

M.S. to Ph.D. Program Track

AGREEMENT

between

University of Puerto Rico, Mayagüez Campus

and

University of Medicine and Dentistry of New Jersey

This AGREEMENT is made and entered this 3rd day of May, 1999, between the University of Puerto Rico, Mayagüez Campus, Mayagüez, Puerto Rico 00681-5000 (UPR-M) and the University of Medicine and Dentistry of New Jersey, Graduate School of Biomedical Sciences, Piscataway Division, 675 Hoes Lane, Piscataway, New Jersey 08854-5635 (GSBS-P).

UPR-M and GSBS-P confirm in writing the terms and conditions of mutual and individual responsibilities related to the offering of this program.

BACKGROUND

This proposal is designed to create an articulated M.S./Ph.D. Program between UPR-M and GSBS-P to enable outstanding students to enter the M.S. Program in Biology at UPR-M and simultaneously complete the requirements for that M.S. degree and some requirements for the Ph.D. in the biomedical sciences at GSBS-P. Students successfully completing this phase of the program will be admitted with advanced placement into the Ph.D. programs at GSBS-P. This program is intended to increase the opportunities for underrepresented students from Puerto Rico to enter doctoral science programs in preparation for careers as researchers and educators in the biomedical sciences. On the Piscataway Campus, UMDNJ has been active in training underrepresented minorities in the biomedical sciences. Minority enrollment in GSBS-P has been advanced by an Initiative for Minority Student Development Award from the NIH, which supports research training at the undergraduate, graduate and medical school levels through the UMDNJ-Rutgers University Pipeline Program. Minority and disadvantaged undergraduates are also the majority of participants in the summer Biomedical Careers and Graduate Science Careers Programs, which have completed their twenty-first and sixth years, respectively.

UPR-M is a component of UPR, with a Biology Department that offers the B.S. and M.S. degrees, but does not offer doctoral level training. A strong relationship already exists between UPR-M and GSBS-P, with B.S. and M.S. graduates of UPR-M comprising the largest source of minority trainees in the doctoral programs of GSBS-P. However, the absence of a track to the doctoral degree hampers efforts by UPR-M to attract students with this career goal. Furthermore, students who have the ability to pursue the doctoral degree but are not yet fully prepared to do so cannot take advantage of the Ph.D. programs at GSBS-P. Therefore, the present proposal creates an articulated M.S./Ph.D. program to assist in the recruitment of highly motivated M.S. candidates who will begin their training at UPR-M, but will do their M.S. thesis research while they prepare to enter the Ph.D. programs at GSBS-P.

PROGRAM DESIGN

Students will be recruited into the articulated M.S./Ph.D. program from the undergraduate campuses that have provided large numbers of applicants to the M.S. Program in Biology at UPR-M and from the pool of applicants who have applied to the M.S. program or to the Ph.D. programs at GSBS-P. Those selected for the articulated program will be enrolled in a three year modified M.S. program, whose successful completion will result in admission to the Ph.D. programs at GSBS-P.

Students spend one year in residence on the campus of UPR-M, mainly taking courses, followed by two years of thesis research and course work at GSBS-P. After the first year of research, students will return to UPR-M to review their academic and research progress. After the second year of research, students will present a seminar at UPR-M based on their research. At this time, students should have completed all requirements for the M.S. degree. During the second year of research, students will also take two of the four core curriculum courses required for the Ph.D. in the programs at GSBS-P comprising the Molecular Biosciences Programs. Successful completion of the M.S. degree and grades of B or above in both core curriculum courses will result in acceptance into the Ph.D. programs at GSBS-P. Students accepted into the Ph.D. programs will have the opportunity to continue Ph.D. thesis research in the same laboratory where M.S. research was performed, although they may change laboratories if they elect to do so, selecting thesis advisors from the faculty of the Molecular Biosciences Programs of Rutgers University and GSBS-P.

PLAN OF OPERATION

Mentorship by faculty from UPR-M and GSBS-P, with course work at both universities, research at GSBS-P and counseling provided by the Cognitive Skills Program of UMDNJ-Robert Wood Johnson Medical School are the foundation upon which the articulated program is based. This program is designed to select talented students and through the training, research experience and mentorship provided, assist them in making the transition from the M.S. to the Ph.D. programs at GSBS-P. This articulated program is based on the previous success of the M.S. Program in Biology at UPR-M and the Ph.D. programs at GSBS-P, and the long record of successful entry of graduates of UPR-M into these Ph.D. programs. The new program will supplement rather than replace the existing degree programs at both universities.

