proposed by the reviewers. Certainly funding for such a series would be of inestimable help.

We discussed with the reviewers a range of techniques that we use to teach students skills in writing, speaking, and thinking about science in a critical, ethical fashion. Supervised teaching is available to students in departments as a component of their training, and I can speak for the Steering Committee in saying that we shall incorporate supervised teaching by our students into their training program.

Faculty. The Steering Committee has drawn up a series of criteria for membership that it has applied consistently to select Program Members. These are stated in the Proposal, but shall be circulated among potentially eligible faculty.

I agree with the reviewers that it shall be important for there to be encouragement of and recognition of participation in the Neurosciences Program, but in practice I think such policy already exists. Moreover, from my experience on the P & T committee, I am satisfied that University-wide service is rewarded.

In sum, I am delighted with the support given our Proposed Program by the reviewers. I hope that it aids its speedy approval by the Graduate Council and the Faculty Senate.

Sincerely yours,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman of the Neuroscience Program
Steering Committee

UNIVERSITY OF Miami

M E M O R A N D U M

March 6, 1992

TO: Graduate Council

FROM: Special subcommittee for the Neuroscience Program
Dr. Llabre, Psychology
Dr. Hsia, Biochemistry
Dr. Cowman, Dental Research (VA)
Dr. Olson, MPO, RSMAS
Dr. Carlebach, Communication

SUBJECT: Proposal for Ph.D. in Neuroscience

The subcommittee strongly and enthusiastically recommends the approval of this interdisciplinary Ph.D. program. This recommendation is in accordance with the external reviewers positive recommendation.

> "Overall, the proposed Neuroscience Program will consolidate impressive faculty and physical resources of the University into a coherent, integrated academic enterprise spanning the entire institution."

The subcommittee feels that this proposed program should serve as a fine model for future interdisciplinary programs among departments throughout the University.

We suggest the following specific recommendations regarding implementation of the program:

Home School. Although the program is interdisciplinary and will involve departments in more than one school, the primary home should be in the School of Medicine.

Program Director. The recommendation of the external reviewers that the Steering Committee Chair be designated as Program Director should be complied with.

We feel strongly that the position be on a more equal standing with department chairpersons in dealing with program matters and that the title "director" is important. We further recommend that this director report directly to the Dean of the Medical School with regard to matters related to the program.

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Selection of participating faculty. The requirement that participating faculty be members of the Graduate Faculty should be added to the criteria specified in the proposal. The specific requests for participation should be circulated to all faculty with a potential interest in the program, and the subcommittee further recommends that this criteria be consistently applied.

Space. All efforts must be made to find permanent space for an administration office for the program.

Resources. The subcommittee strongly recommends that compensation be provided for the program director.

PKS/msb

Report of the Faculty Senate Subcommittee
on the Proposal for a Degree-Granting, Inter-disciplinary,
Neuroscience Program
March 16, 1992

The Neuroscience Program proposal has been reviewed by a Faculty Senate Subcommittee whose members are Professors Michael Carlebach (Communication), William Evoy (Biology), Peter Tarjan (Biomedical Engineering), and Robert Warren (Cell Biology and Anatomy). The proposal is carefully written, thorough, and deals systematically with the points 1-8 in the Guidelines published by the Graduate School. In the opinion of the Subcommittee, the proposal is meritorious and would provide a beneficial consolidation and strengthening of neuroscience graduate training programs at the University into one degree-granting program.

The Subcommittee notes the following strengths of the proposal. First among these is the fact that the Proposal is an outgrowth of an existing Neuroscience Program that was established five years ago but which awards degrees only through the individual Departments in which its members reside. The faculty of the proposed program are essentially those with membership in the existing program, and it will not be necessary to hire new faculty to implement the proposed program. The research laboratories, equipment, and library resources for the proposed program are already in place and are adequate to meet its needs. Although recruitment of students to the existing program began slowly, it now has five students, and their entrance qualifications and grade point averages in the program indicate that high standards have been maintained in student selection thus far. No new courses will need to be developed for the proposed program since the existing courses are sufficient. The University has already dedicated funds to support stipends for the recruitment of two new students per year and to provide support for those students over the first two years of their training. Finally, it should be noted that the field of neuroscience research is thriving and should continue to attract a significant share of the available grant funds. Well-trained and innovative graduates of high-quality programs should be competitive for positions in academia and industry.

The Subcommittee has had an opportunity to evaluate the report of the outside reviewers of the Neuroscience Program proposal. The overall report is favorable; the reviewers found the quality of the facilities, the faculty, and the organization of the Program to be excellent, and they felt that the proposed Program "...if given appropriate levels of support....is likely to be highly successful, creating a cohesive community of neuroscience faculty committed to the education of outstanding doctoral students". A number of constructive suggestions regarding the Program were also made, and these have been addressed in a letter of response from Professor Ken Muller, the Chair of the Program Steering Committee.

Members of the Faculty Senate Subcommittee have expressed some concern regarding the level of stipend support for graduate students that is outlined in the proposal. The Program is designed to provide full stipends for the first two years of training, after which time the chosen mentors for the research projects are expected to cover the stipends out of their own research grants. Members were concerned for the possibility that a student might have a limited choice of mentors or be forced to change to a new mentor were a program member to lose a grant. In response to this concern, Dr. Muller indicated that the Steering Committee has grappled with this issue. They acknowledge that such a problem could arise, but as Dr. Muller notes in his letter of response to the Subcommittee report, funds could be shifted around within the Program to cover such a contingency. In the longer term, the Program Steering Committee expects to submit proposals for major Training Grant support to augment the University contribution to the Program.

The Subcommittee agrees with the outside reviewers that the quality of the research areas included in the Neuroscience Program Proposal is high. While it is clear that a developing program must build to existing strengths within the University, the Subcommittee notes that there are graduate students in various existing programs in the University who would be interested in pursuing the applications of computer modeling at the cellular and systems level in neuroscience. Such approaches are under-represented in the proposed program, and the steering committee is urged to consider ways in which such interests could be accommodated in the future.

In reviewing the courses listed in the Program, the Subcommittee notes that offerings from several different departments are listed, including some that are part of the curriculum for first and second year medical students. Although no difficulties are anticipated due to the relatively small numbers of students involved, it would be advisable for the Program Steering Committee to obtain formal approval from the Departments for the listing of these courses.

The members of the Faculty Senate Subcommittee recommend approval of the Neuroscience Program with the inclusion of the modifications that have been agreed to by Professor Muller. Such a program, when it is implemented, would bring the University of Miami into the mainstream of a general trend toward inter-disciplinary programs that transcend the boundaries of more narrowly defined, departmentally-based, training programs in life sciences. Such broadly-based programs, which can provide graduate students with much greater flexibility of choice among possible mentors, have proven very advantageous in recruitment of high quality students at the numerous institutions which have implemented them over the last ten years. Thus, while the

creation of a non-departmental Ph.D. program in life science represents a new direction for the University of Miami, it is in fact a pathway that is now considered to be the norm at many of the best institutions in the country.

For the Committee:

Robert Warren

Robert Warren, Chairperson

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
P.O. Box 016430 (R-430)
Miami, Florida 33101
(305) 547-6821

March 9, 1992

Faculty Senate Subcommittee on the Proposal
for a Degree-granting Neurosciences Program

Dear Committee Members:

Thank you for sharing with me your report of March, 1992. We on the steering committee of the Neuroscience Program appreciate your thoughtful consideration of our Proposal. As you have recognized, the proposed Program shall be virtually identical in its membership and design to the old, except that it shall award degrees independently of departments. I should like to address some of the points you raise.

Quite rightly you have asked about continued stipends for students whose mentors have lost grant support. In fact, in the current funding climate this is an issue that could easily arise, although it is hoped that the loss of funding would be only temporary and brief. We on the steering committee have agreed that students with unfunded mentors would be supported with a Program stipend that would otherwise go to an incoming student not yet selected, thus we would reduce the number of new students until the mentor could resume support. Of course, because the Program's stipends should support students throughout their first two years, it is not until after then that this could be an issue.

Among the important areas of Neuroscience that are under represented in the Proposed Program is computational neuroscience. We have encouraged faculty with interests in this area to apply for affiliation and membership, and we shall continue to encourage participation in the Program by neuroscientists throughout the University. Nobody is to be excluded or unrepresented on the basis of departmental affiliation.

Having been alerted to your concern that we obtain permission from individual departments to include their courses in our core curriculum, I have obtained such permission from the Chairmen of the 3 basic sciences departments offering such courses. Copies

(continued)

of letters with their signatures confirming their approval have been given to your subcommittee. The originals have been sent to Dr. Sugrue, Acting Dean of the Graduate School. Another core course, Integrative Neuroscience, which is taught in the Biology Department, is a graduate course that was reorganized by the present Neurosciences Program primarily for its students, but of course enrollment by students not in the Program is most welcome.

I hope that I have answered questions you might have had about our program. Please contact me at any time at 547-3368 or 547-5963 should you have additional questions or comments.

Sincerely,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman, Neuroscience Program
Steering Committee

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

March 6, 1992

MEMORANDUM

To: Bernard J. Fogel, M.D.

From: Basic Science Chairs

Subject: Neuroscience Graduate Program

On the basis of our recent meeting and discussions we would like to affirm our support of the Neuroscience Graduate Program. We would also like to commend Dr. Ken Muller and the steering committee for their diligent efforts in developing this program. We hope that the program will receive the necessary resources from the School of Medicine and University to make it successful.

Keith Brew
Biochemistry and Molecular Biology

Werner R. Loewenstein
Physiology and Biophysics

Kermit L. Carraway
Cell Biology and Anatomy

James D. Potter
Molecular and Cellular Pharmacology

Ernest Y. C. Lee
Biochemistry and Molecular Biology

J. Wayne Streilein
Microbiology and Immunology

Department of Cell Biology and Anatomy (R-124)
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Miami, Florida 33101
Tel: (305) 547-6691 • Telefax: (305) 545-7166
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33101

UNIVERSITY OF Miami

SCHOOL OF MEDICINE

MEMORANDUM

TO: Dr. William Whelan
Chair, Faculty Senate

FROM: Nancy L. Noble, Ph.D.
Associate Dean for Faculty Affairs

RE: Neuroscience Program
University of Miami

DATE: March 12, 1992

The Faculty School Council of the School of Medicine at a special meeting 03/11/92 unanimously approved the proposal for a University-wide Neuroscience Program to "train highly qualified individuals for independent research and teaching careers in Neuroscience."

NLN:xp

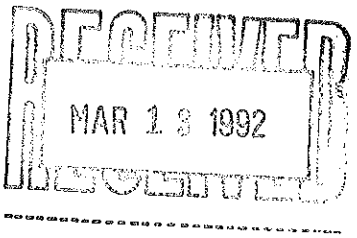
cc: Dr.B.J.Fogel
Dr.W.Awad, member, Faculty Senate Council
Dr.R.Warren, member, Faculty Senate Council
Dr.K.Mueller, Chair, Steering Committee
Dr.L.Glaser
Sch.Council file
Files xp

Associate Dean for Faculty Affairs
Room 2017A Sewell Building (D 2-6)
P.O. Box 016960, Miami, Florida 33101
Location: 1475 N.W. 12th Avenue
(305) 547-6551-6458

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

March 13, 1992

MEMORANDUM



To: Dr. William J. Whelan

From: K.L. Carraway

The attached memorandum was sent to Dr. Fogel after our recent meeting concerning the Neurosciences Program. I have also given a copy of this to Bob Warren as the Faculty Senate representative concerned with the review of this program. If more input is needed from the Basic Science chairs, please contact me.

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Miami, Florida 33101
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Location: Rosenstiel Medical Sciences Building
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UNIVERSITY OF Miami

SCHOOL OF MEDICINE

MEMORANDUM

TO: Dr. William Whelan
Chair, Faculty Senate

FROM: Nancy L. Noble, Ph.D.
Associate Dean for Faculty Affairs

RE: Neuroscience Program
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UNIVERSITY OF Miami
SCHOOL OF MEDICINE

March 6, 1992

MEMORANDUM

To: Bernard J. Fogel, M.D.

From: Basic Science Chairs

Subject: Neuroscience Graduate Program

On the basis of our recent meeting and discussions we would like to affirm our support of the Neuroscience Graduate Program. We would also like to commend Dr. Ken Muller and the steering committee for their diligent efforts in developing this program. We hope that the program will receive the necessary resources from the School of Medicine and University to make it successful.

Keith Brew
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UNIVERSITY OF
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Department of Physiology & Biophysics
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(305) 547-6821

March 5, 1992

Drs. K. Brew and E. Lee, Chairmen
Department of Biochemistry and Molecular Biology

Dear Drs. Brew and Lee:

I am writing to obtain your confirmation that your Department is ~~be~~ willing to include your course in Molecular Biology BMB 616 among the core courses required of students in the proposed Neurosciences Program. We anticipate that we shall have 2 to 5 students per year enrolling in the course, and that we shall request tuition waivers for them. It is understood that any student would need to have satisfied standard prerequisites for the course before taking it.

Sincerely yours,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman, Neuroscience Program
Steering Committee

We agree to this request.

Keith Brew

Ernest Lee

Co-Chairs, Department of Biochemistry and Molecular Biology.

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
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Miami, Florida 33101
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March 5, 1992

Dr. Werner Loewenstein, Chairman
Department of Physiology and Biophysics

Dear Prof. Loewenstein:

I am writing to obtain your written permission to include your Department's courses Principles of Membrane Physiology & Biophysics (PHS 641/642) and Neurophysiology (PHS 511) among the core courses required of students in the proposed Neurosciences Program. We anticipate that we shall have 2 to 5 students per year enrolling in the course, and that we shall request tuition waivers for them. It is understood that any student would need to have satisfied standard prerequisites for the course before taking it. Should the courses be discontinued, the Program would be responsible for finding alternatives.

Sincerely yours,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman, Neuroscience Program
Steering Committee

Approved by:

Werner R. Loewenstein
Professor and Chairman

UNIVERSITY OF
Miami
SCHOOL OF MEDICINE

Department of Physiology & Biophysics
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Miami, Florida 33101
(305) 547-6821

March 5, 1992

Dr. Kermit Carraway, Chairman
Department of Cell Biology & Anatomy

Dear Dr. Carraway,

I am writing to obtain your written permission to include your Department's courses Neuroanatomy (CBA 505) and Cell Biology (CBA 651) among the core courses required of students in the proposed Neurosciences Program. We anticipate that we shall have 2 to 5 students per year enrolling in the course, and that we shall request tuition waivers for them. It is understood that any student would need to have satisfied standard prerequisites for the course before taking it. Should the courses be discontinued, the Program would be responsible for finding alternatives.

Sincerely yours,

Kenneth J. Muller
Professor of Physiology
and Biophysics
Chairman, Neuroscience Program
Steering Committee

Approved

UNIVERSITY OF Miami

March 4, 1992

CONFIDENTIAL

TO: Dr. William Whelan, Chairman
Faculty Senate

FROM: Paul K. Sugrue, Sr. Vice Provost
and Interim Dean of the Graduate School

SUBJECT: External Report on Neuroscience Program

Attached is a copy of the external reviewers' report on the Neuroscience program proposal. This should be treated in a confidential manner and shared only with appropriate individuals.

