

College of Medicine

ANATOMY AND CELL BIOLOGY

Mailing Address: Department of Anatomy and Cell Biology (MC 512)
Room 578 CME
808 South Wood Street
Chicago, IL 60612-7308

Campus Location: 578 CME

Program Codes: 20FS1024MS (MS);
20FS1024PHD (PhD)

Telephone: (312) 996-6791

E-mail: conwell@uic.edu

Web Site: <http://www.uic.edu/depts/mcan/>

Head of the Department: Scott T. Brady

Director of Graduate Studies: Conwell Anderson

The Department of Anatomy and Cell Biology offers work leading to degrees in Anatomy and Cell Biology at both the master's and doctoral levels, and participates in the MD/PhD joint degree program (see the *MD/PhD* section for more information). Areas of study include neurobiology, cell biology, and developmental biology. There is a strong emphasis on interdisciplinary studies that examine the relationship between structure and function. Research leading to a graduate degree is available in the following areas: neurobiology of the synapse, axonal transport, cytoskeleton, and response to stress; sensory systems; neuroplasticity; Alzheimer's disease, ion channel regulation, cell motility, connective tissue, and stem cell biology. The Interdepartmental Concentration in Neuroscience is available to doctoral students.

ADMISSION REQUIREMENTS

Applicants are considered on an individual basis. Transcripts of all undergraduate and any graduate work must be submitted. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

Baccalaureate Field Biology or a closely related field. Students who have majored in other fields may be admitted if they show substantial evidence of ability to complete the program.

Grade Point Average At least 2.75/4.00 for the final 60 semester (90 quarter) hours of undergraduate study.

Tests Required GRE General.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Three required.

Personal Statement Required. The statement must address the applicant's research interests and career goals.

Other Requirements Preference for admission is given to students who intend to complete a doctoral program.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 32.

Course Work All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, and 510. At least 3 additional semester hours must be in 500-level courses specifically related to the thesis research proposed.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options Thesis required. No other options are available.

Other Requirements All graduate students must serve once as laboratory teaching assistants for one of the following: Tissue Biology, Neuroanatomy, or one section of Gross Human Anatomy.

Doctor of Philosophy

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, and 510. At least 6 additional semester hours must be in 500-level courses specifically related to the dissertation research proposed.

Preliminary Examination Required; oral examination based on dissertation proposal.

Dissertation Required.

Other Requirements All graduate students must serve once as laboratory teaching assistants for one of the following: Tissue Biology, Neuroanatomy, or one section of Gross Human Anatomy.

Interdepartmental Concentration in Neuroscience

Doctoral students may pursue the Interdepartmental Concentration in Neuroscience. Refer to *Interdepartmental Concentration in Neuroscience* in the *Graduate College* section for more information.



BIOCHEMISTRY AND MOLECULAR GENETICS

Mailing Address: Department of Biochemistry and Molecular Genetics (MC 669)
900 South Ashland Avenue
Chicago, IL 60607-7170

Campus Location: 2150 MBRB

Program Codes: 20FS1069MS (MS);
20FS4050PHD (PhD)

Telephone: (312) 996-6984

E-mail: phyllisg@uic.edu

Web Site: <http://www.uic.edu/com/bcmg/>

Head of the Department: Jack Kaplan

Co-Directors of Graduate Studies: Alisa Katzen,
Lester F. Lau

The Department of Biochemistry and Molecular Genetics offers work leading to the Master of Science degree in Biochemistry and Molecular Biology and the Doctor of Philosophy degree in Biochemistry and Molecular Genetics, and participates in the MD/PhD (see the *MD/PhD* section for more information). The department has active, well-funded research programs in the molecular biology of growth and development, oncogenesis, metabolic regulation, macromolecular structure and function, signal transduction, and the biochemical basis of diseases. The Interdepartmental Concentration in Neuroscience is available to doctoral students.

ADMISSION REQUIREMENTS

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

Baccalaureate Field No restrictions. Prior academic work should include 16 semester hours of chemistry (including organic chemistry, physical chemistry, and quantitative analysis), and at least one advanced course in biology.

Grade Point Average At least 2.90/4.00 for the final 60 semester (90 quarter) hours of undergraduate study.

Tests Required GRE General.

Minimum TOEFL Score 570 (paper-based); 230 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Required.

