

UNIVERSITY OF ILLINOIS
AT URBANA - CHAMPAIGN

EP.12.05

APPROVED BY SENATE
9/12/2011

Office of the Provost and Vice Chancellor
for Academic Affairs

Swanlund Administration Building
601 East John Street
Champaign, IL 61820



August 23, 2011

Gay Miller, Chair
Senate Committee on Educational Policy
Office of the Senate
228 English Building, MC-461

Dear Professor Miller:

Enclosed is a copy of a proposal from the Graduate College and the College of Liberal Arts and Sciences to establish a Master of Science in Cell and Developmental Biology.

This proposal has been approved by the Graduate College Executive Committee and the Committee on Courses and Curricula in the College of Liberal Arts & Sciences. It now requires Senate review.

Sincerely,

A handwritten signature in black ink that reads 'Kristi A. Kuntz'.

Kristi A. Kuntz
Assistant Provost

KAK/njh

Enclosures

c: A. Belmont
A. Elli
A. Kopera
S. Leigh
M. Lowry
D. Rivier
S. Sligar

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Graduate College

204 Coble Hall
801 South Wright Street
Champaign, IL 61820-6210



Executive Committee

March 31, 2011

2010-11 Members

Debasish Dutta, *Chair*

Kristi Kuntz
Office of the Provost
207 Swanlund, MC-304

Members

Barry Ackerson

Dear Kristi:

Nicoline Ambrose

Enclosed is the proposal entitled "Establish a Master of Science in Cell and Developmental Biology." The Graduate College Executive Committee did vote unanimously to approve this proposal.

Naomi Bloch

Robert Brunner

Paul Diehl

Margareth Etienne

I send it to you now for further review.

Jennifer Furlong Del Pozo

Janet Gaffney

Sincerely,

Esther Kim Lee

Joe Martocchio

N. Sri Namachchivaya

Andrea Golato
Associate Dean, Graduate College

John Nerone

Romana Nowak

Rolando Romero

James Slauch

cc: A. Belmont
A. Kopera
M. Lowry
C. Malmgren
A. Mester
D. Rivier
S. Sligar

Albert Valocchi

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

RECEIVED

JUL 27 2010

GRADUATE COLLEGE

Office of the Dean

College of Liberal Arts and Sciences
294 Lincoln Hall
702 South Wright Street
Urbana, IL 61801-3631



July 22, 2010

Andrea Golato
Associate Dean
Graduate College
204 Coble Hall MC-322

Dear Dean Golato:

On behalf of the Committee on Courses and Curricula, Dean's Cabinet, Executive Committee and the Faculty of the College of Liberal Arts and Sciences, I administratively approve the following proposal:

Establish a Master of Science in Cell and Developmental Biology

Please address all correspondence concerning this proposal to me. This proposal is now ready for review by the Graduate College for proposed implementation upon approval.

Sincerely,

A handwritten signature in cursive script that reads 'Ann M. Mester'.

Ann M. Mester
Associate Dean

enclosure

C: Professor David Rivier
Professor Andrew Belmont
Professor Stephen Sligar



Proposal to the Senate Educational Policy Committee

PROPOSAL TITLE: Establish A New Master of Science in Cell and Developmental Biology in the Department of Cell and Developmental Biology, School of Molecular and Cellular Biology, College of Liberal Arts and Sciences.

SPONSOR: David H. Rivier, Associate Professor, Department of Cell and Developmental Biology; rivier@illinois.edu; 244-0060, B107 Chemical and Life Sci. Lab, 601 S. Goodwin Ave., Urbana, IL 61801, MC-123.

COLLEGE CONTACT: Ann Mester, Associate Dean, College of Liberal Arts and Sciences, 217-244-6622, mester@illinois.edu, 294 Lincoln Hall, 605 E. Springfield Avenue, MC-448, Champaign, IL 61820,

BRIEF DESCRIPTION: The Department of Cell and Developmental Biology (CDB) does not currently award a Master of Science Degree. The goal of this proposal is to establish a Master of Science degree in Cell and Developmental Biology. This proposal requires no changes to the current curriculum.

JUSTIFICATION: The department of CDB admits graduate students to a Ph.D. program (as part of the admissions program of the school of MCB) but does not admit students to a Masters Program. The goal of this proposal is to develop a Masters Degree for those Ph.D. candidates who have completed significant work but elect not to complete the Ph.D. program or whose work is deemed not satisfactory for a Ph.D. degree. In the past, students who have fallen into this category have received a Masters degree through the Master of Science in Biology program; however, significant proposed changes in the requirements for the Masters Biology program will make it no longer compatible with the CDB graduate program. CDB does not intend to admit graduate students directly into a Masters program in the foreseeable future.

