BASIC BIOMEDICAL SCIENCES

Leadership
Daniela Salvemini, Ph.D.
Pharmacology and Physiology Chairperson
Enrico Di Cera, M.D.
Biochemistry and Molecular Biology Chairperson
Willis K. Samson, Ph.D., D.Sc.
Biomedical Science Graduate Program Director
Richard DiPaolo, Ph.D.
Molecular Microbiology and Immunology Interim Chairperson

Overview
In addition to contributing strongly to the first two years of the Doctor of Philosophy curriculum, Saint Louis University’s pre-clinical, medical-science departments offer post-baccalaureate work leading to the Ph.D. Three offerings, each affiliated with an individual department at SLU, are available. However, most students admitted for direct Ph.D. study take a common, first-year core in the basic biomedical sciences. Furthermore, studies toward the Ph.D. in a medical-science field may be combined with the M.D. curriculum, and the two degrees pursued concurrently by selected students.

About 50 faculty members in the programs of biochemistry and molecular biology, molecular microbiology and immunology, and pharmacology and physiology, 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 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, and continue their Ph.D. training within that particular program.

Admission to the three Ph.D. programs in the biomedical sciences is by application to the core program in basic biomedical science at SLU. This interdisciplinary offering is intended for all students 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 one of three departmental programs in the SLU School of Medicine: biochemistry and molecular biology; molecular microbiology and immunology; 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 the completion of the dissertation.

Programs
- Biochemistry and Molecular Biology, Ph.D. (https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-biochemistry-molecular-biology/)
- Biochemistry and Molecular Biology, Ph.D. and Medicine, M.D. Dual Degree (https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-doctor-medicine-dual-degree/)
- Molecular Microbiology and Immunology, Ph.D. (https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-molecular-microbiology-immunology/)
- Pharmacology and Physiology, Ph.D. (https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-pharmacology-physiological-science/)

Faculty

Biochemistry and Molecular Biology
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James Shoemaker, M.D., Ph.D.
Dorota Skowyra, Ph.D.

Molecular Microbiology and Immunology
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