PKS/msb

Enclosure

Graduate School
P.O. Box 248125
Coral Gables, Florida 33124-2220
(305) 284-4154

CONFIDENTIAL

Review of the Proposal for a University-Wide Neuroscience Program at The University of Miami

SUMMARY

The proposed initiative would provide an interdisciplinary, University-wide, predoctoral Neuroscience Program, drawing faculty from eleven departments at the Coral Gables, RSMAS, and Medical School campuses. This proposal to establish a committee-based, Ph.D. degree-granting program in the field of neuroscience addresses an important general goal: to foster the development of integrated interdisciplinary programs in general at the University. Neuroscience, as a field characterized by interdisciplinary approaches to research problems, is an ideal "experimental system" for the development of such programs at Miami. Overall, the faculty and existing laboratory, library, and other research facilities are excellent.

The proposed Neuroscience Program will be administered by a Steering Committee comprising eight elected faculty representatives from the eleven participating departments, distributed according to a reasonable plan outlined in the proposal. Primary responsibility for the administration of the Program will be vested in the Chair of the Steering Committee, elected from the committee membership on a rotating basis. Supervision of student recruitment, advising, laboratory rotations, curriculum development, qualifying examinations, and requirements for the dissertation are to be responsibilities of members of the Steering Committee. Faculty membership in the Neuroscience Program will also be established on the basis of criteria set by the committee. The proposed Neuroscience Program, if given appropriate levels of support, as outlined below, is likely to be highly successful, creating a cohesive community of neuroscience faculty committed to the education of outstanding doctoral students.

We recommend that the Neuroscience Program, if approved and constituted, participate actively in the Association of Neuroscience Departments and Programs (ANDP) and maintain up-to-date listings in *Peterson's Graduate Programs in Biological & Agricultural Sciences* and the *Neuroscience Training Programs in North America* directory, previously prepared by the Society for Neuroscience and now the responsibility of the ANDP.

CRITIQUE

The proposal presents a well-conceived plan to establish an interdisciplinary degree-granting Neuroscience Program. Faculty support for the project is high, pending the provision of required space and financial support by the University. Implementation of the Program will represent a fundamental change in the organization of graduate education at the University of Miami, as this will be the first committee-based, degree-granting program to function independently of the traditional departmental organization of the institution. A critical element in the success of the Program will be the allocation, by the University Administration, of sufficient resources to establish the Program ensure its vitality. Specific concerns that should

be addressed include the following:

1. Organization of the Program

Although the concept of a Steering Committee as the sole executive body for an interdisciplinary degree program represents an ideal, we believe that the organization and operation of an excellent program from so many diverse faculty elements will require the dedicated leadership of one dedicated and energetic person. We therefore recommend that a Director be appointed. The Director would act -- not independently of, but in consultation with -- the Steering Committee. We further recommended that the University provide supplementary salary support for the Director, to compensate her/him time for the major commitment of time and effort that will be required to make the Program a success and to recognize the far-reaching responsibilities she/he will have to assume.

We were impressed by the vision and passion expressed by Dr. Ken Muller. In view of his broad view of the field of neuroscience, his previous experience in neuroscience programs, his dedication to this enterprise, and his high level of energy and commitment, we believe that he would be an excellent "founding Director" for the newly constituted Program. We therefore recommend that he be invited to serve in this role.

The University should also provide, on a long-term basis, funding for a half-time administrative assistant to the Director, to administer the day-to-day activities of the Program. As outlined in the proposed budget, funds will also be required to equip an office (photocopy machine, fax machine, office computer, etc.) and to cover the annual operating costs of the program (e.g. stationery, postage, telephone, publicity, student-recruitment costs, seminar series, etc.).

In addition to financial support, we strongly recommend that the University provide space for a Program office (where the administrative assistant will work) and for students. Provision of a facility for first-year students (equipped with desks, a computer for word-processing, a small library, a chalk board, etc.) is particularly important, lest the students in this non-departmental Program be deprived of an academic "home" and have no place to congregate, study, and consult with the Program office. Current plans to house students from several interdisciplinary programs in a single facility are inadequate. Space dedicated to the Neuroscience Program will be needed for it to have a tangible presence in the University and will be essential to building a strong sense of community among students and faculty. This goal to foster community and networking is especially important, given the wide distribution of neuroscience research laboratories throughout three University campuses.

2. Academic Program

The establishment of a Neuroscience Program as an independent, multidisciplinary enterprise at the University of Miami will require a strong focus on the cohesion of the Program, especially the advising and mentoring activities of the faculty participants. We recommend that

specific requirements and regulations be formalized for the proposed Program and that, together with relevant University regulations, they be gathered together in a Program Handbook and provided to students and faculty. Currently, under the existing neuroscience program, it seems that different members of the Steering Committee sometimes present different requirements to individual students on an apparently ad hoc basis.

A major factor in the success of the Program will be the establishment of an annual series of research seminars in the field, a majority of which should be presented by invited speakers from outside the University. Such a seminar series would draw the community together on a regular basis. University funding should be provided to establish such as series, in view of the fact that the Program will be independent of the existing Departmental structure.

In keeping with current national trends and in order to prepare students for future professional careers, new areas of graduate education not discussed in the proposal should be incorporated into the Program curriculum. Thus it is important to help graduate students develop effective writing and teaching skills and to confront ethical issues in contemporary science. Wherever possible (research-group meetings, journal clubs, laboratory rotations, examinations, meetings of dissertation-advisory committees, etc.), the students should be asked to provide written summaries of their research and statements of the aims of future work. Moreover, it will be important to sponsor an annual series of informal work-in-progress seminars at which the students can develop their speaking skills. All students should also have some form of teaching experience. The development of "mentoring" programs to provide forums for discussions of career goals, development of professional "survival skills" (preparation of grant proposals, management of funds, teaching methods, etc.) and scientific ethics would also strengthen the Program.

The development of these programmatic aspects -- clear guidelines, advising, mentoring and development of professional skills -- of the training effort in neuroscience will be of broad utility to the University's efforts to establish other interdisciplinary programs. We therefore recommend that the University commit sufficient resources for the Neuroscience Program to get off to a running start as a "demonstration program."

Plans for recruitment of students are in place, including a new poster and brochure advertising the Program. At least in the early years of the Program, it will be important for the University to provide funding to support this publicity effort.

3. Faculty

A crucial programmatic issue is the development of clear criteria for faculty membership in the Program. As proposed, the Steering Committee will review the productivity of faculty on a regular basis. The specific criteria for these reviews should be drawn up and circulated. Unless the University maintains a Graduate Faculty based upon comparable standards, admission of faculty to the Program and reviews of their performance in it should be carried out by the Steering Committee.

An important concern of the faculty, not addressed in the proposal, will be recognition, by both the University administration and the faculty members' home departments, of faculty participation in the Program. To encourage active faculty participation and ensure its proper recognition, official University guidelines for assembly and review of promotion and tenure portfolios should specify that participation in interdisciplinary programs must be described, evaluated, and credited in the P&T process. Thus faculty responsibilities to interdisciplinary programs such as the proposed Neuroscience Program should be viewed on an equal footing with responsibilities in Departments.

CONCLUSION

Overall, the proposed Neuroscience Program will consolidate impressive faculty and physical resources of the University into a coherent, integrated academic enterprise spanning the entire institution. The formal establishment of this Neuroscience Program will foster the development and flourishing of the neuroscience community. The neuroscience faculty already in place in the University of Miami is excellent, and the proposed Neuroscience Program, if supported with allocations of funds and space and led by a dedicated and imaginative Director, is likely to be highly successful.

Respectfully submitted,

Mary E. Hatten, Ph.D.

John G. Hildebrand, Ph.D.

2 March 1992

SENATE

March 3, 1992

Dr. Paul K. Sugrue
Senior Vice Provost
University of Miami
240 Ashe Bldg.
Miami, FL 33124-4628

cc: Robert Warren

Dear Paul:

Ph.D. Program in Neurosciences

You know that I tried to reach you on February 26 concerning the Ph.D. program in neurosciences but you were away at the time. The urgency of my request on February 26 was in connection with the visit by the external _____ where in light of the letter received from the Basic Science Chairman dated February 20 and which I copied to you. It seemed to me desirable that some contact should be made. It was not possible to arrange this.

However, since I also learned that the program had not been discussed, that the council of the School of Medicine and it was meeting that day at 4 pm, I arranged with Robert Warren that the message should be raised. Bob is the Chairman of the Senate Committee that I have appointed to review the program. He is now arranging a meeting at his Committee with the Basic Science Chairman and it is planned that there will also be a special meeting at the School of Medicine Council to discuss. In addition, Bob is taking it on himself to see that the program is brought before the Council of the College of Arts and Sciences, which will be necessary since Arts and Science faculty are involved in the program. We hope that all this can be done in a timely manner so to have all necessary prior steps completed by the date of the Senate Council meeting on March 16.

Yours sincerely,

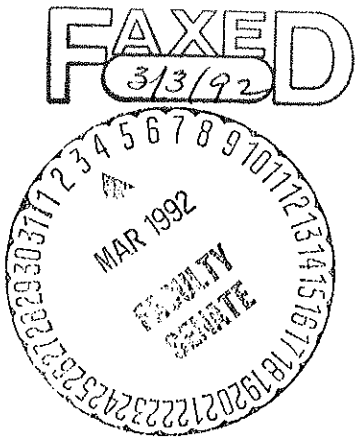
W.J. Whelan

WJW/mg
(sugrue)

UNIVERSITY OF Miami

COLLEGE OF ARTS AND SCIENCES

Office of the Dean



MEMORANDUM

March 3, 1992

TO: Dr. William J. Whelan, Chairperson
Faculty Senate

FROM: Ross C Murfin, Dean

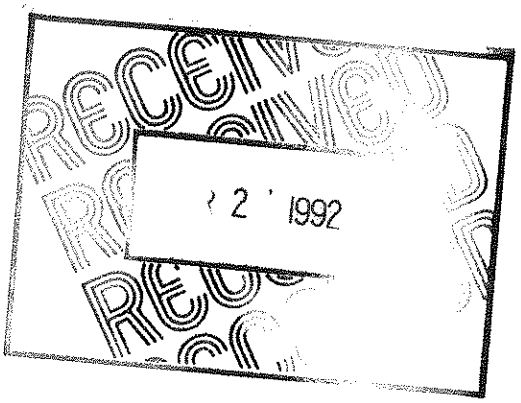
SUBJ: Proposed Neuroscience Ph.D. Program

In order to accommodate the Graduate Council, we have moved up our March meeting of the College Council from March 23 to Monday, March 16, at 3:00 o'clock.

We simply cannot get everyone together sooner than that. The week of March 9th is spring break, and this present week is impossible for all concerned. I am sorry that plans are being held up, but I never heard of the proposed program until Friday, February 28.

RCM:NT

P.O. Box 248004 • Coral Gables, Florida 33124-4620 • 305-284-4117 • Fax: 305-284-5637



TO: Dr. Whelan

FROM: Michele

DATE: March 1, 1992

RE: Graduate Advisors for the Basic Sciences Depts.

1) Anatomy: Dr. Melonie Pratt
Mrs. Maria Barba (Sec.)

2) Microbiology: Dr. Robert Levy
Mrs. Vivian Sanchez (Sec.)

3) Pharmacology: Dr. Anthony Casewell
Ms. Norma Jacobs (Sec.)

4) Physiology: Dr. David Landowne
Ms. Katherina Florence (Sec.)

UNIVERSITY OF Miami
SCHOOL OF MEDICINE

February 26, 1992

Keith Brew
Kermit L. Carraway
Ernest Y.C. Lee
Werner R. Loewenstein
James D. Potter
J. Wayne Streilein

Dear Keith, Kermit, Ernie, Werner, Jim and Wayne:

I just received a copy (of which I wasn't copied) of your letter of February 20th to Bill Whelan regarding the proposed non-departmentalized program in the Neurosciences. Since some of you have "no knowledge of the proposal or the progress toward implementing the program", I thought you should have a copy of the proposal. I also understand that the Neuroscience Advisory Committee had copies of the program for each of the Basic Science Departments.

I must say, it is very hard for me to understand how virtually none of you had any knowledge of the Neuroscience Program when it has been discussed almost adnauseam for the past 18 months. If you have questions I would appreciate your directing them to the Deans Office, since I do not believe the Faculty Senate is the appropriate source of information for you. Your views should be expressed to that group at the appropriate time.

Sincerely yours,

Bernard J. Fogel, M.D.
Senior Vice President for
Medical Affairs and Dean

BJF/amf
cc: Dr. William J. Whelan

Attachment

Senior Vice President for Medical Affairs and Dean
P.O. Box 016099
Miami, FL 33101
305-547-6545 Fax 305-548-4888

Proposal for University-Wide Neuroscience Program

1. Rationale

a. Title of Degree: Ph.D. in Neuroscience

b. Purpose and Goals

The proposed Neuroscience Program is a University-wide program involving interdisciplinary training from 11 departments at the Coral Gables, RSMAS and Medical School campuses. The objective of this program is to train highly qualified individuals for independent research and teaching careers in Neuroscience. Graduate training is the major focus of the program with specific emphasis on cellular, molecular, and integrative approaches to Neurobiology.

Neurosciences at the University of Miami is exceptionally strong and represents a major strength of the institution. This is apparent from the amount of peer-reviewed funding obtained from national funding agencies (see section 7), the publication rate in major journals of the field, the number of editorships, seats on NIH Study Sections, and invited participation in national and international meetings. The proposed interdisciplinary, university-wide Neuroscience Ph.D. Program is a logical outgrowth of the existing departmental-based Neuroscience Program. The existing program has 50 participating faculty from the Medical School and Coral Gables campus, and these faculty have adequate laboratory space and extramural funds to support a Neuroscience Program. Thus, the framework is in place for an outstanding university-wide Neuroscience Program. Currently there are five students enrolled in the existing program, and the University has provided stipends to support them financially. These students receive training in Neuroscience, but the degree they will receive is offered through the individual basic science departments in which they conduct their dissertation research. The Neuroscience degree is an important component for any Neuroscience graduate program. The proposed program will bring faculty, research programs, and administration under a single umbrella that will provide a broader perspective than is possible within a single department. Such a program would expand the opportunities in graduate training at the University of Miami. It would also facilitate the recruitment of outstanding students, enhance the reputation of the University's Neuroscience training, and foster scientific interaction and collaboration among Neuroscience faculty and students at the University.

c. Demand and Job Market

Neuroscience is concerned with the development, organization, function, and diseases of the nervous system. These processes must be examined from a variety of perspectives including cellular and molecular biology, membrane biophysics, neurophysiology, neuroanatomy, neurochemistry, neuropharmacology, behavioral biology, and psychobiology. Further disciplines such as Neurology, Neurological Surgery, Pathology, and Ophthalmology have explored the pathophysiology and therapeutic strategies of neurological disorders and trauma to the central and peripheral nervous systems. In response to the need for a multidisciplinary approach to understand brain mechanisms and the pathophysiologic aspects of nervous system disorders, the field of Neuroscience has emerged over the last two decades. The Society for Neuroscience, which is the major scientific organization in Neuroscience, has grown dramatically from 500 members in 1969 to over 18,000 members in 1991. This recent figure includes approximately 4,000 student members. In the same period, doctoral programs in Neuroscience-related fields (including Ph.D. and M.D./Ph.D. programs) have increased from 96 to 340 programs (247% increase). Recognizing the growing importance of Neuroscience, the U.S. Congress passed a resolution that declared the 1990's as the Decade of the Brain. This elevated awareness has also led to an increase in federal funding for Neuroscience research. For FY 1991, Congress appropriated over one-half billion dollars for the National Institute for Neurological Diseases and Stroke (NINDS). The National Institute of Mental Health (NIMH) received almost three-quarters of a billion dollars for Neuroscience/behavioral research. Clearly, federal support for the Neurosciences is substantial. Within Florida only the University of Florida offers a Ph.D. degree in

MEDICAL SCHOOL CAMPUS

Rosenstiel Medical Sciences Building

Neuroscience facilities of the Miami Project to Cure Paralysis are located on the first floor of the Rosenstiel Medical Sciences Building. Approximately 12,000 sq. ft. of the first floor is devoted to Neuroscience laboratory space. These basic science laboratories were all completed between 1987 and 1989 and include facilities for tissue culture, electron microscopy, histology, behavioral testing, neurophysiology, biochemistry and immunocytology, and molecular neurobiology. Additional resources available on-site include darkrooms for the purpose of developing and printing images, an IBAS image analysis system, light and dark microscopy viewing areas, a survival surgery suite, an argon-laser facility, a dishwashing and sterilizing facility and a biochemistry laboratory. Three transmission and scanning electron microscopes are available.