Personal Statement Required.

Deadlines The application deadline for this program is earlier than the Graduate College deadline; contact the program for information on current deadlines.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 32.

Course Work Two tracks (thesis and nonthesis) are available to students in this program.

Required Courses: GCLS 501; 502 or 503; 504; 505; 2 semesters of BCHE 595; BCHE 598. Students enrolled in the nonthesis track must also take 3 semesters of BCHE 521 (or equivalent); both GCLS 502 and 503; and are not required to take BCHE 598.

Electives: Students must take 9 hours of electives in the second semester of the first year choosing from BCHE 513, GCLS 510, GCLS 511, or other 500-level courses. All elective courses are subject to the approval of the departmental graduate committee.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options Thesis or course work only. No other options are available.

Thesis: Thesis students must earn at least 12 semester hours in BCHE 598.

Other Requirements Supervised part-time teaching experiences during one term of each year are regularly assigned to students in the program.

Doctor of Philosophy

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work *Required Core:* All students must take or show proficiency in GCLS 501, 502, 503, 504, and 505; GCLS 506 or BCMG 503; 6 semesters of BCMG 515; BCMG 575; BCMG 595 every semester; BCMG 501.

Electives: Two 500-level electives chosen from the following: GCLS 510, GCLS 511, GCLS 515, BCHE/BCMG 513, PHYB 586.

Preliminary Examination Required. Students take a preliminary qualifying examination for advancement to PhD candidacy at the end of their second year of study. This examination will test a student's ability to design and orally defend a scientific research plan as well as his/her general knowledge of biochemistry and molecular genetics.

Dissertation Required. A defined research experience and completion of an approved thesis is required. The thesis will be presented in a public forum and defended in front of a faculty jury. The research presented in the thesis is expected to be of publishable quality.

Other Requirements Supervised part-time teaching experiences during one term of each year are regularly assigned to students in the program. The department requires every degree candidate to fulfill teaching assignments, regardless of the source of financial support for the student.

Interdepartmental Concentration in Neuroscience

Doctoral students may pursue the Interdepartmental Concentration in Neuroscience. Refer to *Interdepartmental Concentration in Neuroscience* in the *Graduate College* section for more information.



GRADUATE EDUCATION IN MEDICAL SCIENCES

Mailing Address: College of Medicine (MC 784)
1853 West Polk Street
Chicago, IL 60612

Campus Location: Suite 300, Room 324 CSN

Program Code: 20FS8060PHD

Phone: (312) 355-0389

Fax: (312) 355-0389

E-mail: gemsinfo@uic.edu

Web Site: <http://gems.comd.uic.edu/>

Co-Directors: William Hendrickson and Buck Hales

Program Administrator: Mia Johnson

The GEMS Program offers students integrated training in the biomedical sciences. PhD programs include the areas of Anatomy, Biochemistry, Biophysics, Cell and Molecular Biology, Genetics, Immunology, Microbiology, Neurosciences, Pharmacology, and Physiology. Students have the flexibility to choose a mentor from among more than 150 funded research faculty in all departments and PhD programs of the College of Medicine. Areas of research excellence within the broader disciplines include cancer; development; gene regulation; host-pathogen biology; lung biology; molecular and integrated cardiac and vascular biology; proteomics, genomics, and bioinformatics; reproductive biology; signal transduction; and virology.

ADMISSION REQUIREMENTS

Students apply using the GEMS PhD program code and list in order of preference up to three of the participating departments as an area of interest. Participating departments are: Anatomy and Cell Biology, Biochemistry and Molecular Genetics, Microbiology and Immunology, Pharmacology, and Physiology and Biophysics. Specific requirements are listed under each participating graduate program. In general, students should have the following:

Baccalaureate Field No restrictions. Applicants must have a satisfactory record of courses in biology, inorganic and organic chemistry, and at least one year of physics and mathematics.

Grade Point Average At least 2.75/4.00 for the final 60 semester hours of undergraduate study. Preference is given to those applicants who have a GPA greater than 3.00.

Tests Required GRE General. This test should be taken prior to submission of the formal application. Preference is given to applicants with a combined verbal and quantitative, above 1200 and analytical writing above 4.0.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80 (new Internet-based TOEFL).

Letters of Recommendation Required.

Personal Statement Required.

