Molecular & Integrative Physiology, MS

for the degree of Master of Science in Molecular & Integrative Physiology

The Department of Molecular & Integrative Physiology (MIP) does not admit students to the Molecular & Integrative Physiology MS degree program. Admission to graduate study is only through the PhD degree program. Information about the Molecular & Integrative Physiology degree PhD program can be found here (http://catalog.illinois.edu/graduate/las/molecular-integrative-physiology-phd/).

Graduate Degree Program in Molecular & Integrative Physiology

Molecular & Integrative Physiology, PhD (http://catalog.illinois.edu/graduate/las/molecular-integrative-physiology-phd/)

The PhD program in molecular and integrative physiology is designed to provide individualized training in preparation for research and teaching careers in molecular, cellular, and integrative physiology. The objective of the training is to produce scientists who are technically competent and broadly educated. Students interested in the MIP PhD program must apply directly to the School of Molecular and Cellular Biology (http://mcb.illinois.edu/). 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 at that time.

Admission

Applicants interested in the Molecular & Integrative Physiology PhD program will need to apply directly to the School of Molecular and Cellular Biology (MCB) PhD program (https://mcb.illinois.edu/graduate/gradprospect/). The MCB PhD program is an umbrella program that requires admitted students to spend their first semester rotating among three different labs to explore their interests before joining one of our four departments.

MCB Admission requirements include a bachelor’s degree in biological or physical sciences, a grade point average of a 3.0 or higher (A = 4.0), prior research experience, and three letters of recommendation from individuals who can attest to the applicant’s academic and research background. The Graduate Record Examination (GRE) is not required. Applicants interested in pursuing a PhD in Molecular & Integrative Physiology should have a strong background in biology, chemistry, and mathematics. In addition to these requirements, non-native English speaking applicants must attain a minimum Test of English as a Foreign Language (TOEFL) overall score of 96, with a score of at least 22 on the speaking section. MCB does not accept the International English Language Testing System (IELTS) to show English proficiency. Graduate College requirements also apply.

Information listed in this catalog is current as of 07/2023
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>MCB 461</td>
<td>Cell &amp; Molecular Neuroscience</td>
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<tr>
<td>MCB 462</td>
<td>Integrative Neuroscience</td>
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<tr>
<td>MCB 571</td>
<td>Bioinformatics</td>
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<td>MCB 480</td>
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<td>MCB 493</td>
<td>Special Topics Mol Cell Biol (Human Metabolic Disease)</td>
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<td>ECE 480</td>
<td>Magnetic Resonance Imaging</td>
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<td>ANSC 542</td>
<td>Applied Bioinformatics</td>
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<td>ANSC 554</td>
<td>Immunobiological Methods</td>
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**Journal-Club Format**

- MCB 530: Reproductive Physiol Seminar 1

**Laboratory Format**

- MCB 403: Cell & Membrane Physiology Lab 1 or 2
- MCB 404: Sys & Integrative Physiol Lab 1 to 2
- BIOC 455: Technqs Biochem & Biotech 4
- ECE 415: Biomedical Instrumentation Lab 2

These courses need to be approved to count:

- MCB 493: Special Topics Mol Cell Biol
- MCB 529: Special Topics in Cell and Developmental Biology
- NEUR 520: Advanced Topics in Neuroscience
- MIP Seminars in Physiology

for the degree of Master of Science in Molecular & Integrative Physiology

1. Acquire in-depth, leading-edge knowledge of physiological function at multiple levels of biological organization spanning molecular, cellular, tissue and organismal levels.
2. Learn the skills and methodologies of scientific inquiry necessary to conduct original, independent research in physiology that expands the frontiers of knowledge in the field.
3. Develop the professional skills for responsible conduct of research and embody the ethical principles necessary to behave with honesty, integrity, objectivity, and respect in all professional interactions.
4. To develop effective scientific literacy skills necessary to read, write, critique, and analyze a wide range of written materials, including primary scientific literature, review articles, grant proposals, and teaching materials.
5. To become an effective oral communicator of scientific information in multiple settings, including individual and small group discussions, seminars, classroom instruction, and public engagement.

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Department of Molecular & Integrative Physiology
Head of Department: Claudio Grosman
Director of Graduate Studies: Lori Raetzman
Molecular & Integrative Physiology Department website (https://mcb.illinois.edu/departments/mip/)
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(217) 333-1735
Molecular & Cellular Biology Graduate Admissions email (mcb-grad@illinois.edu)

College of Liberal Arts & Sciences

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