The third, fourth, fifth, and sixth floors of the Medical Sciences Buildings include a number of individual and shared facilities in the Departments of Cell Biology and Anatomy, Molecular and Cellular Pharmacology, and Physiology and Biophysics. Approximately 50,000 square feet of space is committed to current Neuroscience faculty and is available to the Neuroscience Program. Individual laboratories of Neuroscience Program participants together contain at least 28 computerized electrophysiological set-ups for voltage clamping, patch clamping, and intracellular recording that use inverted and upright compound photomicroscopes employing interference and fluorescence optics. High-resolution optical recording includes 5 on-line computerized image analysis systems and a custom optical recording setup using voltage sensitive dyes. The laboratories have 15 tissue culture hoods and numerous dissecting stations, microelectrode pullers, incubators, spectrophotometers, scintillation counters, high voltage electrophoresis, and fraction collectors. There are centrifuges, HPLC machines, and machines to measure combined optical and mechanical properties of muscle. Laboratories are equipped with state-of-the-art apparatus for basic research in cell and molecular biology such as gene cloning, mapping, and sequencing, protein purification and analysis, and biochemistry.

There is a Philips EM300 electron microscope, a Jeol 100 CX electron microscope, and a scanning electron microscope, Balzer's and Bullivant's freeze fracture apparatus, ultramicrotomes, DNA synthesizers, DNA thermal cyclers, high pressure liquid chromatography, analytic and preparative ultracentrifuges, bacteriological facilities, all the necessary computer hardware and software for data collection and analysis, complete photographic darkrooms, cold rooms, and general equipment for gamma and beta scintillation counting, flame and recording spectrophotometry, centrifugation, ultracentrifugation, dishwashing, and sterilization.

There is space for faculty offices, conference rooms, and central equipment rooms. In addition, there are excellent machine and electronics shops housed in the Department of Physiology and Biophysics. The electronics shop is manned by an electronics engineer; it is fully equipped for testing, servicing, and constructing electronic equipment. The machine shop is is equipped with the lathe milling, drilling and sawing machinery necessary for building experimental apparatus.

Parkinson Building

Neuroscience facilities on the third floor of the Parkinson Building (approximately 12,000 sq. ft.) include physiology laboratories, extensive space for core facilities, including rooms for biochemical analysis, fluorometry, cryostat sectioning and autoradiographic preparation, microdissection procedures, and radioisotope storage and handling; a high-performance liquid chromatography and gas chromatography area; an environmentally controlled area for computer and image-processing facility; darkrooms; a histology laboratory; a transmission electron microscope suite; a conference room, which houses the Department of Neurology library; and offices for at least eight prospective Neuroscience faculty.

sophisticated neural modeling. Seven video recording and playback systems are available for quantitative studies of behavior. Two separate histology rooms equipped with chemical fume hoods, ovens, refrigerators, etc., are used for preparation of histological materials. A well equipped transmission electron microscope (Hitachi) suite is located down the hall from the neurophysiology labs. Seven environmentally controlled animal husbandry rooms and a large aquarium room are used to rear insects, fish, reptiles and mammals.

ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE (RSMAS)

A National Institute of Environmental Health Sciences Marine and Freshwater Biomedical Science Center has recently been funded. Several of the projects involve the development of neurological models. Facilities available at RSMAS include a culture room for marine dinoflagellates, a biochemistry laboratory for metabolic studies, an electron microscopy laboratory (with a Philips 300 TEM, a Zeiss EM-9 TEM, an ISI DS-130 SEM), and an experimental fish and shellfish Hatchery. An elctrophysiological laboratory to study the effects of toxins on channels in marine invertebrates is to be built.

Shared Facilities

(i) Several common facilities within the University of Miami are considered "shared" and available to Neuroscientists. These facilities include DNA and peptide synthesis facilities, stores of molecular biological reagents, a tissue culture supply and media center, a magnetic resonance imaging center, biomedical instrumentation and machine shop, biomedical communication, graphics and photography services, information resources, academic computer resources, cobalt irradiator, and a FACS facility. There is also a SUN Workstation dedicated to molecular biological computing with complete DNA analysis software (IntelliGenetics and Wisconsin programs) and constantly updated databases (GenBank, EMBL, etc.)

(ii) Any increments in laboratory equipment will be supplied by the individual preceptors in the Neuroscience Faculty via extramural support.

c. Existing laboratory space is adequate for present needs and for the needs of students in the proposed program. New faculty members will presumably be supplied with space by their departments.

Extramural Funding

In 1988 the University of Miami was ranked 43rd in the amount of extramural funding when compared to all colleges and universities in the United States. The university was awarded $73,064,000 in total federal obligations. An estimated $8,500,000 was received from NIH alone for funding of research in the Neurosciences.

3. Curriculum

a. Divisions of the Discipline

The Neurosciences Program will not be divided into divisions. Available to each student will be courses in neuroanatomy, neurophysiology, biophysics, neuropharmacology, biochemistry, cellular and molecular neurobiology, neural development, and systems neuroscience.

b. Course Descriptions

Descriptions of existing courses are presented in Appendix 1. No new courses are proposed at the present time because existing course work in various participating departments is adequate for our present purposes. From time to time additional desirable courses will be considered. For example, there is current discussion about a course concerning the mechanisms of neurological diseases and a

NEUROSCIENCE CURRICULUM

FIRST YEAR

* = Core Neuroscience Cource

Semester	Credits	Description	Department and #	Offered
I				
	3	*Molecular Biology	BMB 616	Fall
	4	*Principles Membrane Physiol & Biophys	MCP/PHS 641/642	Fall
	1	*Seminar		
	0	*Ethics		Fall
	1	*Journal Club		Fall
	9 credits			
II				
	3	*Neurophysiology	PHS 511	Spring
	3	*Neuroanatomy	CBA 505	Spring
	3	*Cell Biology	CBA 651	Spring
	3	Lab rotations		
	1	*Seminar		
	1	*Journal Club		Spring
	14 credits			
Summer I			Lab rotations	

SECOND YEAR

III				
	3	*Integrative Neuroscience	Biology 661	Fall
	3	Elective (e.g. Developmental Neurobiology)	PHS/CBA 663	Fall
	3	Elective		
	3	Lab Rotations		
	1	*Seminar		
	1	*Journal Club		Fall
	14 credits			
IV				
	3	Elective (e.g. Neuropharmacology)		
	4	Elective (e.g. Dissertation Research)		
	1	*Seminar		
	1	*Journal Club	Spring	
	9 credits			

The criteria for full membership in the Neuroscience Program as determined by the Steering Committee (10 January, 1991) are:

(1) To have established an ongoing independent research program in some area of Neuroscience.
(2) To have trained graduate or postgraduate students in Neuroscience and published in peer-reviewed journals in some area of Neuroscience.
(3) To have maintained independent funding at the national level for his/her independent research projects. Acceptable sources of funding do not include postdoctoral fellowship awards or sources of funding that are outside the usual peer review process. The member must be able to fund Neurosciences Program graduate students who have decided to perform their dissertation research in the member's laboratory. This support would begin after the students have finished their rotations and the required coursework and have passed their qualifying examinations.
(4) To have a genuine interest in training and teaching at the graduate level as evidenced by participation in Neuroscience-related courses, seminars, and journal clubs.
(5) Some of these requirements may, at the discretion of the Steering Committee, be waived for new, independent junior faculty deemed to have high promise for graduate training, but who have not yet had time to secure funding.

Those neuroscientists who do not qualify for full membership will be "Affiliate Members." Any faculty members of the University of Miami academic community who show interest in neurosciences and are willing to participate in Neuroscience Program activities are encouraged to become Affiliate Members. All can apply for full membership at any time.

All memberships will be reviewed every five years.

b. Additional Faculty

At present, no additional faculty will be needed for this program. Additional faculty will be recruited by the individual departments in the University and new and existing Departmental faculty will be added to the Neurosciences Program if they meet criteria for inclusion.

c. Interactions

Because of the Interdisciplinary nature of the Neuroscience program, students will interact with faculty and students in a variety of departments. Members of the Departments of Biology, Biochemistry and Molecular Biology, Cell Biology and Anatomy, Molecular and Cellular Pharmacology, Neurology, Neurological Surgery, Ophthalmology, Pathology, Physiology and Biophysics, Psychiatry, and Psychology have agreed to participate in this program. In addition, graduate students will have exposure to the impressive numbers of postdoctoral fellows (estimated to be >50 at the present time) in Neuroscience Laboratories. Postdoctoral students participate in seminars and journal clubs and interact with graduate students in the laboratory every day.

The Neuroscience Steering Committee will be responsible for coordinating course offerings, seminars, journal clubs, and colloquia with other pertinent departments. In addition, individuals from the participating departments will be expected to serve on Neuroscience student committees.

(i) At the present time the Neurosciences Program uses one-quarter of a Secretary's time. The salary is supplied by the School of Medicine. Funds have been allocated for a half-time Senior Staff Assistant to meet the growing needs of the Program.

(ii) Space for graduate students in the biomedical sciences will be supplied by the School of Medicine. Such space will be outfitted with appropriate desks, phones, mail boxes, photocopying machines, and computers.

(iii) Money for travel and publication costs will be supplied by individual preceptor's research grants. The University is presently supplying four full-time stipends ($12,100 x 4 = $48,000 + health insurance + tuition waivers) which will allow the Neuroscience Program to admit two full-time students per year and to cover these positions for two years. Their stipends will then be covered by individual preceptor's research grants.

b. Administration and Academic Direction

(i) The program will be administered by a Steering Committee and its Chair. The Steering Committee, as presently constituted, consists of eight members selected from the Departments of Cell Biology and Anatomy, Molecular and Cellular Pharmacology, Physiology and Biophysics, Neurology, and Psychology. At present the Chair is Dr. Kenneth Muller, Professor of Physiology and Biophysics. The Steering Committee has appointed various subcommittees (e.g., Admissions, Curriculum) chaired by members of the Steering Committee and composed of full members of the Neurosciences Program.

The Steering Committee of the proposed program will consist of eight full faculty members of the Program, who are elected from the following units:
(1 member) Cell Biology and Anatomy, Molecular Biology and Biochemistry, and Immunology and Microbiology;
(2 members) Molecular and Cellular Pharmacology;
(2 members) Department of Physiology and Biophysics;
(1 member) Coral Gables and RSMAS Campuses;
(2 members) Clinical departments, including Neurology, Neurosurgery (including the Miami Project), Ophthalmology, Psychiatry, and Pathology.

Steering Committee members will be elected by the members of the Neuroscience program in that particular unit in consultation with the Steering Committee. Each member will serve for four years. Two members will rotate off the committee every year.

The Steering Committee will elect a Chair from its membership for a term of five years. The Chair's performance will be reviewed periodically by the Steering Committee; if this performance is unsatisfactory, the Chair may be removed by a vote of six members of the Steering Committee.

The Steering Committee will meet at least monthly with the schedule of meetings made available to the membership. In most cases, members of the Neuroscience Program will be expected to present their concerns via their unit's elected Steering Committee members. However, any member may petition the Chair in writing to present concerns in person at a regular meeting of the Steering Committee. In addition, there will be a yearly meeting at which all Neuroscience Program members are encouraged to voice their opinions and suggestions.

(ii) The Steering Committee will be responsible for academic and policy-making decisions. It has been, and will continue to be, responsible for determining the criteria for faculty membership in the Program. The Chair will lead the Program, execute the decisions of the Committee, and be responsible for governance of the Program, including budgetary matters, meetings, advertisements, teaching, and student progress.

At the time a student enters, a committee of three faculty members, one of whom will be a

School	*Number of Ph.D Students*	*Number of Applicants/year*	*Number of full-time faculty Members*
Tulane University	8	9	27
Case-Western Reserve	19	60	9 (+ 25 secondary)
Washington University	34	60	75
Tufts University	7	35	5 (+ 9 secondary)
Rochester	19	35	70 (laboratories)

Comparison of total library holdings, serial subscriptions, and percentage of Neuroscience-related serial subscriptions at the University of Miami with 5 other Class I private institutions offering Ph.D. degrees in Neuroscience (According to the Association of Research Libraries (ARL), 1988).

The University's Serial holdings in Neurosciences are as follows:

Institution	*Total Holdings*	*Total Number of Periodical Titles*	*Total Number of Periodicals Related to Neuroscience*	*Percent Periodicals Related to Neuroscience*
University of Miami	**1,615,000**	**15,478**	**185**	**1.19%**
Tulane University	1,715,000	16,767	164	0.98%
Case Western Reserve	1,535,000	12,345	154	1.25%
Emory University	1,786,000	16,733	212	1.27%
Syracuse University	2,247,000	20,614	187	0.91%
Rutgers University	3,347,000	28,433	222	0.78%

A comprehensive list of the UM serial holdings related to the Neurosciences is presented in Appendix 4

The University of Miami also holds 2,480 monographs related to the field of Neuroscience.

The laboratory resources currently available are comparable with those available at other leading Class I Private institutions.

A comparison of NIH funding in Neurosciences with other Class I Private universities is as follows:

University of Miami	$8,515,186.00
Case/Western Reserve	$7,578,618.00
Syracuse	$2,413,436.00
Emory	$1,978,791.00
Rutgers	$899,726.00
Tufts	$796,282.00
Tulane	$694,243.00

The funding in this table does not include other sources of research revenues such as NSF and private funding agencies.

The proposed curriculum in Neuroscience at the University of Miami will contain all the essential basic science components found in programs at other schools with successful Neuroscience training programs such as Tulane, Tufts, Case/Western, Emory, Syracuse, and Rutgers. Included in the proposed

8. Budget

No additional funds are required for the salaries of present or new faculty, library additions, teaching assistantships, laboratory equipment, staff, or travel, to initiate the Neuroscience Program.

For Year One we will not require any new funds above those already allotted to the program.

BUDGET

Revenue:

1. Student Tuition:

Student Level	Tuition per credit	# students	# credits	Total
Year 1				
1	567	2	23	26,082
2	567	2	23	26,082
3	567	2	15	17,010
Total for budget year 1				69,174
Year 2				
1	567	3	23	39,123
2	567	2	23	26,082
3	567	2	15	17,010
4	567	2	15	17,010
Total for budget year 2			(107,163)	99,225 + 8%
Year 3				
1	567	2	23	26,082
2	567	3	23	39,123
3	567	2	15	17,010
4	567	2	15	17,010
Total for budget year 3			(115,736)	99,225 + 8%

Physical Facilities

Office space with an adjoining conference room and notice board are needed.