Other Requirements Preference is given to applicants with a documented record of research accomplishment.

DEGREE REQUIREMENTS

GEMS students engage, during their first year of study, in a core curriculum that focuses on the fundamentals of biochemistry and cell and molecular biology, and integrates these with topics in molecular medicine and physiology. Beginning in the second semester, students elect to take a variety of courses with the goal of concentrating more selectively within a chosen area of interest.

Students initially pick three or four potential mentors in whose laboratories they spend 10-week rotations during the first year. At the end of their first year, students select a mentor and College of Medicine department with whom they will undertake their thesis research. The PhD is granted in the program that the student selects.

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work Required Courses: All students must take or show proficiency in GCLS 501, 502, 503, 504, 505. Students must take additional 500-level courses as specified by their chosen PhD program.

Preliminary Examination Required.

Dissertation Required. Students must earn at least 52 hours in MIM 599.

Other Requirements During the second year of graduate study students must pass a preliminary exam in a format specified by their chosen department.

HEALTH PROFESSIONS EDUCATION

Mailing Address: Department of Medical Education
(MC 591)
808 South Wood Street
Chicago, IL 60612-7309

Campus Location: 986 CME

Program Code: 20FS1306MHPE

Telephone: (312) 996-3590

E-mail: ibharris@uic.edu

Web Site: <http://www.uic.edu/com/mcme/mhpeweb/Home.html>

Head of the Department: Leslie J. Sandlow

Director of Graduate Studies: Ilene Harris

The Department of Medical Education offers a program of studies leading to the Master of Health Professions Education (MHPE) degree. The purpose of the MHPE program is to provide the training necessary to produce effective leaders and scholars in health professions education. Disciplinary and interdisciplinary offerings are available on topics related to management and leadership in health professions education, scholarship methods, curriculum, instruction, competence assessment, program evaluation, quality assessment, primary care education, clinical decision making, and medical humanities and ethics. The Interdepartmental Concentration in Gender and Women's Studies is available to students in this program.





ADMISSIONS REQUIREMENTS

Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Health Professions Education

Baccalaureate Field Applicants must hold a baccalaureate degree or an advanced professional degree in a health professions discipline.

Other Requirements At least 3.00/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate study.

Tests Required None.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Three required.

Personal Statement Required. The statement should address the applicant's professional goals.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Health Professions Education

Minimum Semester Hours Required 32.

Course Work Required Courses: MHPE 501, 502, 503, and 504. Students must also complete 6–10 semester hours of electives, 4 of which must be in a content area related to their thesis.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options: Thesis. No other options available.

Thesis: Students must earn at least 6 semester hours in MHPE 598; no more than 10 semester hours of MHPE 598 can be applied to the degree.

Interdepartmental Concentration in Gender and Women's Studies

Students earning an MHPE degree in the Department of Medical Education may complement their courses by enrolling for a concentration in Gender and Women's Studies after consulting with the director of graduate studies. See *Gender and Women's Studies* in the *College of Liberal Arts and Sciences* section for more information.

MD/PHD TRAINING PROGRAM

Mailing Address: MD/PhD Training Program
College of Medicine c/o Office of
the Dean (MC 784)
1853 West Polk Street
Chicago, IL 60612

Campus Location: Suite 3000 CSN

Telephone: (312) 996-7473

E-mail: Roberta@uic.edu

Web Site: <http://www.uic.edu/com/mdphd/>

Program Director: Larry S. Tobacman

Program Coordinator: Roberta L. Bernstein

The UIC College of Medicine offers a select number of students the opportunity to work toward both the MD and PhD degrees. The objective of the program is to train students for careers in academic medicine and research. Students admitted to this highly competitive program participate in the medical school curriculum and pursue original doctoral research projects in the laboratories of the university's graduate faculty.

The first two years of the program are used to complete the M-1 and M-2 years of the medical curriculum. Students enter "at large," that is, without affiliation to a particular graduate department. During this time, they may explore research opportunities in any academic department of the College of Medicine and selected graduate departments. A series of seminars designed for new MD/PhD students provides an overview of opportunities for research. After admission, the students complete several rotations through the laboratories of several potential advisers before a choice is made. An ongoing series of seminars is presented to MD/PhD students in all stages of the program by the faculty and invited physician-scientists from other academic health science centers. These seminars enhance the students' general knowledge and help to develop new approaches toward the investigation of problems in biomedical research. The seminar series, along with the annual research day and other gatherings with faculty, serve to bring together trainees and preceptors.

