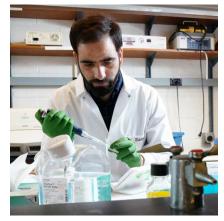
### DEPARTMENT OF

# BIOCHEMISTRY









## **Research Overview**

The Department of Biochemistry is committed to basic research and training undergraduate and graduate students for careers in biochemistry, molecular biology, medicine, health sciences, and other science-related careers. Our faculty, graduate students, and staff are located in the Biochemistry Building with additional offices and laboratories in the Hansen Life Science Research Building, Whistler Agricultural Research Building and Hockmeyer Hall of Structural Biology.

The research programs of the department span fundamental plant and biomedical biochemistry.

## **Research Areas**

- METABOLIC AND NATURAL PRODUCT BIOCHEMISTRY
- OMICS: GENOMICS, PROTEOMICS AND METABOLOMICS
- CANCER BIOCHEMISTRY
- EPIGENETICS AND GENE EXPRESSION
- STRUCTURE, DYNAMICS AND FUNCTION OF BIOLOGICAL MACROMOLECULES
- BIOINFORMATICS AND COMPUTATIONAL GENOMICS

## **Affiliated Units**

- PURDUE CENTER FOR CANCER RESEARCH
- INSTITUTE OF DRUG DISCOVERY
- CENTER FOR PLANT BIOLOGY
- INSTITUTE FOR INTEGRATIVE NEUROSCIENCE
- BINDLEY BIOSCIENCES CENTER
- INSTITUTE FOR INFLAMMATION, IMMUNOLOGY AND INFECTIOUS DISEASE

Pictured at left from top: graduate student Mackenzie Chapman, postdoc Pan Liao, Dr. Joe Ogas with students, postdoc Mohd Saleem Dar, and Dr. Mark Hall's lab group **JOE OGAS** Department head

ogas@purdue.edu | 765.494.1600

175 South University Street, West Lafayette, IN 47907 Purdue University College of Agriculture

## **Faculty and Research Areas**

Scott Briggs sdbriggs@purdue.edu Epigenetics, Antifungal Drug Resistance and Fungal Pathogenesis

Clint Chapple chapple@purdue.edu Biochemistry and molecular biology of plant secondary metabolism

Kyle Cottrell cottrellka@purdue.edu RNA editing, post-transcriptional regulation, and cancer

Brian Dilkes bdilkes@purdue.edu Plant Genetics

Natalia Dudareva dudareva@purdue.edu Plant biochemistry and molecular biology

James Forney forney@purdue.edu Regulation of differentiation in protozoa

Barbara Golden barbgolden@purdue.edu Structural basis for RNA function

Humaira Gowher hgowher@purdue.edu Regulation of DNA methylation in development and disease

Mark Hall mchall@purdue.edu Cell cycle regulation and fungal pathogenesis

Majid Kazemian kazemian@purdue.edu Research area: Studying gene regulation in viral associated cancers, autoimmune disorders, and infectious diseases

Ann Kirchmaier kirchmaier@purdue.edu Epigenetic processes that mediate heritable modifications to chromatin

Xing Liu xingliu@purdue.edu Roles and regulations of ubiquitin-proteasome dependent protein degradation

Andrew Mesecar amesecar@purdue.edu Gene-to Lead Drug Discovery

Joe Ogas ogas@purdue.edu Regulation of cell identity, signal transduction, chromatin remodeling

Sujith Puthiyaveetil spveetil@purdue.edu Genetic and molecular control of photosynthetic light utilization

W. Andy Tao watao@purdue.edu Proteomics and biological mass spectrometry Elizabeth Tran ejtran@purdue.edu RNA helicases and Post-transcriptional gene regulation

Feng Wang Molecular mechanisms of RNA-mediated gene silencing

Vikki Weake vweake@purdue.edu Chromatin modifying complexes in Drosophila development as a model for neurodegenerative disease and cancer

Jen Wisecaver jwisecav@purdue.edu The evolution of eukaryotic chemodiversity using genomics and phylogenetics

#### CLINICAL TEACHING FACULTY

Ben Carter Clinical Assistant Professor bccarter@purdue.edu

Orla Hart ohart@purdue.edu Clinical Associate Professor

#### **RESEARCH FACULTY**

Hana Hall

hallh@purdue.edu

Research Assistant Professor Molecular mechanisms of aging and neurodegenerative disease, with focus on gene expression regulation, R-loop biology, and RNA epigenetics.

### JOINT/COURTESY APPOINTMENT FACULTY

Seema Mattoo smattoo@purdue.edu (Biochemistry, Signal Transduction, and Microbiology) Investigation of Fic domain containing proteins in Cellular Signaling. Post-translational modification of proteins is a common theme in signal transduction.

John Morgan jamorgan@purdue.edu Metabolic engineering of photosynthetic microbes and mathematical modeling of metabolism and transport of plant volatiles

Pete Pascuzzi ppascuzz@purdue.edu Bioinformatics; research data management; chromatin organization; DNA replication



Agricultural Research and Graduate Education ag.purdue.edu/biochem ag.purdue.edu/arge