Training Grant

In the future the Program will submit a proposal for a Training Grant in the Neurosciences. Such support would relieve the University of a large part of the expense of running the Program. Institutional support will have been sought for the Chair's effort (estimated 20% time) in administering the program including assembly of this proposal.

Developmental Biology, CBA 652 (3)

Course Description: Continuation of CBA 651. Early developmental events, including fertilization, changes in transcriptional and translational activity, cleavage and gastrulation, nuclear-cytoplasmic interactions, and intercellular recognition. These events are treated at both the molecular and cellular levels, including changes in gene expression.

Cellular and Molecular Neurobiology, CBA 632 (2)

Course Description: The expression of neuronal phenotypes at the molecular and cellular level. The molecular organization and composition of synapses; the biosynthesis and regulation of synaptic components; axoplasmic transport and the targeting of neuronal membrane proteins; and the biochemistry of neurotransmitter synthesis, termination, and regulation. Background in cell biology, biochemistry, and/or molecular biology.

Developmental Neurobiology, CBA 663 (3)

Course Description: Development of the nervous system in all its aspects: origins of neurons and glia; nerve cell differentiation; cellular interactions during neurogenesis; formation of synaptic connections and neuronal circuits; development of nervous functions and ontogeny of behavior; mechanisms of repair and reorganization in the nervous systems; and theories of neuronal plasticity.

Neuroanatomy, CBA 505 (3)

Course Description: An introduction to the major structures and pathways of the human central nervous system. The student dissects a whole brain and examines transverse sections of the brain stem and spinal cord.

Advanced Neuroanatomy, CBA 631 (2)

Course Description: Detailed study of structures and pathways of the mammalian central nervous system with emphasis on the human brain and examination of histologic sections from the central nervous system of several mammals including man, monkey, dog and rabbit. Experimental techniques used in investigation of the central nervous system are studied.

MICROBIOLOGY AND IMMUNOLOGY (MI)

Neurovirology, MI 527 (3)

Course Description: Combines elements of virology, immunology, and neurology. The introductory portion of this course presents basic concepts of viruses and virus-cell interactions, neuroanatomy and pathogenesis of neurological disease, and neuroimmunology. Subsequent lectures and discussions center on specific neurological illnesses of virus origin ranging from acute encephalitis and meningitis to persistent, latent, and slow degenerative diseases. New perspectives on diagnosis, prevention, and therapy of neuroviral diseases are discussed.

Medical Microbiology, MI 501 (5)

Course Description: Nature of microbial agents of infectious disease. Relationship of virulence to host resistance. Fundamental immunologic concepts. Microbial physiology and genetics, and the structure, design and mechanism of action on antimicrobials.

Research Seminar, PB 600 (1)

Course Description: Predoctoral trainees prepare and present to the department a seminar on are search area of interest or (for more advanced students) on their own research in progress. Seminar is rehearsed with a faculty member, and program faculty formally critique the final presentation.

Nerve and Synapse, PB 669 (2)

Course Description: An advanced seminar course in the basic mechanisms underlying the propagated nerve impulse and synaptic transmission, including second messengers, neuromodulation, memory mechanisms, and integrative mechanisms underlying behavior.

Molecular Biology of Neuropeptides, PB 670 (2)

Course Description: An advanced seminar course in the genetics, synthesis, action, and degradation of neuropeptides as hormones, transmitters, and modulators of cell function.

Principles of Membrane Physiology and Biophysics I, PB 641 (2)

Course Description: Chemical and physical structure of membranes; model systems; permeability and transport; membrane potential; ionic channels; excitability in nerve and muscle; ionophores; active transport; membrane receptors. Identical with MCP 641.

Principles of Membrane Physiology and Biophysics II, PB 642 (2)

Course Description: Osmosis and cell volume; tracer analysis of permeability and compartmentation; theory of channels and carriers; cable properties; Hodgkin-Huxley formalism; Na, K and Ca ion channels; regulation of cellular Na, Ca activities; single-channel analysis; chemical synapses; membrane receptors; cell junctions; excitation and E-C coupling in muscle. Identical with MCP 642.

PSYCHOLOGY

Advanced Psychological Statistics I, Psych 631 (3)

Course Description: Statistics for experimental designs with uncorrelated independent variables. Review of t-test; introduction to analysis of variance, including one way and factorial designs, repeated measures, and post hoc comparisons among means.

Multiple Regression and Multivariate Statistics, Psych 632 (3)

Course Description: Techniques for the analysis of multiple quantitative measurements including multiple regression, multivariate analysis of variance, discriminant analysis and canonical correlation. Computer application of these techniques to the behavioral sciences.

Psychobiology, Psych 605 (3)

Course Description: Consideration of neuronal transmission, transmitter dynamics, and principles of nervous system organization in relation to behavior. Psychobiology of drug actions, pain, modulation of consciousness, regulatory processes, sexual behavior, information processing, emotion, and psychophysiologic disorders.

Psychophysiology, Psych 606 (3)

Course Description: A review of current research and experimental procedures in psychophysiology. Emphases are upon behavioral and environmental situations that influence physiological functioning.

Appendix 2

A package containing the vitae of all full faculty members of the Neuroscience Program.

Neuroscience

Thomas Morrissey (Florida)
John Pablo (Wayne State)
Howard Rind (SUNY)
Lamya Shihabuddin (American University of Beirut)
Allan Levi (University of Ottawa)

Physiology and Biophysics

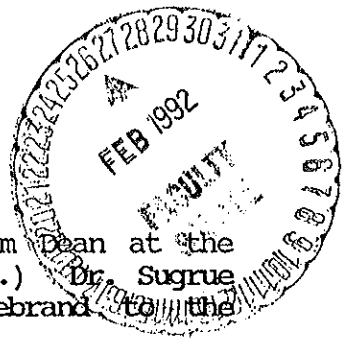
Michele Borgeson (Florida)
Eric Levine (Brandeis)
Jacqueline Miodownik Seldes (University of Buenas Aires)
Yingjian Wang (Peking University)
Jun Yan (Beijing Second Medical College)
Xiao-wei Zhou

Psychology

Yu-Fei Duan (Beijing University Medical School)
Mathew McEchron (Iowa)
Thomas Reed (Miami)
Susan Lutgendorf (Iowa)
Alejandra Pazos (American University)
Ruth Quillian (Virginia)
Mario Rodriguez (Miami)
Kathleen Starr (Iowa)

rain Developmental Neuropsychology
Developmental Neuroscience
Digest of Neurology and Psychiatry
Electroencephalography and Clinical Neurophysiology
Electromyography and Clinical Neurophysiology
Epilepsia
European Journal of Neuroscience
European Neurology
Excerpta Medica, Section 8, Neurology and Neurosurgery
Excerpta Medica, Section 8A, Neurology and Neurosurgery
Experimental Brain Research
Experimental Neurology
Glia
Headache
Hippocampus
Hormones and Behavior
Informateur des Alienistes et des Neurologistes
International Journal of Developmental Neuroscience
International Journal of Eating Disorders
International Journal of Neurology
International Review of Neurobiology
Journal Belge de Neurologi et de Psychiatrie
Journal de Neurologie et de Psychiatrie
Journal of Autonomic Nervous System
Journal of Behavioral Medicine
Journal of Cell Biology
Journal of Chemical Neuroanatomy
Journal of Child Neurology
Journal of Clinical and Experimental Neuropsychology
Journal of Clinical Neurophysiology
Journal of Clinical Psychopharmacology
Journal of Comparative Neurology
Journal of General Physiology
Journal of Geriatric Psychiatry and Neurology
Journal of Membrane Biology
Journal of Molecular Neuroscience
Journal of Nervous and Mental Disease
Journal of Neural Transmission
Journal of Neural Transplantation
Journal of Neurobiology
Journal of Neurochemistry
Journal of Neurocytology
Journal of Neurogenetics
Journal of Neuroimmunology
Journal of Neurology
Journal of Neurological Sciences
Journal of Neurology and Psychiatry
Journal of Neurology and Psychopathology
Journal of Neurology, Neurosurgery and Psychiatry
Journal of Neuropathology and Experimental Neuro.
Journal of Neurophysiology
Journal of Neuropsychiatry and Clinical Neuroscience
Journal of Neuroscience
Journal of Neuroscience Methods
Journal of Neuroscience Nursing

FAXED 2/26/92



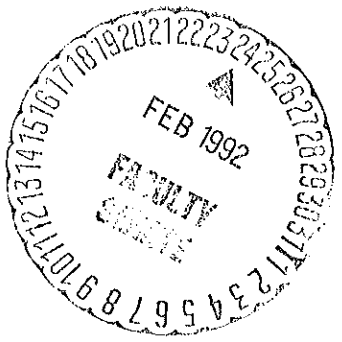
SCHEDULE FOR EXTERNAL REVIEWERS ON FEBRUARY 26, 1992
FOR PH.D. in NEUROSCIENCES PROPOSAL

*08:00 a.m. - 09:00 a.m.	Breakfast with Dr. Paul Sugrue, Interim Dean at the Dadeland Marriott Hotel (Meet in lobby.) **Dr. Sugrue will transport Drs. Hatten and Hildebrand to the Behavioral Medicine Department.**
09:00 a.m. - 10:00 a.m.	Meet at Behavioral Medicine facility with Drs. Schneiderman, Ed. Green, Phil McCabe, Tom Nolen, David Wilson, and Ken Muller. **Dr. Schneiderman will transport the reviewers to the Medical Campus.**
10:30 a.m. - 11:30 a.m.	NSP Steering Committee [Dean's Conference Room] (Participants include Drs. Ken Muller, David Adams, Ellen Barrett, Mary Bunge, Robert Davidoff, Lincoln Potter, Richard Rotundo, Neil Schneiderman, and Dean Bernard Fogel)
11:45 a.m. - 12:30 p.m.	Fundamental Clinical Neurosciences [Parkinson Building] (Participants include Drs. Robert Davidoff, Myron Rosenthal, Dalton Dietrich, Deborah Mash, and Thomas Sick)
12:30 p.m. - 1:30 p.m.	Lunch with NSP Graduate Students [Miami Project Conference Room]. Will include visit to labs and facilities in which students are working. (Participants include Allan Levi, Tom Morrissey, John Pablo, Howard Rind, and Lamya Shihabuddin)
1:30 p.m. - 2:00 p.m.	Faculty studying Development and Regeneration [Pharmacology Conference Room, RMSB 4061]. (Participants include Drs. Mary Bunge, John Bixby, Richard Bunge, Vicky Holets, Robert Keene, Kenneth Muller)
2:00 p.m. - 2:30 p.m.	Faculty studying Membrane Biophysics [Pharmacolaogy Conference Room, RMSB 4061] (Participants include Drs. David Adams, Ellen Barrett, Richard Bookman, David Landowne, Karl Magleby, Wolfgang Nonner)
2:30 p.m. - 3:00 p.m.	Faculty studying Molecular Biology and Signal Transduction [Pharmacology Conference Room, RMSB 4061]. (Participants include Drs. Lincoln Potter, Charles Luetje, Richard Rotundo, William Strauss, Scott Whittemore)
03:00 p.m. - 04:00 p.m.	Meeting with Committee of the Graduate School [at the UM Medical School, scheduled for the Pharmacology Conference Room, RMSB 4061]. **Dr. Hecker will transport reviewers to the Dadeland Marriott.**

Dinner on 2/25/92 - Provost Glaser with Dr. M. L. Hatten. Meet in Dadeland Marriott lobby at 7:15 p.m.

Dinner on 2/26/92 - Provost Glaser with Dr. J. Hildebrand. Meet in Dadeland Marriott lobby at 7:15 p.m.

UNIVERSITY OF Miami



M E M O R A N D U M

February 24, 1992

TO: William Whelan, Chairman
Faculty Senate and Government

FROM: Paul K. Sugrue, Senior Vice Provost and Interim Dean of the Graduate School

SUBJECT: Neuroscience Ph.D. Proposal

Per your request, I am enclosing a complete copy of the Neuroscience Ph.D. proposal and c.v.'s.

PKS:nb

Graduate School
P.O. Box 248125
Coral Gables, Florida 33124-2220
(305) 284-4154

UNIVERSITY OF Miami

SCHOOL OF MEDICINE

February 20, 1992

Dr. William J. Whelan
Chair, Faculty Senate
325 Ashe-Administration Building
University of Miami
Coral Gables, FL 33124-4634

Dear Bill:

In response to your letter of February 12 regarding the proposed non-departmentalized program in the Neurosciences, the Basic Science Chairmen of the School of Medicine discussed this issue at our meeting of February 19. Some our group had no knowledge of the proposal or of the progress toward implementing this program. Most of the Basic Science department faculty have had little opportunity to learn of this program. Since this program will have a significant impact on graduate studies at the School of Medicine, we feel that the input from our group should be heard. We would appreciate the opportunity to present our views to the Faculty Senate as a group or individually before any decisions are made.

Sincerely,

Keith Brew
Biochemistry and Molecular Biology

Werner R. Loewenstein
Physiology and Biophysics

Kermit L. Carraway
Cell Biology and Anatomy

James D. Potter
Molecular and Cellular Pharmacology

Ernest Y. C. Lee
Biochemistry and Molecular Biology

J. Wayne Streilein
Microbiology and Immunology

Department of Cell Biology and Anatomy (R-124)
P.O. Box 016960
Miami, Florida 33101
Tel: (305) 547-6691 • Telefax: (305) 545-7166
Location: Rosenstiel Medical Sciences Building
1600 N.W. 10th Avenue
Miami, Florida 33136

MEMORANDUM

TO: Dr. Michael Carlebach
Dr. William Evoy
Dr. Peter Tarjan
Dr. Robert Warren

FROM: Mrs. Barbara L. Hoadley
Secretary of the Faculty Senate

DATE: February 19, 1992

SUBJECT: Scheduled Meeting

This will confirm that the Senate Sub-committee, appointed to review the Ph.D. proposal in Neuroscience, is scheduled to meet on Thursday, February 27 at 4:00 p.m. in the Faculty Senate Conference Room, Ashe 325. Please mark your calendars accordingly.

BLH/s

UNIVERSITY OF
Miami
FACULTY SENATE

February 12, 1992

Dr. Kermit L. Carraway
Chairman
Department of Cell Biology and Anatomy
Rosenstiel Medical Science Building, R-124

Dear Kermit:

Here is an item for the basic science Chairmen which may be of some urgency. The Faculty Senate is about to receive a proposal for a non-departmentalized Ph. D. program in Neurosciences. External assessors of the program will review it at the end of the month. I want to be sure that the program has been adequately discussed in the basic science departments and has their approval. An important change seems to be that it would no longer be necessary for a participating faculty member in a clinical department to have a joint appointment in a basic science department. The other aspect is funding, because this will now compete for funding with the established Ph. D. programs.

I respond also to your memorandum of January 24 and the matter of the University of Miami creating the Degree of D.Sc./D.Lit. I would be happy to discuss the matter with the basic science chairs at the next meeting if you care to invite me.

Please let me know.

