

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

Katherine Robbins, M.D.

Pathology Interim Chairperson

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 Medicine degree curriculum, Saint Louis University's pre-clinical, medical-science departments offer post-baccalaureate work leading to the Ph.D. degree.

Four offerings, each affiliated with an individual department or center at SLU, 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. The Medical Family Therapy Program offers M.A. (research or non-research) and Ph.D. degrees.

View More About Biomedical Sciences

About 90 faculty members in the programs of biochemistry and molecular biology, molecular microbiology and immunology, pharmacology and physiology, and pathology 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, such as biochemistry and molecular biology, and continue their Ph.D. training within that particular program.

Admission to the four Ph.D. degree 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 into one of four

departmental programs in the SLU 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 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. & 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/>)
- Pathology, Ph.D. (<https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-pathology/>)
- Pharmacology and Physiology, Ph.D. (<https://catalog.slu.edu/colleges-schools/medicine/biomedical-science/doctor-philosophy-pharmacology-physiological-science/>)

Faculty

Biochemistry and Molecular Biology

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 Skowrya, Ph.D.
 William S. Sly, M.D.
 Alessandro Vindigni, Ph.D.
 Mee-Ngan Yap, Ph.D.

Molecular Microbiology and Immunology

Elise Alspach, Ph.D.
 Rajeev Aurora, Ph.D.
 James Brien, Ph.D.
 Richard J. DiPaolo, Ph.D.
 Stephen Ferris, Ph.D.
 David Griggs, Ph.D.
 Daniel Hawiger, M.D., Ph.D.
 Lynda Morrison, Ph.D.
 Amelia K. Pinto, Ph.D.
 John Tavis, Ph.D.
 Ryan Teague, Ph.D.

Long Ping Victor "Vic" Tse, Ph.D.

Pathology

Katherine J. Robbins, M.D.
Sherri Besmer, M.D.
David S. Brink, M.D.
Danielle H. Carpenter, M.D.
Ashley Ellis, M.D.
Michael Graham, M.D.
Jessenia Guerrero, M.D.
Huazhang Guo, M.D., Ph.D.
Miguel Guzman, M.D.
T. Scott Isbell, Ph.D., DABCC, FACB
Grant R. Kolar, M.D., Ph.D.
Jacki Kornbluth, Ph.D.
Friederike Kreisel, M.D.
Natalie M. Malvik, M.D., M.P.H.
Jane McHowat, Ph.D.
Nancy Phillips, M.D.
Ratna B. Ray, Ph.D.
Emily Reisenbichler, M.D.
Sarah Riley, Ph.D., DABCC, FACB
Jennifer Sehn, M.D.
Kanayo Tatsumi, M.D.

Pharmacology and Physiology

Daniela Salvemini, Ph.D., FASPET
Willis K. Samsom, Ph.D., D.Sc.
Michael Ariel, Ph.D.
Christopher Arnatt, Ph.D.
Andrew A. Butler, Ph.D.
Anutosh Chakraborty, Ph.D.
John C. Chrivia, Ph.D.
Vincenza Cifarelli, Ph.D.
Ian de Vera, Ph.D.
Timothy Doyle, Ph.D.
John C. Edwards, M.D., Ph.D.
Susan A. Farr, Ph.D.
Liberty Francois-Moutal, Ph.D.
Koyal Garg, Ph.D.
Luigi Giancotti, Ph.D.
Ajay K. Jain, M.D., DNB
Mark M. Knuepfer, Ph.D.
Grant Kolar, M.D., Ph.D.
Andrew Lechner, Ph.D.
Heather Macarthur, Ph.D.
R. Scott Martin, Ph.D.
Aubin Moutal, Ph.D.
Andy Nguyen, Ph.D.
John K. Walker, Ph.D.
Fenglian Xu, Ph.D.
Gina Yosten, Ph.D.
Daniel S. Zahm, Ph.D.
Jinsong Zhang, Ph.D.
Silviya Petrova Zustiak, Ph.D.