Choice of a permanent thesis adviser and graduate department take place by the end of the second year. Students in the graduate phase of the program work side-by-side with PhD students in the basic sciences and meet all departmental requirements for the PhD degree. Original publications and presentations at national biomedical science meetings are often accomplished.

In the PhD phase of the program, students may associate with one of the five basic science departments of the College of Medicine (see descriptions in this section), with the Neuroscience Program, or with one of many program-approved departments across the university. In the final two years of the program, MD/PhD candidates rejoin other medical students to complete the remaining medical school requirements. Third- and fourth-year clerkships include medicine, surgery, pediatrics, obstetrics and gynecology, neurology and psychiatry, among other disciplines.

Graduates of the program have routinely gained admission to the most competitive residency programs at many of the premier academic institutions in the country.

ADMISSION REQUIREMENTS

Application to the program requires completion of both the MD/PhD Training Program application and application through AMCAS to the University of Illinois College of Medicine. The application form is available on the program's Web site <http://www.uic.edu/com/mdphd>. It is recommended that applicants request 1 or 2 additional letters of recommendation to be sent directly to the program which focus on the applicant's research experience. The MCAT examination, which is required for COM application, is accepted by the MD/PhD program in lieu of the GRE examination. Students should apply in the autumn of the year preceding admission to provide the fullest opportunity for consideration, since a rolling admissions procedure is used. A personal interview will be scheduled for each applicant under final consideration for admission.

Application to the program is normally made at the time of application to the College of Medicine. However, candidates will also be considered during their first two years of medical training. Admission to the program requires acceptance by the Admissions Committees of both of the MD/PhD Training Program and the College of Medicine. Criteria for admission to the program include academic excellence, prior research experience, potential for independent and creative research, and commitment to a career in academic medicine. Laboratory work concentrating in biology, chemistry, physics, biophysics, or behavioral sciences is helpful in preparing for study in the MD/PhD program. The admissions policy is flexible enough to accommodate those students who have already identified the field in which they wish to carry out research as well as those who are still undecided about their areas of research specialization. Admission to the MD/PhD Training Program is open to U.S. citizens or permanent residents.

DEGREE REQUIREMENTS

Students in the program complete requirements of the College of Medicine for the MD degree and requirements of their chosen research department for the PhD degree. They must complete and submit their PhD dissertation and complete or schedule its defense before returning to the medical school for the M-3 and M-4 years.

MEDICAL BIOTECHNOLOGY

Mailing Address: U of I College of Medicine at
Rockford
1601 Parkview Avenue
Rockford, IL 61107

Campus Location: U of I College of Medicine at
Rockford

Program Code: 20FS5020MS7

Telephone: (815) 395-5728

E-mail: jlss@uic.edu (Janet Stull-Snow)

Web Site: www.uirockford.com/academic/biomedical/index.htm

Director of Graduate Studies: Dr. Thomas M. Sutliff
The University of Illinois College of Medicine at Rockford offers work leading to the Master of Science in Medical Biotechnology. The program is administered by the Department of Biomedical Sciences.

The Master of Science in Medical Biotechnology will train students in the major techniques and disciplines in biotechnology. Course subjects may include recombinant DNA and genomics, protein production and proteomics, federal regulatory issues, biological systems, and physiology. In addition, students will receive direct experience with many of the analytical and testing techniques used in the biotechnology and healthcare industries along with an introduction to pertinent regulatory issues and basic training in program management and product development techniques.

A unique aspect of this program is the focus on Medical Biotechnology, where students are trained in the medically focused aspects and considerations of biotechnology. Instructors with industrial biotechnology experience and practicing physicians will participate in the experience directed course work and research activities.

The majority of the classes will be offered in the evenings or weekends, thereby allowing student to earn their MS degree while still working full- or part-time.

ADMISSIONS REQUIREMENTS

In addition to the Graduate College minimum requirements, applicants must meet the following admissions requirements:

Master of Science

Baccalaureate Field A baccalaureate degree or its equivalent in a science or engineering related field from an accredited college or university will be required, except in special cases. Prior academic work should include college mathematics through calculus, general biology, general and organic chemistry or the equivalent engineering courses.