Yours sincerely,

W. J. Whelan
Chair, Faculty Senate

WJW\ca

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

UNIVERSITY OF
Miami
FACULTY SENATE

MEMORANDUM

TO: Ad Hoc Review Committee for Neuroscience Proposal
(Professors Michael Carlebach, William Evoy, Peter Tarjan, and Robert Warren, Chair)

FROM: Barbara L. Hoadley BLH
Secretary of the Faculty Senate

DATE: February 12, 1992

SUBJECT: Scheduled Meeting

Dr. Robert Warren, chair of the ad hoc committee, has requested a meeting of the committee on Tuesday, February 25, at 4:00 p.m. in the Faculty Senate Conference Room, Ashe 325. He has a meeting already scheduled for 2:00 p.m. that day on main campus and felt it would accommodate his schedule, if others were available. The enclosed material is in preparation for the meeting.

Please confirm your attendance by calling 8-3721.

BLH/s

Enclosure

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

BH

FAXED 2-10-92

UNIVERSITY OF Miami

Executive Vice President and Provost

MEMORANDUM

February 7, 1992

TO: **William Whelan**
Chairman of the Faculty Senate

FROM: **Dr. Paul K. Sugrue**
Senior Vice Provost and
Interim Dean of the Graduate School

SUBJECT: **Neurosciences Ph.D. Proposal**

In view of the fact that the external reviewers will be on campus on February 26, it would be virtually impossible to have their report back and reviewed prior to a meeting of the Graduate Council during the first week of March. In view of the fact that spring break is during the second week of March, the March 18th meeting of the Council is probably as soon as we could feasibly schedule it.

Pending approval of the proposal of the Graduate Council on March 18, we should have the proposal to the Senate by the 20th of March.

PKS/yf

P.O. Box 248033
Coral Gables, Florida 33124-4628
(305) 284-3356
Fax: (305) 284-6758

C, Pending, WW

UNIVERSITY OF
Miami
FACULTY SENATE

February 6, 1992

Dr. Paul Sugrue
Vice Provost and Interim
Dean of the Graduate School
240 Ashe, 4628

Dear Paul:

Neurosciences Program

Thank you for your memorandum of February 4 requesting an extension of the Senate deadline for consideration of the Ph. D. program in neurosciences. I will take this to the Senate Council next Monday.

In the meantime, I am appointing a committee to review the proposal.

I notice that you will bring the proposal to the Graduate Council on March 18. Is it possible that you could do this before March 16? That is the date for our March Council meeting. My intention would be that if the proposal received the go-ahead on March 16, it would be sent to the March and April Senate meetings for the required two readings. These are the last two Senate meetings at which this could be done. I hope you can expedite the proposal through your Council.

I am also looking forward to news of the MFA Creative Writing proposal.

Thank you,

Yours sincerely,

W. J. Whelan
Chair, Faculty Senate

WJW/ca

325 Ashe-Admin. Bldg.
Coral Gables, Florida 33124-4634
305 284-3721

UNIVERSITY OF Miami

Executive Vice President and Provost

MEMORANDUM

February 4, 1992

TO: **Dr. William Whelan**
Chair of the Faculty Senate

FROM: **Dr. Paul K. Sugrue**
Senior Vice Provost and
Interim Dean of the Graduate School

SUBJECT: **Proposal for a Ph.D. in Neurosciences**

The external reviewers for the Neurosciences Ph.D. proposal will be visiting the medical campus on 26, February. If all goes well the proposal will be presented to the Graduate Council at their March 18 meeting and will be forwarded to the Senate shortly thereafter. I am therefore requesting a three to four week extension of the March 1 deadline for new program proposals to be submitted to the Senate Council.

In order to facilitate the approval process, I am forwarding a copy of the program proposal for the council's preliminary review.

Dr. Kenneth Miller of the Department of Physiology and Biophysics is the current Chair of the nerosciences sub committee.

PKS/yf

P.O. Box 248033
Coral Gables, Florida 33124-4628
(305) 284-3356
Fax: (305) 284-6758

UNIVERSITY OF
Miami

Executive Vice President and Provost

FILE

REVISION

MEMORANDUM

November 4, 1991

TO: Dean Bernard J. Fogel
School of Medicine

FROM: Luis Glaser
Executive Vice President
and Provost

SUBJECT: Development of Neurosciences Program

This will confirm that we have agreed, for a period of three years, to support a part-time secretary and the cost of developing recruiting materials for a neurosciences program, at a cost not to exceed $30,000 on an annual basis. While at the present time we do not know when this activity would start with precision, it may start as early as January 1, 1992 (I apologize for the incorrect start date in my September 16 memorandum). The cost for this would be divided equally between the Medical School and the Provost's Office.

Thank you for your help in this very important program, about which we are both very excited.

LG:tmp

cc: Dr. Robert A. Davidoff

Dr. Kenneth Muller

P.O. Box 248033
Coral Gables, Florida 33124-4628
(305) 284-3356
Fax: (305) 284-6758

SENATE

MEMORANDUM FOR THE RECORD

Ph.D. Program in Neurosciences

At a meeting with Provost Glaser which I believe took place on January 6, he informed me that a proposal for a Ph.D. program in Neurosciences was being assembled. He told me that the external examiners would not be able to visit Miami until the end of February and yet the Senate, as a result of recent experiences, has set a deadline of March 1 as the latest date for the submission of any new degree programs.

I promised to do what I could to help and in the interim, once the draft of the proposal became available, I acted ahead of the usual time by appointing a senate committee to look at the program headed by Robert Warren (Cell Biology and Anatomy). Normally such a committee does not begin its work until the proposal is received from the Graduate Council.

Having now, as a result of my senate experience, come to realize that proposals that should receive approval along the way before reaching the senate often do not do so by inadvertent oversight. I wrote on February 12 (Annex 1) to the basic science chairman to point out that this program was under discussion. In the late afternoon of February 25, I received the attached letter dated February 20 from the Basic Science chairman and attached as Annex 2. In this, the chairs state their lack of knowledge of the proposal and asked for an opportunity to present their views to the Faculty Senate.

Making inquiries in the morning of February 26 as to the status of the visit by the external examiners, I learned that it was taking place on that day. A copy of their schedule is attached as Annex 3. I noticed that no opportunity had been provided to me the chairs of the existing Ph.D. granting departments or their representatives, yet these departments and their faculty have been called on in the proposal to accommodate neuroscience students in appropriate courses.

I spoke to Kermit Carraway as the coordinator of the Basic Science Chairman and also to Ernest Lee and Wayne Streilein about the possibility of trying to arrange a meeting with the external accessors, and learned indirectly that James Potter would be willing to attend such a meeting. I also attempted to contact acting Graduate School Dean Paul Sugrue to make this suggestion, but received a message from his office that Dr. Sugrue was off campus. I spoke to Robert Warren, the Chairman of the Senate Committee evaluating the program. In turn, he spoke to Ken Muller, the Director of the Neurosciences program, who suggested to the visitors that they meet the basic science chairs, but the visitors declined on the grounds of lack of time. I so informed Dr. Carraway.

cc: Dr. Kermit L. Carraway
Mr. Luis Glaser
Mr. Ken Muller
Dr. Paul Sugrue
Dr. Robert Warren

Proposal for University-Wide Neuroscience Program

1. Rationale

a. Title of Degree: Ph.D. in Neuroscience

b. Purpose and Goals

The proposed Neuroscience Program is a University-wide program involving interdisciplinary training from 11 departments at the Coral Gables, RSMAS and Medical School campuses. The objective of this program is to train highly qualified individuals for independent research and teaching careers in Neuroscience. Graduate training is the major focus of the program with specific emphasis on cellular, molecular, and integrative approaches to Neurobiology.

Neurosciences at the University of Miami is exceptionally strong and represents a major strength of the institution. This is apparent from the amount of peer-reviewed funding obtained from national funding agencies (see section 7), the publication rate in major journals of the field, the number of editorships, seats on NIH Study Sections, and invited participation in national and international meetings. The proposed interdisciplinary, university-wide Neuroscience Ph.D. Program is a logical outgrowth of the existing departmental-based Neuroscience Program. The existing program has 50 participating faculty from the Medical School and Coral Gables campus, and these faculty have adequate laboratory space and extramural funds to support a Neuroscience Program. Thus, the framework is in place for an outstanding university-wide Neuroscience Program. Currently there are five students enrolled in the existing program, and the University has provided stipends to support them financially. These students receive training in Neuroscience, but the degree they will receive is offered through the individual basic science departments in which they conduct their dissertation research. The Neuroscience degree is an important component for any Neuroscience graduate program. The proposed program will bring faculty, research programs, and administration under a single umbrella that will provide a broader perspective than is possible within a single department. Such a program would expand the opportunities in graduate training at the University of Miami. It would also facilitate the recruitment of outstanding students, enhance the reputation of the University's Neuroscience training, and foster scientific interaction and collaboration among Neuroscience faculty and students at the University.

c. Demand and Job Market

Neuroscience is concerned with the development, organization, function, and diseases of the nervous system. These processes must be examined from a variety of perspectives including cellular and molecular biology, membrane biophysics, neurophysiology, neuroanatomy, neurochemistry, neuropharmacology, behavioral biology, and psychobiology. Further disciplines such as Neurology, Neurological Surgery, Pathology, and Ophthalmology have explored the pathophysiology and therapeutic strategies of neurological disorders and trauma to the central and peripheral nervous systems. In response to the need for a multidisciplinary approach to understand brain mechanisms and the pathophysiologic aspects of nervous system disorders, the field of Neuroscience has emerged over the last two decades. The Society for Neuroscience, which is the major scientific organization in Neuroscience, has grown dramatically from 500 members in 1969 to over 18,000 members in 1991. This recent figure includes approximately 4,000 student members. In the same period, doctoral programs in Neuroscience-related fields (including Ph.D. and M.D./Ph.D. programs) have increased from 96 to 340 programs (247% increase). Recognizing the growing importance of Neuroscience, the U.S. Congress passed a resolution that declared the 1990's as the Decade of the Brain. This elevated awareness has also led to an increase in federal funding for Neuroscience research. For FY 1991, Congress appropriated over one-half billion dollars for the National Institute for Neurological Diseases and Stroke (NINDS). The National Institute of Mental Health (NIMH) received almost three-quarters of a billion dollars for Neuroscience/behavioral research. Clearly, federal support for the Neurosciences is substantial. Within Florida only the University of Florida offers a Ph.D. degree in

Neuroscience. Forty five faculty members, with appointments in various basic science and medical school departments, are involved in that program. The academic and administrative organization of that program is similar to the proposed program at the University of Miami. Currently, 51 predoctoral students are enrolled in the University of Florida Neuroscience Program and related Ph.D. programs. In comparison, the University of Miami has 47 predoctoral students enrolled in comparable departments. Several other Florida institutions have Neuroscience-related Ph.D. programs in Biology and/or Psychology. These include Florida State University, Florida Atlantic University, and Florida Institute of Technology. The University of South Florida College of Medicine offers both Ph.D. and M.D. degrees in Medical Sciences with a major in a department with neuroscientific faculty. Each of the programs in the state of Florida currently has between 4 and 10 doctoral students enrolled.

d. Relationship to Other Fields, and Interactions with Departments

The proposed Neuroscience Program is an interdisciplinary program with participating faculty from the departments of Biology, Cell Biology and Anatomy, Microbiology and Immunology, Molecular and Cellular Pharmacology, Neurology, Neurological Surgery, Pathology, Ophthalmology, Physiology and Biophysics, Psychiatry, and Psychology. An important aspect of the program is interaction and collaboration among faculty and students from different disciplines. For example, the existing Neuroscience Program is supervised and directed by a Steering Committee that is presently comprised of faculty from Cell Biology and Anatomy, Neurology, Molecular and Cellular Pharmacology, Physiology and Biophysics, and Psychology. Faculty from different departments are team-teaching many of the core courses and electives, and faculty and students are encouraged to attend seminars and journal clubs jointly sponsored by the participating departments. Many of the participating faculty already have collaborative research projects that are interdepartmental.

e. Relationship to Undergraduate and Professional Programs

The proposed graduate program will enhance existing undergraduate and professional programs. The Ph.D. in Neuroscience will offer a logical and attractive next step for many undergraduate majors including Biology, Biomedical Engineering, Chemistry, Physics, Psychology, Psychobiology. In terms of professional programs, the Neuroscience Program does provide Ph.D. training for M.D./Ph.D. students. The Neuroscience Program will provide a resource for undergraduate and professional programs and serve to enhance their reputation.

2. Physical Resources

a. Library Holdings

(i) The UM does not possess any special or unique neuroscience collections but, as indicated in section 7, has a large collection of periodicals and monographs in the Neurosciences.
(ii) No additional library acquisitions will be needed, so long as the existing journal subscriptions are maintained.
(iii) No incremental library needs are required.

The UM library system has adequate resources for the purposes of this proposed program. The number of Neuroscience-related journals compares favorably with other universities (see comparisons in Section 7).

b. Laboratory Resources and Equipment

Neuroscience laboratory resources at the University of Miami include facilities at the Rosenstiel Medical Sciences Building, the Parkinson Building, the Louis and Virginia Bantle Rehabilitation Research Center, and the Veterans Administration Medical Center, all located at the Medical School campus, as well as facilities in the Behavioral Medicine Building and the Cox Science Building on the Coral Gables campus and on the Rosenstiel School of Marine and Atmospheric Science (RSMAS).

MEDICAL SCHOOL CAMPUS

Rosenstiel Medical Sciences Building

Neuroscience facilities of the Miami Project to Cure Paralysis are located on the first floor of the Rosenstiel Medical Sciences Building. Approximately 12,000 sq. ft. of the first floor is devoted to Neuroscience laboratory space. These basic science laboratories were all completed between 1987 and 1989 and include facilities for tissue culture, electron microscopy, histology, behavioral testing, neurophysiology, biochemistry and immunocytology, and molecular neurobiology. Additional resources available on-site include darkrooms for the purpose of developing and printing images, an IBAS image analysis system, light and dark microscopy viewing areas, a survival surgery suite, an argon-laser facility, a dishwashing and sterilizing facility and a biochemistry laboratory. Three transmission and scanning electron microscopes are available.

The third, fourth, fifth, and sixth floors of the Medical Sciences Buildings include a number of individual and shared facilities in the Departments of Cell Biology and Anatomy, Molecular and Cellular Pharmacology, and Physiology and Biophysics. Approximately 50,000 square feet of space is committed to current Neuroscience faculty and is available to the Neuroscience Program. Individual laboratories of Neuroscience Program participants together contain at least 28 computerized electrophysiological set-ups for voltage clamping, patch clamping, and intracellular recording that use inverted and upright compound photomicroscopes employing interference and fluorescence optics. High-resolution optical recording includes 5 on-line computerized image analysis systems and a custom optical recording setup using voltage sensitive dyes. The laboratories have 15 tissue culture hoods and numerous dissecting stations, microelectrode pullers, incubators, spectrophotometers, scintillation counters, high voltage electrophoresis, and fraction collectors. There are centrifuges, HPLC machines, and machines to measure combined optical and mechanical properties of muscle. Laboratories are equipped with state-of-the-art apparatus for basic research in cell and molecular biology such as gene cloning, mapping, and sequencing, protein purification and analysis, and biochemistry.

