



# SCHOOL OF MOLECULAR & CELLULAR BIOLOGY

## 2024 Graduate Research Retreat

8 a.m. - 5 p.m. | Friday, March 29, 2024 | I Hotel, Champaign



Welcome to 2024 School of MCB Graduate Research Retreat. I am very grateful we have this unique opportunity for graduate students, research scientists, and faculty across the school to connect with each other on a common platform. My thanks to Dr. Lori Raetzman, Shawna Smith, and the many graduate students who have organized this event. What I love about the people who make up the University of Illinois and the School of MCB community is our collaborative and interdisciplinary spirit. I hope you feel a sense of pride and excitement as you share your research finding with one another, as you celebrate and learn about recent advancements, and reflect on challenges and new research questions waiting to be answered. Here's to making new connections and collaborating on impactful discoveries!

**Milan Bagchi**

Deborah Paul Professor of Molecular & Cellular Biology  
Director, School of Molecular & Cellular Biology



Scan QR code for Abstract List



# Program

8:00-8:45a

**Check-in/Breakfast** Heritage Hall Lobby/Heritage Hall  
*\*Please contact catering provider with allergen concerns.*

8:45-9:00a

**Welcoming Remarks by School Director** Heritage Hall

9:00-10:15a

**Oral Presentations–Session I** Heritage Hall

**Kerem Catalbas** – Neuroscience

Faculty Mentor: Dr. Patrick Sweeney

*Hypothalamic Agrp Neurons Regulate Hyperphagia During Lactation*

**Yanheng Chen** – Biochemistry

Faculty Mentor: Dr. Lin-Feng Chen

*H. pylori Upregulates PD-L1 Expression for Immune Evasion via mTOR Ubiquitination and Activation*

**You Jin Song** – Cell & Developmental Biology

Faculty Mentor: Dr. Kannanganattu V. Prasanth

*Nuclear lncRNA Regulates Hypoxia-responsive Splicing by Modulating RNA-protein Interaction in Nuclear Speckles*

**Mireille Farjo** – Microbiology

Faculty Mentor: Dr. Christopher B. Brooke

*Genetic and Spatial Properties of Superinfection Exclusion by Influenza Viruses*

**Xiangning Song** – Molecular & Integrative Physiology

Faculty Mentor: Dr. Milan Bagchi

*Trophoblast Cells Secrete Extracellular Vesicles to Communicate with Maternal Cells During Placenta Development*

10:15-10:30a

**Break**

10:30-11:30a

**Spotlight Faculty Talks** Heritage Hall

**Dr. Boxuan Zhao** - Assistant Professor of Cell & Developmental Biology

*Exploring the Neuroverse via a Multiomic Toolbox*

**Dr. Chu-Young Kim** - Professor of Biochemistry

*How Bacteria Synthesize Polyketide Antibiotics and How They Detect DNA Damage*

**Dr. Nkrumah Grant** - Assistant Professor of Microbiology

*Thyme on My Hand: High-Throughput Approaches for Deconstructing Genetic Interactions in Cholera Eradication*

**Dr. Benjamin Auerbach** - Assistant Professor of Molecular & Integrative Physiology

*Auditory Perception, Plasticity, and Pathophysiology*

# Program

**11:30-12:30p** **Poster Presentations–Session I** Heritage Hall Lobby

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**12:30-1:30p** **Lunch** Heritage Hall

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**1:30-2:00p** **Guest Speaker Presentation** Heritage Hall

**Dr. Derek Attig**; Assistant Dean for Career & Professional Development, The Graduate College, University of Illinois  
*Pathways to Career Success in Science and Beyond*

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**2:00-3:15p** **Oral Presentations–Session II** Heritage Hall

**Grace Lyu** – Neuroscience

Faculty Mentor: Dr. Uwe Rudolph

*The GABA<sub>A</sub> Receptor  $\alpha$ 5-selective Positive Allosteric Modulator, MP-III-022, Attenuates Postoperative Cognitive Impairments in Aged Mice via Distinct Mechanisms*