Generally qualified candidates may be required by the department to remove specific course work deficiencies by completing selected undergraduate courses prior to matriculation or graduation.

Other Requirements At least 3.00/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate study. The student's grade point average for any postbaccalaureate course work must be 3.00/4.00 or greater.

Transcripts Required from all institutions where the applicant earned the last 60 semester hours (90 quarter hours) of credit toward the baccalaureate degree and from all institutions where postbaccalaureate work has been done.

Tests Required GRE General is required and GRE Subject Test in Biology or Chemistry is recommended. Exceptions to the GRE requirement are made on a case-by-case basis.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 20, Listening 18, Speaking 21, and Writing 21 (new Internet-based TOEFL). The TOEFL Internet-based Test (iBT) is the preferred test. **Note:** Exemptions to the TOEFL requirement are as stated in the UIC Graduate College Application Instructions, page 4.





Letters of Recommendation Three required. If applicant is employed one of the letters of reference must come from the employer confirming employer commitment to student participation. The other letters should be from former professors, teachers, or persons who can refer the candidate based on personal experience with the candidate's professional competence.

Personal Statement Required; statement of career goals.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 34 for project option, 38 for thesis option.

The research project option is directed toward students who wish to conduct their research in an industrial lab with the associated legal requirements. The thesis option is a more traditional master's research option which is conducted in university laboratories or laboratories affiliated directly with the university and follows the university requirements for intellectual property.

Course Work Required Courses: MBT 500, MBT 501, MBT 502, MBT 503, MBT 510, MBT 513, MBT 595, MBT 597 or MBT 598, and BSTT 400.

Electives: At least 6 hours.

Comprehensive Examination Not required.

Thesis, Project, or Course-Work-Only Options Thesis or project. No other options are available.

Thesis: Thesis students must earn at least 12 hours in MBT 598. A maximum of 14 hours in MBT 598 may be used to meet degree requirements.

Project: Project students must earn at least 8 hours in MBT 597.

MICROBIOLOGY AND IMMUNOLOGY

Mailing Address: Department of Microbiology and Immunology (MC 790)
835 South Wolcott Avenue
Chicago, IL 60612-7344

Campus Location: E-704 MSB

Program Codes: 20FS1468MS (MS);
20FS1468PHD (PhD)

Telephone: (312) 996-9477

E-mail: mimi@uic.edu

Web Site: <http://www.uic.edu/depts/mcmi/index2.html>

Head of the Department: Bellur Prabhakar

Director of Graduate Studies: William Hendrickson

The Department of Microbiology and Immunology offers work leading to the Master of Science and the Doctor of Philosophy degrees

and participates in the MD/PhD joint degree program (see the *MD/PhD* section of the catalog for more information). The department carries out basic research in the areas of immunology, virology, and microbial molecular biology. Research leading to a graduate degree is available in the general areas of molecular, cellular, and tumor immunology; molecular biology and genetics of prokaryotes; and molecular biology of eucaryotic cells and viruses.

ADMISSION REQUIREMENTS

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

Baccalaureate Field No restrictions. Applicants must have a solid background in biology and inorganic and organic chemistry, and at least one year of physics and mathematics.

Other Requirements At least 2.75/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate study. Preference is given to those applicants who have a GPA greater than 3.00.

Tests Required GRE General. This test should be taken prior to submission of the formal application. Preference is given to applicants with a combined verbal and quantitative score above 1200, and analytical writing above 4.0.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Required.

Personal Statement Required.

Other Requirements Preference is given to applicants with a documented record of research accomplishment who intend to complete the doctoral program.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 34.

Course Work Required Courses: All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, 510, and 511.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options *Thesis:* Required. No other options are available. Students must register in MIM 598 for 9 semester hours.

Doctor of Philosophy

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work Required Courses: Nine hours of MIM 455. All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, 510, and 511. In addition students must take MIM 594 for 1 hour, and 2 additional 500-level courses, MIM 551 and MIM 553 are recommended. Four additional hours of MIM 595 and 52 semester hours of MIM 599 are required.

Preliminary Examination Required.

Dissertation Required. Students must earn at least 52 hours in MIM 599.