There is a Philips EM300 electron microscope, a Jeol 100 CX electron microscope, and a scanning electron microscope, Balzer's and Bullivant's freeze fracture apparatus, ultramicrotomes, DNA synthesizers, DNA thermal cyclers, high pressure liquid chromatography, analytic and preparative ultracentrifuges, bacteriological facilities, all the necessary computer hardware and software for data collection and analysis, complete photographic darkrooms, cold rooms, and general equipment for gamma and beta scintillation counting, flame and recording spectrophotometry, centrifugation, ultracentrifugation, dishwashing, and sterilization.

There is space for faculty offices, conference rooms, and central equipment rooms. In addition, there are excellent machine and electronics shops housed in the Department of Physiology and Biophysics. The electronics shop is manned by an electronics engineer; it is fully equipped for testing, servicing, and constructing electronic equipment. The machine shop is is equipped with the lathe milling, drilling and sawing machinery necessary for building experimental apparatus.

Parkinson Building

Neuroscience facilities on the third floor of the Parkinson Building (approximately 12,000 sq. ft.) include physiology laboratories, extensive space for core facilities, including rooms for biochemical analysis, fluorometry, cryostat sectioning and autoradiographic preparation, microdissection procedures, and radioisotope storage and handling; a high-performance liquid chromatography and gas chromatography area; an environmentally controlled area for computer and image-processing facility; darkrooms; a histology laboratory; a transmission electron microscope suite; a conference room, which houses the Department of Neurology library; and offices for at least eight prospective Neuroscience faculty.

The fourth floor of the Parkinson Building is the site of several fully equipped physiology laboratories, a computer facility, electronics and machine shops, and faculty offices. The fourth floor also contains a small-animal vivarium which houses the animals used in research studies. Offices of several Neurology faculty, and out-patient examining areas are located on the second floor of the Parkinson Building. This arrangement thus centralizes both the clinical and investigative activities of the Department of Neurology.

Veterans Affairs Medical Center (VAMC)

Space is present in the Research Wing of the VAMC for biochemistry, tissue culture, and receptor binding. Common resource facilities including an electronic shop, computer facility, and medical illustration are available.

The Louis and Virginia Bantle Rehabilitation Center

The Miami Project recently dedicated The Louis and Virginia Bantle Rehabilitation Research Center, a facility to provide support for clinical and rehabilitation research. The Bantle Center occupies 5,000 sq. ft. of space in the lower level of the Rehabilitation Building of Jackson Memorial Hospital. There are six stations for functional electrical stimulation (FES) cycle ergometers, a gymnasium setting for conventional occupational and physical therapy, an electrically-shielded room for clinical neurophysiology evaluations, a support center for statistical analysis, EMG biofeedback clinical and research laboratories, a biomedical engineering laboratory and a research laboratory in rehabilitative neurology.

CORAL GABLES CAMPUS

Behavioral Medicine Research Building

The Behavioral Medicine Research Building which was opened as a new structure in September, 1983, has approximately 12,000 sq. ft. of floor space specifically designed for biobehavioral research. Its vivarium was designed to comply with all USDA and NIH guidelines pertaining to the care and maintenance of animals. These include a large walk-in cage washer and separate rooms for storage, food preparation, and waste disposal, as well as separate rooms for the housing of each species of animal being studied. The animal research facilities includes separate suites for CNS control of circulation experiments and for Pavlovian conditioning experiments, each with its own surgery room. The rooms for animal behavior experiments include facilities for electrophysiological and neuroanatomical studies, a histology laboratory, perfusion room, a room devoted to an epifluorescence photomicrographic system, data analysis rooms, a darkroom, and an aseptic surgical suite. Laboratories are equipped with IBM compatible and Macintosh microcomputers and peripherals; a computer link to the University's mainframe computer is also available. The building also contains an electronics shop, a machine/wood shop. secretarial and faculty offices and several laboratories for conducting human psychophysiological research.

Cox Science Building

The Cox Science Building contains several research suites within the Department of Biology that are devoted to Neuroscience. Approximately 2,000 sq.ft. of laboratory space is currently used for integrative studies of the nervous system. This includes three rooms in a lab suite used for general electrophysiological studies; a separate room used for free field acoustic studies; and a lab suite dedicated to the study of the sexual behavior and physiology of reptiles. Electrophysiology stations are equipped with the necessities for intracellular recordings and are supplemented with IBM or Macintosh based data acquisition and analysis systems, which are used for stimulus delivery and electrophysiological data collection, sound synthesis and analysis, and image analysis. In addition, several powerful computer workstations (a MacIIx, a VAXStation 2000 and a NeXT Color Station), networked together and to the mainframe computer VAXCluster, are used for program development, data analysis and

sophisticated neural modeling. Seven video recording and playback systems are available for quantitative studies of behavior. Two separate histology rooms equipped with chemical fume hoods, ovens, refrigerators, etc., are used for preparation of histological materials. A well equipped transmission electron microscope (Hitachi) suite is located down the hall from the neurophysiology labs. Seven environmentally controlled animal husbandry rooms and a large aquarium room are used to rear insects, fish, reptiles and mammals.

ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE (RSMAS)

A National Institute of Environmental Health Sciences Marine and Freshwater Biomedical Science Center has recently been funded. Several of the projects involve the development of neurological models. Facilities available at RSMAS include a culture room for marine dinoflagellates, a biochemistry laboratory for metabolic studies, an electron microscopy laboratory (with a Philips 300 TEM, a Zeiss EM-9 TEM, an ISI DS-130 SEM), and an experimental fish and shellfish Hatchery. An elctrophysiological laboratory to study the effects of toxins on channels in marine invertebrates is to be built.

Shared Facilities

(i) Several common facilities within the University of Miami are considered "shared" and available to Neuroscientists. These facilities include DNA and peptide synthesis facilities, stores of molecular biological reagents, a tissue culture supply and media center, a magnetic resonance imaging center, biomedical instrumentation and machine shop, biomedical communication, graphics and photography services, information resources, academic computer resources, cobalt irradiator, and a FACS facility. There is also a SUN Workstation dedicated to molecular biological computing with complete DNA analysis software (IntelliGenetics and Wisconsin programs) and constantly updated databases (GenBank, EMBL, etc.)

(ii) Any increments in laboratory equipment will be supplied by the individual preceptors in the Neuroscience Faculty via extramural support.

c. Existing laboratory space is adequate for present needs and for the needs of students in the proposed program. New faculty members will presumably be supplied with space by their departments.

Extramural Funding

In 1988 the University of Miami was ranked 43rd in the amount of extramural funding when compared to all colleges and universities in the United States. The university was awarded $73,064,000 in total federal obligations. An estimated $8,500,000 was received from NIH alone for funding of research in the Neurosciences.

3. Curriculum

a. Divisions of the Discipline

The Neurosciences Program will not be divided into divisions. Available to each student will be courses in neuroanatomy, neurophysiology, biophysics, neuropharmacology, biochemistry, cellular and molecular neurobiology, neural development, and systems neuroscience.

b. Course Descriptions

Descriptions of existing courses are presented in Appendix 1. No new courses are proposed at the present time because existing course work in various participating departments is adequate for our present purposes. From time to time additional desirable courses will be considered. For example, there is current discussion about a course concerning the mechanisms of neurological diseases and a

unified course in neurosciences for the first year.

c. Proposed Schedule of Course Offerings

Included in the proposed program are courses in molecular biology, membrane biology and biophysics, neuroanatomy, neurophysiology, neuropharmacology, cellular, molecular and developmental neurobiology, and systems (integrative) neuroscience. A key component of this curriculum will be a core of introductory (survey) courses required of all students prior to taking advanced modules and special studies in elective courses. In addition, each student will have at least three laboratory research rotations, each lasting the equivalent of at least one month full-time, and taking place in at least three departments. The goals of rotations include exposure of each student to different faculty, techniques, philosophies and approaches. The purpose is not to complete a specific body of work. Written reports of each rotation will be given by each mentor and student to the Chair of the Steering Committee. The mentor will grade each student rotation. It is anticipated that the laboratory rotations, in combination with the didactic training and journal clubs, will provide the background necessary to select a preceptor and an area of dissertation research.

SAMPLE CORE CURRICULUM OF THE NEUROSCIENCES PROGRAM

Molecular Biology	3 credits
Cell Biology	3 credits
Principles of Membrane Physiology and Biophysics	4 credits
Neurophysiology	3 credits
Neuroanatomy	3 credits
Integrative Neuroscience	3 credits
Journal Club	4 credits
Core Program Courses	23 credits
Elective Courses	15 credits
Seminars/Lab Rotations	15 credits
Dissertation Research	24 credits
TOTAL	77 credits

NEUROSCIENCE CURRICULUM

FIRST YEAR
* = Core Neuroscience Cource

Semester	Credits	Description	Department and #	Offered
I				
	3	*Molecular Biology	BMB 616	Fall
	4	*Principles Membrane Physiol & Biophys	MCP/PHS 641/642	Fall
	1	*Seminar		
	0	*Ethics		Fall
	1	*Journal Club		Fall
	9 credits			
II				
	3	*Neurophysiology	PHS 511	Spring
	3	*Neuroanatomy	CBA 505	Spring
	3	*Cell Biology	CBA 651	Spring
	3	Lab rotations		
	1	*Seminar		
	1	*Journal Club		Spring
	14 credits			
Summer I			Lab rotations	
SECOND YEAR				
III				
	3	*Integrative Neuroscience	Biology 661	Fall
	3	Elective (e.g. Developmental Neurobiology)	PHS/CBA 663	Fall
	3	Elective		
	3	Lab Rotations		
	1	*Seminar		
	1	*Journal Club		Fall
	14 credits			
IV				
	3	Elective (e.g. Neuropharmacology)		
	4	Elective (e.g. Dissertation Research)		
	1	*Seminar		
	1	*Journal Club	Spring	
	9 credits			

THIRD AND FOURTH YEARS

Each Semester — Dissertation research, teaching, Neuroscience Journal Club, and optional electives

9 credits

4. Faculty

a. *Curriculi Vitarum*

Appended (Appendix 2) are complete copies of the *vitae* of all full members of the Neuroscience Faculty. The faculty are members of 11 separate departments at the Medical School and at the Coral Gables Campus:

Departments	Faculty members
Biochemistry and Molecular Biology:	J. David Puett, Ph.D.
Biology:	Luis Glaser, Ph.D.; Thomas G. Nolen, Ph.D.; David L. Wilson, Ph.D.
Cell Biology and Anatomy:	Mary Bartlett Bunge, Ph.D.; Richard Rotundo, Ph.D.
Microbiology and Immunology:	Richard Dix, Ph.D.; Robert Levy, Ph.D.; Wayne Streilein, M.D.
Molecular and Cellular Pharmacology:	David J. Adams, Ph.D.; John Bixby, Ph.D.; Richard J. Bookman, Ph.D.; Anthony Caswell, Ph.D.; Donna D. Flynn, Ph.D.; Irene Litosch, Ph.D.; Charles Luetje, Ph.D.; James D. Potter, Ph.D.; Lincoln T. Potter, M.D.; William L. Strauss, Ph.D.; Cornelius van Breeman, Ph.D.
Neurological Surgery:	Richard Bunge, M.D.; Vicky R. Holets, Ph.D.; Alberto Martinez-Arizala, M.D.; Scott Whittemore, Ph.D.; Robert Yezierski, Ph.D.
Neurology:	Robert A. Davidoff, M.D.; Dalton W. Dietrich, Ph.D.; Myron Ginsberg, M.D.; John C. Hackman, Ph.D.; Deborah Mash, Ph.D.; Myron Rosenthal, Ph.D.; Thomas Sick, Ph.D.
Pathology:	Joseph Neary, Ph.D.; Michael Norenberg, M.D.
Physiology and Biophysics:	Ellen Barrett, Ph.D.; John Barrett, Ph.D.; Gerhard Dahl, M.D.; Ian Dickerson, Ph.D.; Robert Keane, Ph.D.; Wallace Kerrick, Ph.D.; David Landowne, Ph.D.; Werner Loewenstein, Ph.D.; Karl Magleby, Ph.D.; Kenneth J Muller, Ph.D.; Wolfgang Nonner, M.D.; Birgit Rose, Ph.D.
Psychiatry:	Carl Eisdorfer, M.D., Ph.D.
Psychology:	Edward Green, Ph.D.; Philip McCabe, Ph.D.; Neil Schneiderman, Ph.D.

The criteria for full membership in the Neuroscience Program as determined by the Steering Committee (10 January, 1991) are:

(1) To have established an ongoing independent research program in some area of Neuroscience.
(2) To have trained graduate or postgraduate students in Neuroscience and published in peer-reviewed journals in some area of Neuroscience.
(3) To have maintained independent funding at the national level for his/her independent research projects. Acceptable sources of funding do not include postdoctoral fellowship awards or sources of funding that are outside the usual peer review process. The member must be able to fund Neurosciences Program graduate students who have decided to perform their dissertation research in the member's laboratory. This support would begin after the students have finished their rotations and the required coursework and have passed their qualifying examinations.
(4) To have a genuine interest in training and teaching at the graduate level as evidenced by participation in Neuroscience-related courses, seminars, and journal clubs.
(5) Some of these requirements may, at the discretion of the Steering Committee, be waived for new, independent junior faculty deemed to have high promise for graduate training, but who have not yet had time to secure funding.

Those neuroscientists who do not qualify for full membership will be "Affiliate Members." Any faculty members of the University of Miami academic community who show interest in neurosciences and are willing to participate in Neuroscience Program activities are encouraged to become Affiliate Members. All can apply for full membership at any time.

All memberships will be reviewed every five years.

b. Additional Faculty

At present, no additional faculty will be needed for this program. Additional faculty will be recruited by the individual departments in the University and new and existing Departmental faculty will be added to the Neurosciences Program if they meet criteria for inclusion.

c. Interactions

Because of the Interdisciplinary nature of the Neuroscience program, students will interact with faculty and students in a variety of departments. Members of the Departments of Biology, Biochemistry and Molecular Biology, Cell Biology and Anatomy, Molecular and Cellular Pharmacology, Neurology, Neurological Surgery, Ophthalmology, Pathology, Physiology and Biophysics, Psychiatry, and Psychology have agreed to participate in this program. In addition, graduate students will have exposure to the impressive numbers of postdoctoral fellows (estimated to be >50 at the present time) in Neuroscience Laboratories. Postdoctoral students participate in seminars and journal clubs and interact with graduate students in the laboratory every day.

The Neuroscience Steering Committee will be responsible for coordinating course offerings, seminars, journal clubs, and colloquia with other pertinent departments. In addition, individuals from the participating departments will be expected to serve on Neuroscience student committees.

5. Students

a. Students

At the present time there are five students enrolled in the Neuroscience program. They are:

Allan Levi (University of Ottawa)
Thomas Morrissey (University of Florida)
John Pablo (Wayne State University)
Howard Rind (SUNY)
Lamya Shihabuddin (American University of Beirut)

Positions have been offered to two other individuals.

Appended (Appendix 3) is a list of students (and the Universities from which they received their undergraduate degrees) in Neuroscience-related fields presently enrolled in graduate programs in the University. It is assumed that future students in the Neuroscience Program will be drawn from similar institutions.

b. Requirements for admission and retention

To be considered for admission applicants must have a bachelor's degree in one of the biological, behavioral, or physical sciences. Applicants should have a strong quantitative background, should place in the 80th percentile or higher on the General Test of the GRE, and have a GPA of 3.0 or above (4-point scale). Applicants are considered for the doctoral degree only. Application forms are obtained from the Neurosciences Program office.

