Department of Biochemistry and Molecular Biophysics

Website: http://biochem.wustl.edu

Research Electives

Biochemistry and Molecular Biophysics Research Electives

During the fourth year, opportunities exist for many varieties of advanced clinical or research experiences.

Wayne M. Barnes, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-3351

Inventing a new way to sequence DNA; PCR at one temp; RT-enabled Taq pol

Greg Bowman, PhD
South Building, 2nd Floor
Phone: 314-362-7433

The Bowman lab seeks to understand how protein dynamics gives rise to functional processes like allosteric communication between distant sites and to exploit our insight into this shape-shifting to design new drugs and proteins.

Peter M.J. Burgers, PhD
South Building, 1st Floor
Phone: 314-362-3872

Molecular biology of DNA replication and damage response in yeast and humans

John Cooper, MD, PhD
South Building, 2nd Floor
Phone: 314-362-0287

Molecular mechanisms of cell motility and cytoskeleton assembly

Carl Frieden, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-3344

Protein folding, aggregation, intrinsically disordered proteins, fluorescence methods, ApoE lipoproteins and Alzheimer's disease

Eric A. Galburt, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-5201

Biophysical studies of transcription initiation in eukaryotes and mycobacterial tuberculosis

Roberto Galletto, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-4368

Mechanistic studies of DNA motor proteins

Michael Greenberg, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-8670

Our lab is focused on cytoskeletal molecular motors in health and disease. We are currently studying the effects of mutations that cause heart disease.

Kathleen Hall, PhD
South Building, 2nd Floor
Phone: 314-362-4196

We study RNA folding and RNA binding to proteins.

Alex Holehouse, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-273-8371

Understand how function is encoded into disordered sequences using a combination of computational and experimental approaches

Jim Janetka, PhD
Cancer Research Building, 2nd Floor
Phone: 314-362-0509

Rational structure-based drug design and synthesis for cancer and infectious disease

Andrzej Krezel, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-8482

Structural biology of transcriptional regulation in the gastric pathogen *Helicobacter pylori*

Weikai Li, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-8687

Structural and biochemical studies of membrane proteins supporting blood coagulation

Timothy M. Lohman, PhD
North Building, 2nd Floor
Phone: 314-362-4393

Mechanisms of DNA-protein interactions; DNA motor proteins (helicases) and SSB proteins

Garland R. Marshall, PhD
Cancer Research Building, 2nd Floor
Phone: 314-935-7911

A major focus is molecular recognition: the basis of intermolecular interactions and specificity seen in drug and hormone receptors and in antigen-antibody and substrate-enzyme systems.

Linda Pike, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-362-9502

Our focus is on the mechanisms of action of growth factors and polyphosphoinositide metabolism.

Janice Robertson, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-273-7758

Our goal is to understand how and why membrane proteins fold, form stable complexes, and achieve conformational stability inside of the oil-filled cell membrane.

Andrea Soranno, PhD
South Building, 2nd Floor
Phone: 314-273-1632

Our main research interests are the physical principles and molecular mechanisms that determine biomolecular function.

Rui Zhang, PhD
McDonnell Sciences Building, 2nd Floor
Phone: 314-273-1663

We combine single-molecule fluorescence spectroscopy and concepts from polymer physics to investigate intrinsically disordered proteins. We also develop innovative methods to study macromolecular conformations and dynamics within cells and in membraneless organelles.