BASIC MEDICAL SCIENCES

Leadership

Thomas P. Burris, Ph.D.
Pharmacology and Physiological Science Chairperson
Enrico Di Cera, M.D.
Biochemistry and Molecular Biology Chairperson
Willis K. Samson, Ph.D.,
Biomedical Science Graduate Program Director
Carole Vogler, M.D.,
Pathology Chairperson
William S. M. Wold, Ph.D.
Molecular Microbiology & Immunology Chairperson

Overview

In addition to contributing strongly to the first two years of the Doctor of Medicine degree curriculum, the pre-clinical, medical-science departments offer post-baccalaureate work leading to the Ph.D. degree. Five offerings, each affiliated with an individual department or center, are available; however, most students admitted for direct Ph.D.-degree study take a common, first-year core in the basic biomedical sciences. Furthermore, studies toward the Ph.D. degree in a medical-science field may be combined with the M.D.-degree curriculum, and the two degrees pursued concurrently by selected students. M.S. (Research or non-Research) and Ph.D. degrees are offered by the Center for Anatomical Science and Education. M.A. (Research or non-Research and Ph.D. degrees are offered by the Medical Family Therapy Program.

Approximately 70 faculty members in the programs of biochemistry and molecular biology, molecular microbiology and immunology, pharmacological and physiological sciences, pathology and the Institute for Molecular Virology provide an almost unlimited variety of research project choices for students. In recognition that successful graduates need a broad background in biomedical science and flexible skills, the first year also includes interdisciplinary lecture courses, small-group discussions and participation in a colloquium series where contemporary developments in the biomedical sciences are presented and discussed. Informed by their experiences in this first year, students then select a Ph.D. mentor in a specific program, such as biochemistry and molecular biology, and continue with their Ph.D. training in that specific program.

Admission to all Ph.D. degree programs in the biomedical sciences is by application to the Core Program in Basic Biomedical Science. This interdisciplinary offering is intended for all students who are interested in biomedical research and/or teaching careers. Its objectives are to provide students with a strong foundation in all aspects of basic biomedical science and the freedom to explore diverse research opportunities during the first year of training. The first-year curriculum combines lectures, small group discussion sessions, and seminars to develop self-confidence and familiarity with a breadth of biomedical science and technology that spans the disciplines of anatomical, biochemical, cellular, molecular, developmental, genetic, and physiological sciences. At the end of this integrated first-year program, students select a dissertation research topic and mentor, and enter into one of four departmental programs in the School of Medicine [Biochemistry and Molecular Biology; Molecular Microbiology and Immunology; Pathology; Pharmacology and Physiology]. The subsequent requirements for completion of the Ph.D. degree vary with the individual program and include specialized advanced courses and the performance of original research leading to completion of the dissertation.

Programs

• Biochemistry and Molecular Biology, Ph.D. (http://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-biochemistry-molecular-biology)
• Biochemistry and Molecular Biology, Ph.D. & Medicine, M.D. Dual Degree (http://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-doctor-medicine-dual-degree)
• Molecular Microbiology & Immunology, Ph.D. (http://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-molecular-microbiology-immunology)
• Pathology, Ph.D. (http://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-pathology)
• Pharmacology & Physiological Science, Ph.D. (http://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-pharmacology-physiological-science)

Faculty

Yuna Ayala, Ph.D.
Ángel Baldán, Ph.D.
Yie-Hwa Chang, Ph.D.
Yoonsang Cho, Ph.D.
Carmine Coscia, Ph.D.
Enrico Di Cera, M.D.
Dale Dorsett, Ph.D.
Joel Eissenberg, Ph.D.
David A. Ford, Ph.D.
Susana Gonzalo, Ph.D.
Tomasz Heyduk, Ph.D.
Jung San Huang, Ph.D.
Claudette Klein, Ph.D.
Sergey Korolev, Ph.D.
Alireza Rezaie, Ph.D.
James Shoemaker, M.D., Ph.D.
Dorota Skowyra, Ph.D.
William S. Sly, M.D.
Alessandro Vindigni, Ph.D.
Mee-Ngan Yap, Ph.D.