An admissions subcommittee evaluates all applications and interviews applicants. The admissions subcommittee makes recommendations to the Steering Committee, which decides who is to be offered a position in the Program.

Student progress will be evaluated by the Steering Committee biannually. To remain in the Program, students must maintain an overall 3.0 (B) average, with no less than a 3.0 (B) grade in each core course. Students must also perform satisfactorily on their laboratory rotations, attend neuroscience seminars, attend and participate in the Neuroscience or some other approved journal club, and give a research seminar each year (concerning a pertinent area of literature for the first two years; research seminars in the following years). These seminars will be attended by at least five Neuroscience Program members who will be responsible for criticism of the seminar. Students may hold no outside employment while enrolled as full-time students in the Neuroscience Program.

Students will take a closed-book written qualifying exam before the end of their second year. This exam will be composed and evaluated under the direction of the Steering Committee. A student who passes the exam will be formally admitted to the doctoral program. A student who fails the exam may be permitted to retake the exam (or a portion thereof) within three months at the discretion of the Steering Committee.

c. Teaching Assistants

There is no current need for teaching assistants. Research assistants will be supported by research grants to individual preceptors.

6. Administration

a. Administration increments needed

(i) At the present time the Neurosciences Program uses one-quarter of a Secretary's time. The salary is supplied by the School of Medicine. Funds have been allocated for a half-time Senior Staff Assistant to meet the growing needs of the Program.

(ii) Space for graduate students in the biomedical sciences will be supplied by the School of Medicine. Such space will be outfitted with appropriate desks, phones, mail boxes, photocopying machines, and computers.

(iii) Money for travel and publication costs will be supplied by individual preceptor's research grants. The University is presently supplying four full-time stipends ($12,100 x 4 = $48,000 + health insurance + tuition waivers) which will allow the Neuroscience Program to admit two full-time students per year and to cover these positions for two years. Their stipends will then be covered by individual preceptor's research grants.

b. Administration and Academic Direction

(i) The program will be administered by a Steering Committee and its Chair. The Steering Committee, as presently constituted, consists of eight members selected from the Departments of Cell Biology and Anatomy, Molecular and Cellular Pharmacology, Physiology and Biophysics, Neurology, and Psychology. At present the Chair is Dr. Kenneth Muller, Professor of Physiology and Biophysics. The Steering Committee has appointed various subcommittees (e.g., Admissions, Curriculum) chaired by members of the Steering Committee and composed of full members of the Neurosciences Program.

The Steering Committee of the proposed program will consist of eight full faculty members of the Program, who are elected from the following units:
(1 member) Cell Biology and Anatomy, Molecular Biology and Biochemistry, and Immunology and Microbiology;
(2 members) Molecular and Cellular Pharmacology;
(2 members) Department of Physiology and Biophysics;
(1 member) Coral Gables and RSMAS Campuses;
(2 members) Clinical departments, including Neurology, Neurosurgery (including the Miami Project), Ophthalmology, Psychiatry, and Pathology.

Steering Committee members will be elected by the members of the Neuroscience program in that particular unit in consultation with the Steering Committee. Each member will serve for four years. Two members will rotate off the committee every year.

The Steering Committee will elect a Chair from its membership for a term of five years. The Chair's performance will be reviewed periodically by the Steering Committee; if this performance is unsatisfactory, the Chair may be removed by a vote of six members of the Steering Committee.

The Steering Committee will meet at least monthly with the schedule of meetings made available to the membership. In most cases, members of the Neuroscience Program will be expected to present their concerns via their unit's elected Steering Committee members. However, any member may petition the Chair in writing to present concerns in person at a regular meeting of the Steering Committee. In addition, there will be a yearly meeting at which all Neuroscience Program members are encouraged to voice their opinions and suggestions.

(ii) The Steering Committee will be responsible for academic and policy-making decisions. It has been, and will continue to be, responsible for determining the criteria for faculty membership in the Program. The Chair will lead the Program, execute the decisions of the Committee, and be responsible for governance of the Program, including budgetary matters, meetings, advertisements, teaching, and student progress.

At the time a student enters, a committee of three faculty members, one of whom will be a

member of the Steering Committee, will be appointed by the Steering Committee to provide advice and guidance on the program of studies. The student, in consultation with this committee, will select appropriate elective courses and laboratory rotations that meet the student's needs. The three-member committee will be chosen to provide a diversity of viewpoints that will prevent a narrow educational plan. The student will also consult with this committee in the choice of a preceptor and laboratory to perform dissertation research. This choice will be reviewed for approval by the Steering Committee.

When the student is formally admitted to the doctoral program, a Supervisory Committee of at least five members will be appointed by the Steering Committee, in consultation with the student and mentor. The Supervisory Committee will include at least four members of the full faculty of the Neuroscience Program, including members from at least two departments. At least three of these members will be on the Graduate Faculty of the University. This Supervisory Committee will guide the student in the preparation of his/her dissertation proposal, review the proposal, evaluate the suitability and significance of the proposed research, and preside over the formal defense of the proposal.

When the dissertation proposal has been defended satisfactorily, a Dissertation Committee will be formed. This may have the same composition as the Supervisory Committee, but it may also be a committee formed anew in consultation with the student and the supervisor of his/her dissertation research. The Dissertation Committee will be nominated by the Chair of the Steering Committee in consultation with the Steering Committee, with approval and formal appointment by the Dean of the Graduate School. The composition of the Dissertation Committee will meet the same requirements as those outlined above for the Supervisory Committee. Whenever possible, an external examiner will be sought for each dissertation defence. The duties of the Dissertation Committee are: (1) to consult with and advise the student on his/her research; (2) to meet at least yearly to review progress; (3) to read and comment upon the draft dissertation; (4) to meet, when the dissertation is completed, to conduct the final oral examination and to satisfy itself that the dissertation is a piece of original research and a significant contribution to neuroscientific knowledge. A committee member other than the student's chief research mentor will preside over all committee meetings. The Dissertation Committee will provide a written report on trainee progress at least annually to the Steering Committee.

7. Comparison with Other Established Programs

There are 456 neuroscience training programs at 299 institutions in North America (as reported in the Society for Neuroscience's 1990 edition of Neuroscience Training Programs in North America). Of the 383 programs that grant doctoral degrees, 77 offer a Ph.D. in Neuroscience; 210 offer Neuroscience training with a Ph.D. granted in a traditional discipline; 96 offer a M.D./Ph.D combined degree. A survey of 12 Neuroscience programs shows a wide range of faculty and student participation and training opportunities. All of these programs consist of faculty from diverse University departments or units, including both Clinical and Basic Science Departments. The smaller programs, such as those at Syracuse, Princeton or Tulane Universities have 11 to 20 faculty participants, and the highest student to faculty ratios (0.45 to 1.71). The larger programs, comparable to UM's, have between 40 and 70 faculty participants and lower student to faculty ratios (0.20 to 0.80). Most also offer post-doctoral training. All offer graduate student tuition remission and stipends as well as post-doctoral fellowships. Several advertise federally funded training grant programs. Many are University wide, inter-departmental degree granting programs; others offer Interdisciplinary Neuroscience training with degrees granted in specific participating Departments.

In terms of size and structure, the program at the University of Miami is similar to those of Case/Western Reserve, Tulane, Rochester, Washington University, and Tufts. About half of these offer pre- and post-doctoral research training in the areas of cellular/molecular and organismal neuroscience; the other half offer basic research training in a clinical environment as well. The distribution of Assistant, Associate and Full Professors is generally about 27% to 31% to 42%.

School	*Number of Ph.D Students*	*Number of Applicants/year*	*Number of full-time faculty Members*
Tulane University	8	9	27
Case-Western Reserve	19	60	9 (+ 25 secondary)
Washington University	34	60	75
Tufts University	7	35	5 (+ 9 secondary)
Rochester	19	35	70 (laboratories)

Comparison of total library holdings, serial subscriptions, and percentage of Neuroscience-related serial subscriptions at the University of Miami with 5 other Class I private institutions offering Ph.D. degrees in Neuroscience (According to the Association of Research Libraries (ARL), 1988).

The University's Serial holdings in Neurosciences are as follows:

Institution	*Total Holdings*	*Total Number of Periodical Titles*	*Total Number of Periodicals Related to Neuroscience*	*Percent Periodicals Related to Neuroscience*
University of Miami	1,615,000	15,478	185	1.19%
Tulane University	1,715,000	16,767	164	0.98%
Case Western Reserve	1,535,000	12,345	154	1.25%
Emory University	1,786,000	16,733	212	1.27%
Syracuse University	2,247,000	20,614	187	0.91%
Rutgers University	3,347,000	28,433	222	0.78%

A comprehensive list of the UM serial holdings related to the Neurosciences is presented in Appendix 4

The University of Miami also holds 2,480 monographs related to the field of Neuroscience.

The laboratory resources currently available are comparable with those available at other leading Class I Private institutions.

A comparison of NIH funding in Neurosciences with other Class I Private universities is as follows:

University of Miami	$8,515,186.00
Case/Western Reserve	$7,578,618.00
Syracuse	$2,413,436.00
Emory	$1,978,791.00
Rutgers	$899,726.00
Tufts	$796,282.00
Tulane	$694,243.00

The funding in this table does not include other sources of research revenues such as NSF and private funding agencies.

The proposed curriculum in Neuroscience at the University of Miami will contain all the essential basic science components found in programs at other schools with successful Neuroscience training programs such as Tulane, Tufts, Case/Western, Emory, Syracuse, and Rutgers. Included in the proposed

program are courses in neuroanatomy, neurophysiology, neuropharmacology, cellular, molecular, and developmental neurobiology, and systems neuroscience. The content of these courses is similar to the components of programs at other schools.

Comparison of Neuroscience programs at other institutions reveals that all programs contain essentially the same basic components that include introductory core courses designed to equalize the backgrounds of students before allowing them to proceed to advanced studies tailored to specific research interests. Following the core courses, students generally select a specialized track leading to advanced specialization in an area directly related to their dissertation research. During this time students also participate in seminars and journal clubs in an effort to develop their communicative skills and critical approach to research. Similar training opportunities in oral and written skills will be available in the program proposed at the University of Miami.

Other requirements found in Neuroscience programs include: (a) passing a preliminary exam, (b) preparation of a dissertation proposal, and (c) completion of dissertation research. These same requirements will be part of the training program at the University of Miami.

8. Budget

No additional funds are required for the salaries of present or new faculty, library additions, teaching assistantships, laboratory equipment, staff, or travel, to initiate the Neuroscience Program.

For Year One we will not require any new funds above those already allotted to the program.

BUDGET

Revenue:

1. Student Tuition:

Student Level	Tuition per credit	# students	# credits	Total
Year 1				
1	567	2	23	26,082
2	567	2	23	26,082
3	567	2	15	17,010
Total for budget year 1				69,174
Year 2				
1	567	3	23	39,123
2	567	2	23	26,082
3	567	2	15	17,010
4	567	2	15	17,010
Total for budget year 2				99,225
Year 3				
1	567	2	23	26,082
2	567	3	23	39,123
3	567	2	15	17,010
4	567	2	15	17,010
Total for budget year 3				99,225

Expenses:

Year 1

6 Tuitions	69,174
4 Stipends (12,000 each)	48,000
4 Student Insurance (500 each)	2,000
8 Student Interviews (600 each)	4,800
Brochure	11,000
Senior Staff Assistant, 50% time (12,675 salary + 29% fringe)	16,351
Office Supplies (Stationery, Telephone, Mail, FAX, Discs)	4,200
Personal Computer and Laser Writer	5,000
Photocopying and Related Supplies	2,649
Total for budget year 1	163,174

Year 2

9 Tuitions	99,225
5 Stipends (12,000 each)	60,000
5 Student Insurance (500 each)	2,500
9 Student Interviews (600 each)	5,400
Senior Staff Assistant (incremented 5%)	17,169
Office Supplies (as above)	4,200
Photocopying and Related Supplies	2,700
File Cabinet	400
Student Seminar Expenses	1,631
Total for budget year 1	193,225

Year 3

9 Tuitions	99,225
5 Stipends (12,000 each)	60,000
5 Student Insurance (500 each)	2,500
9 Student Interviews (600 each)	5,400
Senior Staff Assistant (incremented 5%)	18,627
Office Supplies (as above)	4,000
Photocopying and Related Supplies	2,433
Student Seminar Expenses	1,640
Total for budget year 3	193,225

Budget Justification:

A Senior Staff Assistant is needed to perform the following duties: maintain files on graduate applicants; coordinate application process, including visits from prospective students; assemble information for national neuroscience program directories; co-edit and distribute monthly Newsletter, minutes of Steering Committee meetings, and seminar announcements; assemble handbook for graduate students; serve needs of subcommittees, including recruiting brochure, curriculum, Neuroscience journal club, etc.; maintain financial records and budget expenses for the program; maintain Neuroscience bulletin board

Physical Facilities

Office space with an adjoining conference room and notice board are needed.

Training Grant

In the future the Program will submit a proposal for a Training Grant in the Neurosciences. Such support would relieve the University of a large part of the expense of running the Program. Institutional support will have been sought for the Chair's effort (estimated 20% time) in administering the program including assembly of this proposal.

Appendix 1

Course Names and Course Number (Credits)

BIOCHEMISTRY AND MOLECULAR BIOLOGY (BMB)

Proteins and Enzymes, BMB 503 (2)

Course Description: Structure, function and action of enzymes and other proteins. An exposition is given of the kinetics, specificities, mechanisms, and active centers of enzymes, concentrating on well-studied examples. An analysis of structure and function based primarily on chemical techniques is correlated with data obtained by physical methods. The genetic implications of many studies are critically appraised. The modification of function resulting from interacting of protein subunits is discussed.

Introduction to Biochemistry, BMB 506 (3)

Course Description: Basic areas of biochemistry are discussed and central concepts are emphasized.

Molecular Biology, BMB 616 (3)

Course Description: Biochemical processes of DNA replication, repair, recombination, RNA transcription and processing, protein synthesis, control of gene expression and cell differentiation.

Molecular Biological Techniques, BMB 617 (1)

Course Description: Companion course to BMB 616

BIOLOGY

Electron Microscopy, Biol 554 (4)

Course Description: Techniques in transmission electron microscopy including tissue preparation, use of the electron microscope, photography, and interpretation of micrographs. Lecture 1 hour; laboratory, 6 hours.

Neuroethology, Biol 640 (2)

Course Description: Neuronal, sensory, neuromuscular and integrative foundations of animal behavior. Topics include: orientation, navigation, sensory perception, patterns of movement, learning, memory and communication.

Neurosciences Nervous System Integration (Integrative Neuroscience), Biol. 661 (3)

Course Description: Survey of neural control mechanisms underlying behavior. Organization and synaptic connections of specific invertebrate, brain and spinal cord control systems using neurohistological, neurophysiological and neuro-pharmacological procedures.

CELL BIOLOGY AND ANATOMY (CBA)

Cell Biology, CBA 651 (3)

Course Description: Structure, function, and biogenesis of cellular organelles and the cytoskeleton, including their regulation and dynamic interactions.

Developmental Biology, CBA 652 (3)

Course Description: Continuation of CBA 651. Early developmental events, including fertilization, changes in transcriptional and translational activity, cleavage and gastrulation, nuclear-cytoplasmic interactions, and intercellular recognition. These events are treated at both the molecular and cellular levels, including changes in gene expression.