Other Requirements During the second year of graduate study, students must conduct a satisfactory oral defense of a written research proposal that is different from their thesis subject. All graduate students, regardless of their means of financial support, must participate in the teaching programs of the department for one semester of each academic year. This requirement includes experiences in laboratory instruction, lecturing, and audiovisual presentations.

MD/PhD

Students with an MD degree earned in the United States or who are working toward one at UIC may use medical science courses to fulfill the 500-level course requirements. Such students must take 3 semester hours of MIM 455; one credit of MIM 594; 6 semester hours of MIM 595; and 59 semester hours of MIM 599. Other courses required will be determined by the graduate committee based on the student's area of interest.

PHARMACOLOGY

Mailing Address: Department of Pharmacology
(MC 868)
835 South Wolcott Avenue
Chicago, IL 60612-7343

Campus Location: E-403 MSB

Program Codes: 20FS1564MS (MS);
20FS1564PHD (PhD)

Telephone: (312) 355-3281

E-mail: rskidgel@uic.edu; tmg@uic.edu

Web Site: <http://www.uic.edu/depts/mcph/>

Head of the Department: Asrar B. Malik

Directors of Graduate Studies: Randal A. Skidgel
and Thomas M. Guenther

The Department of Pharmacology offers work leading to a degree in Pharmacology at the doctoral level and participates in the MD/PhD joint degree program (see the *MD/PhD* section for more information). The Interdepartmental Concentration in Neuroscience is also available. The department is particularly strong in research on signal transduction, vascular biology, inflammation, cardiovascular pharmacology, and neuropharmacology. Research in these areas is pursued at the molecular, cellular, organ-system, and whole-animal levels of investigation.

ADMISSION REQUIREMENTS

Applicants are considered on an individual basis. In addition to the Graduate College minimum

requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

Baccalaureate Field No restrictions. Prior academic work should include chemistry, biology, physics, and math. Biochemistry, cell biology, molecular biology, and physiology are also helpful.

Other Requirements At least 2.75/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate study.

Tests Required GRE General. Preference is given to applicants with a combined verbal and quantitative GRE score of at least 1100 and an analytical writing score of at least 4.5.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Required.

Personal Statement Required. One page summarizing past academic and research experience (if any) and motivation for pursuing a PhD in Pharmacology.

Nondegree Applicants Nondegree applicants must show adequate preparation to enroll in desired courses and must obtain the permission of the director of graduate studies.

Master of Science Applicants The department does not admit students to a master's program. A student in the PhD program may be awarded a terminal master's degree if he or she decides not to complete the PhD, provided enough research has been accomplished to write and defend a thesis.

DEGREE REQUIREMENTS

Master of Science

Minimum Semester Hours Required 32.

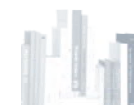
Course Work Required Courses: All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, 510. In addition, students must take GCLS 515 and PCOL 501 and 502. Students in their second year and beyond must also register for PCOL 595 and 599 each semester.

Electives: At least 2 semester hours must be in 500-level didactic courses in the department.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options Thesis required. No other options are available.

Other Requirements Students may be called upon to assist in aspects of teaching and research activities of the department. Students are expected to attend special seminars sponsored by the department.





Doctor of Philosophy

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work Required Courses: All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, 510. In addition, students must take GCLS 515 and PCOL 501 and 502. Students in their second year and beyond must also register for PCOL 595 and 599 each semester.

Electives: At least 2 semester hours must be in 500-level didactic courses in the department.

Preliminary Examination Required.

Dissertation Required.

Other Requirements Students may be called upon to assist in aspects of the teaching and research activities of the department. Students are expected to attend special seminars sponsored by the department.

Interdepartmental Concentration in Neuroscience

Doctoral students may pursue the Interdepartmental Concentration in Neuroscience. Refer to *Interdepartmental Concentration in Neuroscience* in the *Graduate College* section for more information.

MD/PhD

Students with an MD degree earned in the United States or who are working toward one at UIC may use medical science courses to fulfill most of the 500-level course requirements. Such students must take GCLS 515 and 2 semester hours of an elective 500-level didactic course in the department. Students must also register for PCOL 595 and 599 each semester. Other courses may be required as determined by the adviser and the graduate committee based on the student's area of interest.

