

## 2022 Deans' Summer Research Fellows

**Saba Ali ('22)**

*Elucidating the Antihyperintensive Pathway of A20*

Mentor: [Steven Crowley](#)

**Alexandra Bennion ('23)**

*Molecular Profiling of Drug Resistant Model of Inflammatory Breast Cancer*

Mentor: [Gayathri Devi](#)

**Katherine Burkman ('23)**

*Optimization of a Dual Luciferase Experimental System to Probe Bone Marrow Stroma-Derived Drug Resistance in Acute Myeloid Leukemia*

Mentor: [Kris Wood](#)

**Julia Caci ('24)**

*Investigating MATR3-dependent alternative splicing as a vulnerability in lung cancer brain metastasis*

Mentor: [Kris Wood](#)

**Pranav Charvu ('23)**

*Measuring the Expansion Rate of the Universe With a Two-Step Distance Ladder*

Mentor: [Daniel Scolnic](#)

**Emily Gershowitz ('23)**

*Investigating the role for microglia in synaptic refinement of the nucleus accumbens*

Mentor: [Staci Bilbo](#)

**Maya Ghanem ('23)**

*The Intersection between Islamic and Queer Environmental Ethics: Connections to US Queer Muslim Communities*

Mentor: [Erika Weinthal](#)

**Rachita Gowdu ('22)**

*Exploring the impacts of the gut microbiome and surrounding mucus layer on toxicant susceptibility in *C. elegans**

Mentor: [Joel Meyer](#)

**Chloe Hicks ('23)**

*Proximity Labeling of the Atypical Chemokine Receptor 3 in  $\beta$ -Arrestin Knockout Cells to Study Non-Canonical G Protein-Coupled Receptor Signaling*

Mentor: [Sudarshan Rajagopal](#)

**Ruitian Hu ('23)**

*Characterizing Lys63-Polyubiquitination and the PfUBC13 interactome in the malaria parasite *P. falciparum**

Mentor: [Emily Derbyshire](#)

**Lucas Humayun ('22)**

*Demonstrating multigenic control with dCas9 in T cells to improve immune resistance at cancer relevant sites*

Mentor: [Charles Gersbach](#)

**Ninh Dao An Le ('25)**

*The role of ATP1A3 gene in alternating hemiplegia of childhood and sudden cardiac death*

Mentor: [Andrew Landstrom](#)

**Lily Levin ('23)**

*The Immigration of Lillian Fleishman*

Mentor: [Dominika Baran](#)

**Megan Liu ('23)**

*Effect of Genetic Variation on the Temperature Performance of the protist *Tetrahymena thermophila**

Mentor: [Jean Gibert](#)

**Ashley Lo ('23)**

*Improving Electrotransfection Through Treatment with Sucrose and HDAC Inhibitors*

Mentor: [Fan Yuan](#)

**Taylor Nguyen ('24)**

*MYC-hypertranscriptional activity in G3/G4 medulloblastoma*

Mentor: [Scott Floyd](#)

**Preston Nibley ('25)**

*Disruption of metal ion regulatory pathways in *C. neoformans* potentiates existing antifungals*

Mentor: [Katherine Franz](#)

**Mihir Patel ('23)**

*Genetic Regulation of STIM1 Gene in Human and Mice Muscle*

Mentor: [Paul Rosenberg](#)

**Aaron Petty ('23)**

*Identification of Copper Binding in the *E. Coli* Proteome Using Histidine H/D Exchange*

Mentor: [Michael Fitzgerald](#)

**Zach Pracher ('24)**

*Understanding How Smad6/7 Differentiates Epithelial-Mesenchymal Transitions During Development in *L. variegatus**

Mentor: [David McClay](#)

**Grace Qi ('23)**

*Circadian rhythm disruptions and altered metabolic pathways in Alzheimer's disease*

Mentor: [Carol Colton](#)

**Rashad Rahman ('24)**

*CAV1 and Mechanotransduction in Trabecular Meshwork Cells*

Mentor: [Dan Stamer](#)

**Emily Sandberg ('24)**

*Encouraging suspensory feeding behavior in captive ruffed lemurs through environmental enrichment*

Mentor: [Anne Yoder](#)

**Michael Sheyner ('24)**

*Olfactory receptor response to fatty acids and related molecules with or without CD36 coexpression in heterologous cells*

Mentor: [Hiroaki Matsunami](#)

**Chen Shi ('23)**

*Who Drew This: Algorithmic Analysis Sheds Light on Attributing Art Works of the Fifteenth Century*

Mentor: [Shira Faigenbaum](#)

**Megan Stone ('24)**

*Cell-type Specific Pharmacological Manipulation of Interneurons in Visual Cortex Using Drugs Acutely Restricted by Thethering (DART)*

Mentor: [Lindsey Glickfield](#)

**Dennis Tang ('24)**

*A Model Theoretic-Approach to Natural Language Inference*

Mentor: [Sam Wiseman](#)

**Rachel Washart ('24)**

*Caspases 3 and 7 Suppress mRNA-Dependent MAVS Activation During Apoptosis*

Mentor: [Kris Wood](#)

**Haipei Yao ('23)**

*A high throughput minibrain production platform for childhood brain tumor drug testing*

Mentor: [Yiping He](#)

**Jeffrey Zhang ('23)**

*Investigating the Mechanism by which Chymase activates TRVP1+ Sensory Neurons in Anaphylaxis*

Mentor: [Soman Abraham](#)

**Jesse Zhang ('23)**

*Modern Generalization Theory of Neural Networks Using Topological Functionals*

Mentor: [Alexander Wagner](#)

**Lisa Zhao ('23)**

*Diminishing disaster: Denial rhetoric in Sutherland's 1832 cholera outbreak*

Mentor: [Evan Hepler-Smith](#)