Cellular and Molecular Neurobiology, CBA 632 (2)

Course Description: The expression of neuronal phenotypes at the molecular and cellular level. The molecular organization and composition of synapses; the biosynthesis and regulation of synaptic components; axoplasmic transport and the targeting of neuronal membrane proteins; and the biochemistry of neurotransmitter synthesis, termination, and regulation. Background in cell biology, biochemistry, and/or molecular biology.

Developmental Neurobiology, CBA 663 (3)

Course Description: Development of the nervous system in all its aspects: origins of neurons and glia; nerve cell differentiation; cellular interactions during neurogenesis; formation of synaptic connections and neuronal circuits; development of nervous functions and ontogeny of behavior; mechanisms of repair and reorganization in the nervous systems; and theories of neuronal plasticity.

Neuroanatomy, CBA 505 (3)

Course Description: An introduction to the major structures and pathways of the human central nervous system. The student dissects a whole brain and examines transverse sections of the brain stem and spinal cord.

Advanced Neuroanatomy, CBA 631 (2)

Course Description: Detailed study of structures and pathways of the mammalian central nervous system with emphasis on the human brain and examination of histologic sections from the central nervous system of several mammals including man, monkey, dog and rabbit. Experimental techniques used in investigation of the central nervous system are studied.

MICROBIOLOGY AND IMMUNOLOGY (MI)

Neurovirology, MI 527 (3)

Course Description: Combines elements of virology, immunology, and neurology. The introductory portion of this course presents basic concepts of viruses and virus-cell interactions, neuroanatomy and pathogenesis of neurological disease, and neuroimmunology. Subsequent lectures and discussions center on specific neurological illnesses of virus origin ranging from acute encephalitis and meningitis to persistent, latent, and slow degenerative diseases. New perspectives on diagnosis, prevention, and therapy of neuroviral diseases are discussed.

Medical Microbiology, MI 501 (5)

Course Description: Nature of microbial agents of infectious disease. Relationship of virulence to host resistance. Fundamental immunologic concepts. Microbial physiology and genetics, and the structure, design and mechanism of action on antimicrobials.

MOLECULAR AND CELLULAR PHARMACOLOGY (MCP)

Neuropharmacology, MCP 668 (3)

Course Description: An intensive seminar course for advanced students covering the mechanism of action of drugs on basic neural processes, including action potentials, neurotransmission (storage, release, reception and metabolism of transmitters), and central nervous activity, taught jointly by staff members of Pharmacology and Physiology/Biophysics.

Pharmacology and Therapeutics, MCP 605 (6)

Course Description: Mechanisms underlying the therapeutical and pharmacodynamic properties of pharmacological agents. Emphasis will be placed on cellular and molecular aspects and the quantitative factors governing equilibration within multicompartment systems and drug control of nervous and muscular function in relation to therapeutic action.

Molecular and Cellular Pharmacology, MCP 652 (3)

Course Description: Recent advances in the molecular biology of cellular activation by hormones and neurotransmitters. Hormone-regulated signal transduction mechanisms and the manner in which they interact to control cellular responses as they pertain to the pharmacology of drug and hormone action.

PHYSIOLOGY AND BIOPHYSICS (PB)

Cellular Physiology and Biophysics, PB 510 (2)

Course Description: General principles of cell physiology, including the chemical and physical structure of membranes, membrane transport, muscle excitation and contraction, energy transduction, nerve impulse conduction, and synaptic transmission. Lectures and laboratories taught by training and allied faculty, with clinical correlations taught by medical faculty. Graduate students, together with a small group of self-selected, bright medical students, also participate in an Honors Section in which students read related experimental papers and discuss them together under the supervision of program faculty or advanced postdoctoral trainees.

Neurophysiology, PB 511 (3)

Course Description: Physiology of the mammalian nervous system. Topics include reflexes, sensory and motor systems, hearing, pain, vision, development of neural connections, temperature regulation, EEG, autonomic nervous system, hypothalamus and limbic systems, memory and language. Lectures and laboratories taught by training and allied faculty; clinical correlations taught by medical faculty. Includes Honors section similar to that described above for P&B 510.

Systemic Physiology, PB 512 (5)

Course Description: Physiology of the mammalian cardiovascular, respiratory, renal, gastrointestinal, endocrine and reproductive systems. Respiratory, renal and gastrointestinal lectures and laboratories are taught by program faculty, clinical correlations by medical faculty. A special feature of this course is the final two week Endocrine Module taught by a multidisciplinary team of basic scientists and clinicians, which includes lectures, clinical correlations, and conferences in which small groups of students discuss and interpret data from the current literature relevant to the understanding and treatment of endocrine and reproductive disorders.

Research Seminar, PB 600 (1)

Course Description: Predoctoral trainees prepare and present to the department a seminar on are search area of interest or (for more advanced students) on their own research in progress. Seminar is rehearsed with a faculty member, and program faculty formally critique the final presentation.

Nerve and Synapse, PB 669 (2)

Course Description: An advanced seminar course in the basic mechanisms underlying the propagated nerve impulse and synaptic transmission, including second messengers, neuromodulation, memory mechanisms, and integrative mechanisms underlying behavior.

Molecular Biology of Neuropeptides, PB 670 (2)

Course Description: An advanced seminar course in the genetics, synthesis, action, and degradation of neuropeptides as hormones, transmitters, and modulators of cell function.

Principles of Membrane Physiology and Biophysics I, PB 641 (2)

Course Description: Chemical and physical structure of membranes; model systems; permeability and transport; membrane potential; ionic channels; excitability in nerve and muscle; ionophores; active transport; membrane receptors. Identical with MCP 641.

Principles of Membrane Physiology and Biophysics II, PB 642 (2)

Course Description: Osmosis and cell volume; tracer analysis of permeability and compartmentation; theory of channels and carriers; cable properties; Hodgkin-Huxley formalism; Na, K and Ca ion channels; regulation of cellular Na, Ca activities; single-channel analysis; chemical synapses; membrane receptors; cell junctions; excitation and E-C coupling in muscle. Identical with MCP 642.

PSYCHOLOGY

Advanced Psychological Statistics I, Psych 631 (3)

Course Description: Statistics for experimental designs with uncorrelated independent variables. Review of t-test; introduction to analysis of variance, including one way and factorial designs, repeated measures, and post hoc comparisons among means.

Multiple Regression and Multivariate Statistics, Psych 632 (3)

Course Description: Techniques for the analysis of multiple quantitative measurements including multiple regression, multivariate analysis of variance, discriminant analysis and canonical correlation. Computer application of these techniques to the behavioral sciences.

Psychobiology, Psych 605 (3)

Course Description: Consideration of neuronal transmission, transmitter dynamics, and principles of nervous system organization in relation to behavior. Psychobiology of drug actions, pain, modulation of consciousness, regulatory processes, sexual behavior, information processing, emotion, and psychophysiologic disorders.

Psychophysiology, Psych 606 (3)

Course Description: A review of current research and experimental procedures in psychophysiology. Emphases are upon behavioral and environmental situations that influence physiological functioning.

These include the study of stress-induced hypertension, ulceration, and other psychophysiologic disorders.

Neurosciences I: Neuronal Mechanisms, Psych 607 (3)

Course Description: Biophysical, biochemical and morphological approaches at the cellular level to nervous integration as a basis for behavior.

Neurosciences II: Neuronal Mechanisms, Psych 608 (3)

Course Description: Survey of neural control mechanisms underlying behavior. Organization and synaptic connections of specific invertebrate, brain and spinal cord control systems using neurohistological, neurophysiological and neuro-pharmacological procedures.

Psychopharmacology, Psych 609, (3)

Course Description: Basic methods and current issues in psychopharmacology.

Psychoneuroimmunology, Psych 613 (3)

Course Description: Structural and functional aspects of the immune system that are sensitive to neural and psychological processes. Interactions between the nervous and immune systems are examined in relation to empirical associations between psychological factors (i.e., stress) and immune-mediated processes in diseases such as cancer and aids.

Appendix 2

A package containing the vitae of all full faculty members of the Neuroscience Program.

Appendix 3.

List of students in Neuroscience-related fields presently enrolled in graduate programs in the University.

Undergraduate degrees were obtained from the schools in parentheses.

Cell Biology and Anatomy

none currently

Biochemistry

Adviye Ergul (University of Istanbul)
Lizette Fernandez (Miami)

Biology

Valerie Bansbach (Pomona College)
Rosie Bolen (Mary Baldwin College)
Guiyan Deng (Beijing Agricultural University)
Jerry Johnston (Villanova)
Mindy Nelson (Illinois)
Sandra Perez (Pittsburgh)
Bert Pooth (SUNY)
Irene Thio (Pittsburgh)

Cellular and Molecular Pharmacology

Kelley Bodden (New College)
Jigany Carsi-Gabrenas (Miami)
Qian Chen (Peking Union Medical College)
Javier Cuevas (Dartmouth)
Hongran Fan (Peking University)
Daren Grossman (Miami)
Li Li (Shanghai Medical University)
Matt Lorenzi (Marquette)
Xingjian Lou (Shanghai Institute of Medicine)
Steven Max (Miami)
Howard Motoike (California State)
Sherry Purkerson (Miami)
Zelin Shen (Henan Medical University)
Glen Van Slooten (Rutgers)
Zijian Xu (Shanghai Medical University)
Markus Zeller (Colgate)
Ren Zhang (Peking Union Medical College)
Sheng-Ping Zou (Hunan Medical College)

Microbiology and Immunology

none currently

Neuroscience

Thomas Morrissey (Florida)
John Pablo (Wayne State)
Howard Rind (SUNY)
Lamya Shihabuddin (American University of Beirut)
Allan Levi (University of Ottawa)

Physiology and Biophysics

Michele Borgeson (Florida)
Eric Levine (Brandeis)
Jacqueline Miodownik Seldes (University of Buenas Aires)
Yingjian Wang (Peking University)
Jun Yan (Beijing Second Medical College)
Xiao-wei Zhou

Psychology

Yu-Fei Duan (Beijing University Medical School)
Mathew McEchron (Iowa)
Thomas Reed (Miami)
Susan Lutgendorf (Iowa)
Alejandra Pazos (American University)
Ruth Quillian (Virginia)
Mario Rodriguez (Miami)
Kathleen Starr (Iowa)

Appendix 4

List of UM Serial holdings related to Neurosciences:

A.M.A. Archives of Neurology
Abstracts - Society for Neuroscience
Acta Neurochirurgica
Acta Neurologica Belgica
Acta Neurologica et Psychiatrica Belgica
Acta Neurologica Scandinavica
Acta Neuropathologica
Acta Physiologica Scandinavica
Acta Psychiatrica et Neurologica Scandinavica,
Addictive Behaviors
Advances in Behavioral Biology
Advances in Biochemical Psychopharmacology
Advances in Gene Technology: Molecular Neurobiology and Neuropharmacology
Advances in Mental Science
Advances in Neurogerontology
Advances in Neurological Sciences
Advances in Neurology
Advances in Pain Research and Therapy
American Journal of Neuroradiology
Alzheimer Journal of Orthopsychiatry
Annals of Neurology
Annual Review of Neuroscience
Archives of Neurology
Archives of Neurology and Psychopathology
Behaviour Brain Research
Behaviour Research and Therapy
Biofeedback and Self-Regulation
Biological Psychiatry
Biophysical Journal
BNI Quarterly
Brain, Behavior and Evolution
Brain, Behavior, and Immunity
Brain
Brain Research
Bulletin of Clinical Neurosciences
Bulletin of the Los Angeles Neurological Society
Canadian Journal of Neurological Sciences
Cell
Cellular and Molecular Neurobiology
Cerebral Palsy Bulletin
Cerebral Palsy Journal
Cerebral Palsy Review
Chicago Journal of Nervous and Mental Disease
Child's Nervous System
Contemporary Neurology Series
Corrective and Social Psychiatry and Journal of
Cortex
Current Opinion in Neurology and Neurosurgery
Developmental Brain Research
Developmental Medicine and Child Neurology

rain Developmental Neuropsychology
Developmental Neuroscience
Digest of Neurology and Psychiatry
Electroencephalography and Clinical Neurophysiology
Electromyography and Clinical Neurophysiology
Epilepsia
European Journal of Neuroscience
European Neurology
Excerpta Medica, Section 8, Neurology and Neurosurgery
Excerpta Medica, Section 8A, Neurology and Neurosurgery
Experimental Brain Research
Experimental Neurology
Glia
Headache
Hippocampus
Hormones and Behavior
Informateur des Alienistes et des Neurologistes
International Journal of Developmental Neuroscience
International Journal of Eating Disorders
International Journal of Neurology
International Review of Neurobiology
Journal Belge de Neurologi et de Psychiatrie
Journal de Neurologie et de Psychiatrie
Journal of Autonomic Nervous System
Journal of Behavioral Medicine
Journal of Cell Biology
Journal of Chemical Neuroanatomy
Journal of Child Neurology
Journal of Clinical and Experimental Neuropsychology
Journal of Clinical Neurophysiology
Journal of Clinical Psychopharmacology
Journal of Comparative Neurology
Journal of General Physiology
Journal of Geriatric Psychiatry and Neurology
Journal of Membrane Biology
Journal of Molecular Neuroscience
Journal of Nervous and Mental Disease
Journal of Neural Transmission
Journal of Neural Transplantation
Journal of Neurobiology
Journal of Neurochemistry
Journal of Neurocytology
Journal of Neurogenetics
Journal of Neuroimmunology
Journal of Neurology
Journal of Neurological Sciences
Journal of Neurology and Psychiatry
Journal of Neurology and Psychopathology
Journal of Neurology, Neurosurgery and Psychiatry
Journal of Neuropathology and Experimental Neuro.
Journal of Neurophysiology
Journal of Neuropsychiatry and Clinical Neuroscience
Journal of Neuroscience
Journal of Neuroscience Methods
Journal of Neuroscience Nursing

Journal of Neuroscience Research
Journal of Neurosurgery
Journal of Neurotrauma
Journal of the Neurological Sciences
Journal of Pharmacology and Experimental Therapeutics
Journal of Physiology (London)
L'encephaie
Molecular Pharmacology
Monatsschrift fur Psychiatrie und Neurologic
Monographs in Neuroscience
Muscle & Nerve
Nature
Nervous and Mental Disease Monographs
Neurobiology of Aging
Neurochemical Research
Neuroendocrinology
Neurologic Clinics
Neurological Research
Neurology
Neuromethods
Neuron
Neuropediatrics
Neuropeptides
Neuropharmacology
Neuropsychobiology
Neuropsychopharmacology
Neuroradiology
Neuroscience
Neuroscience and Behavioral Physiology
Neuroscience Letters
Neurosurgery
Pain
Paraplegia
Pavlovian Journal of Biological Science
Pediatric Neuroscience
Practical Medicine Series: Neurology, Psychiatry
Proceedings of the National Academy of Sciences (USA)
Progress in Brain Research
Progress in Neurobiology
Progress in Neurological Surgery
Progress in Neuropathology
Psychiatria et Neurologia
Psychopharmacology Bulletin
Psychophysiology
Revista de Neuro-Psiquiatria
Revista de Neurologia Clinica
Revue Neurologique
Schweizer Archiv fur Neurologie und Psychiatrie
Science
Sleep
Spastic Review
Stereotactic and Functional Neurosurgery
Surgical Neurology
Synapse
Trends in Neuroscience