Recruitment and admissions of students into the program will be based at UPR-M and will include participation by faculty at GSBS-P, who will review the files of all students recommended for admission by the faculty at UPR-M, and who will periodically visit UPR-M to recruit, present seminars, and meet with students and faculty from UPR-M.

Students in the GSBS-P phase of the program initially will be assigned a temporary advisor, who is experienced in mentoring Ph.D. candidates who previously trained at UPR-M. This mentor will advise the students on elective course and laboratory rotation selection and will monitor progress. After two required laboratory rotations approved by the Molecular Biosciences Laboratory Rotation Committee, each student will select a laboratory for the M.S. thesis, and the thesis advisor will replace the temporary advisor in mentoring the student. Temporary and thesis advisors will meet prior to assignment at least once each semester with the Director of the articulated program to review progress and to customize the curriculum as dictated by the interests and previous preparation of the

student, the topic of thesis research and student performance.

Accepted students must maintain a minimum cumulative grade point average of 3.0 (B) in all course work, with no more than two grades of C. The program is outlined below:

First Year (UPR-M):

Minimum of 18 credits over two semesters, including:

BIOL 6689, Biological Research Methods (Fall)

BIOL 6690, Graduate Seminar (Fall)

Summer Following First Year (GSBS-P):

01:115:301/313, Introductory Biochemistry with Laboratory (4 credits)

16:695:616, Laboratory Rotation (2 credits)

Cognitive Skills evaluation

Second Year (GSBS-P):

01:695:615, Laboratory Rotation (2 credits, Fall)

Thesis Research (to begin after second laboratory rotation)

Elective courses as individually determined, in consultation with thesis advisor

GRE Preparation, followed by taking of the GRE (Spring)

Summer Following Second Year

Thesis Research

Visit to UPR-M

Third Year (GSBS-P):

Thesis research, dissertation preparation and defense

16:115:501, Biochemistry (3 credits, Fall)

16:680:502, Microbial and Molecular Genetics (3 credits, Spring)

Final research presentation at UPR-M

Upon the completion of this curriculum with at least a grade of B in each of the two third year courses, the student will be awarded the M.S. in Biology from UPR-M, and will be admitted into the Ph.D. Programs in the Molecular Biosciences of Rutgers University and GSBS-P. Although performance on the GRE will not be evaluated for entry into the Ph.D. phase of this program, all students will be expected to take this examination, since students who wish to pursue the Ph.D. in other programs will require GRE scores to apply. Furthermore, GRE scores are required for many individual fellowships, for which these students can be expected to compete.

TERMS OF AGREEMENT

This agreement shall commence on the date signed, with the intent to recruit students into the articulated M.S./Ph.D. program in the 1999/2000 academic year, and shall remain in effect for the period required for completion of the M.S. and Ph.D. degrees by any student admitted into the program. This Agreement may be terminated at any time, upon mutual agreement, by the authorities of either UPR-M or GSBS-P upon sufficient notice to allow completion of any given application cycle. Nor further admission shall be made under this program after such notice is given.

GENERAL PROVISIONS

Both UPR-M and GSBS-P shall continue to be autonomous and shall be governed independently by their respective governing bodies and administrations except insofar as this Agreement specifically states to the contrary.

It is understood and agreed that both parties to this Agreement may revise or modify this Agreement by written amendment when both parties agree to such an amendment.

This Agreement shall be governed and construed and the rights and obligations of the parties hereto shall be determined in accordance with the laws of the State of New Jersey.

WARRANTIES


UPR-M and GSBS-P do hereby warrant and represent that they are qualified by training and experience to perform the required services and programs in the manner and on the terms and conditions set forth herein.

UPR-M and GSBS-P further warrant and represent that this agreement has not been solicited or secured, directly or indirectly, in a manner contrary to the laws of the State of New Jersey, and that said laws have not been violated and shall not be violated as they relate to the procurement or performance of this Agreement by any conduct, including the paying or giving of any fee, commission, compensation, gift, gratuity, or consideration of any kind, directly or indirectly, to any State employee, officer or official.

POINTS OF CONTACT

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Date



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Date



Fred V. Soltero-Harrington, Ph.D.
Acting Chancellor
University of Puerto Rico
Mayagüez Campus

4/26/99

Date