PHYSIOLOGY AND BIOPHYSICS

Mailing Address: Department of Physiology and Biophysics (MC 901)
835 South Wolcott Avenue
Chicago, IL 60612-7342

Campus Location: E202 MSB

Program Codes: 20FS1584MS (MS);
20FS1584PHD (PhD)

Telephone: (312) 996-7620

E-mail: phyb@uic.edu

Web Site: <http://www.uic.edu/depts/mcpb/index2.html>

Head of the Department: R. John Solaro

Director of Graduate Studies: Jesús García-Martínez

The Department of Physiology and Biophysics offers work leading to a doctoral degree, and participates in the MD/PhD joint degree program (see the *MD/PhD* section for more information). The Interdepartmental Concentration in Neuroscience is available. The department is oriented toward the study of mammalian physiology. Students are initially immersed in an integrated curriculum and later they complete

specialized training in an area of physiology of their choice: Cardiovascular Physiology and Metabolism, Cytoskeleton and Vascular Biology, Gastrointestinal Physiology, Neurosciences, Reproductive and Endocrine Sciences, Signal Transduction and Gene Regulation, Smooth and Skeletal Muscle Physiology. All areas focus on the integrative aspects of physiology, studying gene expression to the whole organism.

ADMISSION REQUIREMENTS

Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

Baccalaureate Field No restrictions. Prior academic work should include college mathematics through calculus, physics, biology, organic chemistry, and physical chemistry.

Other Requirements At least 3.00/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate study.

Tests Required GRE General.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Three required.

Personal Statement Required. One page summarizing past academic and research experience (if any) and motivation for pursuing a PhD in Physiology.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 32.

Course Work Required Courses: PHYB 551, 552, 595, and 598. Students must also register for PHYB 591 each fall and spring semester after the first year they are enrolled in the graduate program. All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, and 510.

Comprehensive Examination Required.

Thesis, Project, or Course-Work-Only Options Thesis required. No other options are available.

Other Requirements All graduate students must participate in the teaching programs of the department.

Doctor of Philosophy

Minimum Semester Hours Required 96 from the baccalaureate.

Course Work Required Courses: PHYB 551, 552, 586, 595, 599, and 2 additional 500-level

courses. Students must also register for PHYB 591 each fall and spring semester after the first year that they are enrolled in the graduate program. All students must take or show proficiency in GCLS 501, 502, 503, 504, 505, and 510.

Preliminary Examination Required.

Dissertation Required.

Other Requirements All graduate students must participate in the teaching programs of the department. Candidates must present a mid-thesis seminar as a scheduled departmental seminar.

Interdepartmental Concentration in Neuroscience

Doctoral students may pursue the Interdepartmental Concentration in Neuroscience. Refer to *Interdepartmental Concentration in Neuroscience* in the *Graduate College* section for more information.

SURGERY

Mailing Address: Department of Surgery (MC 958)
840 South Wood Street
Chicago, IL 60612-7322

Campus Location: 518 CSB

Program Code: 20FS1721MS

Telephone: (312) 996-6765

E-mail: jespat@uic.edu

Web Site: <http://www.uic.edu/com/surgery/>

Head of the Department: Herand Abcarian, MD, FACS

Director of Graduate Studies:

N. Joseph Espot, MD, MS FACS

The Department of Surgery offers work leading to the Master of Science in Surgery. The aim of the program is to introduce the surgeon-in-training to the methods of scientific research in preparation for a career as a research physician. While pursuing a specific research project in depth, the student is expected to maintain contact with clinical science as a participant in the activities of the Department of Surgery.

ADMISSION REQUIREMENTS

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science

Prior Degrees Applicants must have an MD or equivalent medical degree.

Other Requirements At least 3.75/4.00 for the final 60 semester (90 quarter) hours of undergraduate study.

Tests Required GRE General. Recent graduates may substitute the MCAT.

Minimum TOEFL Score 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).

Letters of Recommendation Contact the director of graduate studies for information.

Personal Statement Contact the director of graduate studies for information.

Other Requirements Applicants must be enrolled in or have completed an approved residency program.

DEGREE REQUIREMENTS

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

Minimum Semester Hours Required 32.

Course Work At least 9 hours must be at the 500-level. Students must take at least three graduate-level courses other than SURG 597 or 598, including a course in statistical methods.

Comprehensive Examination None.

Thesis, Project, or Course-Work-Only Options Thesis or project required. No other options are available.