BUDGETARY AND STAFF IMPLICATIONS:

- a. Additional staff and dollars needed: none.
- b. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.): none.
- c. Effect on course enrollment in other units and explanations of discussions with representatives of those departments: N/A
- d. Impact on the University Library: Letter from Thomas Teper attached.
- e. Impact on computer use, laboratory use, equipment, etc.: no additional impact.

DESIRED EFFECTIVE DATE: Degree available to confer award as soon as possible, preferably for Fall 2011.

STATEMENT FOR PROGRAMS OF STUDY CATALOG (new information in red) :

Cell and Developmental Biology

mcb.illinois.edu/departments/cdb/

Head of the Department: Andrew S. Belmont
B107 Chemical and Life Sciences Laboratory
601 South Goodwin Avenue
Urbana, IL 61801
(217) 333-6118 (217) 333-6118
E-mail: mcbinfo@life.uiuc.edu

Major: Cell and Developmental Biology

Degrees Offered: M.S., Ph.D.

Medical Scholars Program: Doctor of Philosophy (Ph.D.) in Cell and Developmental Biology and Doctor of Medicine (M.D.) through the [Medical Scholars Program](#)

Graduate Degree Program

The graduate curriculum in Cell and Developmental Biology is designed to educate students for careers in research and teaching in the biological sciences. Departmental faculty are concerned with the structural and functional relationships of cells and organisms, with research emphases upon eukaryotic cell and molecular biology, neurobiology, developmental biology, and molecular genetics. The department has embarked on a major program to develop research strengths in molecular aspects of developmental, neural, structural, and eukaryotic cell biology to complement existing faculty interests. **Students are not admitted to the M.S. program; M.S. requirements are completed as part of the Ph.D. program.**

Admission

Students interested in this program must apply directly to the School of Molecular and Cellular Biology (www.mcb.illinois.edu/graduate/gradprospect.html). During the first semester, students perform three laboratory rotations, choosing from any laboratory in the School. Students select a laboratory for their thesis research in December and formally join the appropriate graduate program/department at that time.

Important factors in the evaluation of applications are general academic performance, background in the biological and chemical sciences and mathematics, Graduate Record Examination (GRE) scores, and letters of recommendation from college professors. The department does not admit students to the M.S. program.

Degree Requirements

*For additional details and requirements refer to the department's [Graduate Student Handbook](#) and the [Graduate College Handbook](#).

Master of Science

Required courses	Required Hours
MCB 501, 502, 580, and 529 AB1 and AB2	14
CDB 595 A and C	2
MCB 581, 582 and 583	15
Coursework from an approved list to bring total hours to:	32
Total Hours:	32
Other Requirements:	
Completion of one of the following: Pass the qualifying exam, or approval of the graduate program committee (chaired by a tenured CDB faculty member and comprised of at least 5 CDB faculty members), or by approval of the research advisor and department head.	
Minimum GPA:	2.75
Qualifying Exam Required:	No
Preliminary exam required:	No
Final Exam/Dissertation Required:	No
Dissertation Deposit Required:	No

Doctor of Philosophy

Required Courses	Required Hours	
MCB 501, 502, 580, and 529 AB1 & AB2	14	
CDB 595 A and C	2	RECEIVED
MCB 581, 582 and 583	15	JUL 27 2010
Elective hours to bring total course work hours to	32	GRADUATE COLLEGE
Thesis Hours Required– CDB 599 (min/max applied toward degree):	64	
Total Hours	96	
Other Requirements:		
The department requires each graduate student to teach the equivalent of 50% for one semester.		
Minimum GPA;	3.0	
Masters Degree Required for Admission to PhD?	No	
Qualifying Exam Required	Yes	
Preliminary Exam Required	Yes	
Final Exam/Dissertation Defense Required	Yes	
Dissertation Deposit Required	Yes	

Medical Scholars Program

The Medical Scholars Program permits highly qualified students to integrate the study of medicine with study for a graduate degree in a second discipline, including Cell and Developmental Biology. Students may apply to the Medical Scholars Program prior to beginning graduate school or while in the graduate program. Applicants to the Medical Scholars Program must meet the admissions standards for and be accepted into both the doctoral graduate program and the College of Medicine. Students in the dual degree program must meet the specific requirements for both the medical and graduate degrees. On average, students take eight years to complete both degrees. Further information on this program is available by contacting the Medical Scholars Program, 125 Medical Sciences Building, (217) 333-8146 (217) 333-8146 or at www.med.illinois.edu/msp.

Graduate Teaching Experience

Experience in teaching is considered a vital part of the graduate program and is required as part of the academic work of all Ph.D. candidates in this program.

Facilities and Resources

Facilities include modern, well-equipped laboratories for cellular, developmental, genetic, molecular, and structural studies. The University offers exceptional and broadly based research support services. These include the Center for Electron Microscopy, with state-of-the-art instrumentation; the Center for Biotechnology, which includes facilities for molecular cloning, DNA and protein synthesis and sequencing, and transgenic animals; the Cell Science Center, which houses and staffs a hybridoma facility and flow

cytometry unit; School of Molecular and Cellular Biology-subsidized shops; and a superb university library system, the third largest in the nation. The University offers outstanding computer services and is home to the National Center for Supercomputing Applications. The Beckman Institute for Advanced Science and Technology combines research in the physical and biological sciences. Opportunities for interaction in the cellular and molecular sciences are also available in many other units within the Schools of Molecular and Cellular Biology, Integrative Biology, and Chemical Sciences and the Colleges of Medicine, Agricultural, Consumer and Environmental Sciences, and Engineering.

Financial Aid

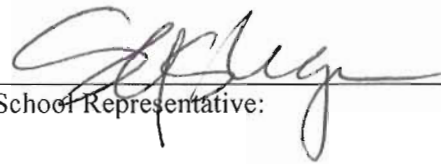
Financial aid is available to qualified applicants in the form of university fellowships (awarded on a competitive basis), teaching assistantships (awarded by the department), research assistantships, and tuition and fee waivers. Outstanding applicants are nominated for support from the Cell and Molecular Biology, Molecular Biophysics.

CLEARANCES: (Clearances should include signatures and dates of approval) - - These signatures must appear on a separate sheet. If multiple departments or colleges, add lines.)

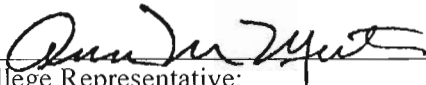
Signatures:


Department Representative:

6/22/2010
Date:


School Representative:

6/22/2010
Date:


College Representative:

7/22/10
Date:


Graduate College Representative:

4/12/11
Date:

Provost Representative:

Date:

Educational Policy Committee Representative:

Date:

Appendix A:
(Budgetary and Staff Implications)
(Replace following material with your appendix, if any.)
New Degree Programs – Required Budgetary Implication Questions

1) How does the unit intend to financially support this program?

In practice we have supported this program since the establishment of the department and anticipate that this proposal will actually result in reduced duplication of effort and a net financial savings. The standard in our field is that graduate students are admitted to Ph.D. programs, not masters programs. In the overwhelming majority of graduate programs masters degrees are awarded only to those graduates students who have made significant progress but are either not suitable Ph.D. candidates or opt not to complete a Ph.D.. In the past our department faculty and administration has had the primary role in mentoring and advising such students and we thoroughly review their cases before they apply to the Masters Biology program as a formal mechanism for conferring the degree. The Biology Masters program then re-reviews the case; thus the current system involves a duplication of effort. Therefore, we anticipate this proposal will result in a reduction of effort and net financial savings.

2) Will the unit need to seek campus or other external resources?

No, as described above we have performed this service since the formation of our department in 1988.

3) If no new resources are required, how will the unit create capacity or surplus to appropriately resource this program? (What functions or programs will the unit no longer support?)

See 1, above.

4) Please provide a market analysis: What market indicators are driving this proposal? What type of employment outlook should these graduates expect? What resources will be required to assist students with job placement?

Substantial resources are already in place to assist in job placement. The biotechnology career services program of the Biotechnology center on campus already provides extensive job placement and career development services for a range of students including MS students. Details of these services can be found at: <http://www.biotech.uiuc.edu/career/>.

5) If this is a proposed graduate program, please discuss the programs intended use of waivers. If the program is dependent on waivers, how will the unit compensate for lost tuition revenue?

See 1, above.

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

University Library
Office of University Librarian
and Dean of Libraries
230 Main Library, MC-522
1408 West Gregory Drive
Urbana, IL 61801



June 21, 2010

David H. Rivier
Associate Professor
Department of Cell and Developmental Biology
B107 Chemical and Life Science Lab.
MC-123

Dear Dr. Rivier:

Thank you for giving the University Library the opportunity to review the Department of Cell and Developmental Biology's proposal to the Senate Committee on Educational Policy to establish a new Master of Science in Cell and Developmental Biology. Based upon the proposal that we reviewed, it is our understanding that this degree will provide an option for those who entered the CDB program to obtain a Ph.D. to terminate their Ph.D. program early and obtain a Master's degree instead. The proposal materials that you provided to the University Library do not lead us to believe that there will be an appreciable impact on our operations or collections.

If additional services or materials are required as the program develops—particularly in its graduate offerings, we will be happy to discuss securing the requisite resources with the program sponsors.

Sincerely,

Paula Kaufman
Juanita J. and Robert E. Simpson
Dean of Libraries and University Librarian

c: Thomas Teper
Katie Newman
Diane Schmidt