**Anish Bose** – Cell & Developmental Biology

Faculty Mentor: Dr. Rachel Smith-Bolton

*The Pioneer Transcription Factor Zelda is Crucial for Tissue Patterning and Morphology in the Regenerating Drosophila Wing Imaginal Disc*

**Junyao Zhu** – Biochemistry

Faculty Mentor: Dr. David J. Shapiro

*A Novel Pathway Controlling Anticancer Drug Induced Immunogenic Cell Death*

**Megan Ringling** – Microbiology

Faculty Mentor: Dr. Steven R. Blanke

*Helicobacter pylori vacA's Binding Region and Its Potential as a Clinical Gastric Disease Risk Marker*

**Behzad Mehrafrooz** – Biophysics and Quantitative Biology

Faculty Mentor: Dr. Aleksei Aksimentiev

*Single-molecule Protein Sequencing using a Digestion-free Nanopore Approach*

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**3:15-4:15p** **Poster Presentations–Session II** Heritage Hall Lobby

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**4:15-4:45p** **Keynote Speaker Presentation** Heritage Hall

**Dr. Paul Selvin**; Professor of Biological Physics, University of Illinois

*Does (Bio)Physics have anything to say about Alzheimer's Disease?*

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**4:45-5:00p** **Closing Remarks/Awards** Heritage Hall

# Meet

## Our Speakers

### Guest Speaker: Derek Attig



Dr. Derek Attig plays a significant role at UIUC, particularly in the Graduate College where they have been involved in overseeing programming and advising services for graduate students and postdoctoral scholars. Their contributions are aimed at enhancing career and professional development for a large community of over 18,000 graduate students and 600 postdoctoral scholars. Dr. Attig's work has been recognized with honors such as the Chancellor's Academic Professional Excellence Award, highlighting their dedication and impact in the academic and professional development of students and scholars at UIUC. Additionally, their involvement extends to initiatives like Humanities Without Walls, indicating a broad interest in fostering interdisciplinary collaboration and career diversity.

### Keynote Speaker: Paul Selvin



Professor Paul Selvin is a distinguished member of the biophysics and physics departments at the University of Illinois Urbana-Champaign, holding the position of the John Bardeen Faculty Scholar. Selvin's postdoctoral work involved developing a new type of fluorescence resonance energy transfer (FRET) based on lanthanides, termed luminescence resonance energy transfer (LRET). This technique has been instrumental in discovering the voltage response of potassium ion channels, a crucial aspect of nerve conduction. Additionally, his pioneering work in single-molecule fluorescence led to the first measurement of FRET between a single donor and acceptor, significantly advancing our understanding of molecular dynamics. Since joining UIUC in 1997, Selvin's research has primarily focused on molecular motors, such as kinesin and dynein, which play a pivotal role in cellular processes like division. His groundbreaking work has utilized techniques like Fluorescence Imaging with One-Nanometer Accuracy (FIONA) to elucidate the movement mechanisms of these motors, contributing to a deeper understanding of cellular machinery. Selvin's work has not only been recognized within the academic community, with numerous publications in prestigious journals, but he has also actively engaged in service roles, contributing to national and international scientific committees and editorial boards, demonstrating a commitment to advancing both the field of biophysics and the broader scientific community.

## Boxuan Zhao - CELL & DEVELOPMENTAL BIOLOGY



Dr. Boxuan Zhao is an assistant professor in the Department of Cell & Developmental Biology. He transitioned to UIUC in November 2023 after completing his postdoctoral research at Stanford University. Professor Zhao's research focuses on the interface between RNA biology, chemical biology, technology development, and neuroscience, aiming to develop and apply cutting-edge tools for studying brain structure and functions.

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## Chu-Young Kim - BIOCHEMISTRY



Dr. Chu-Young Kim is a professor in the Department of Biochemistry, where he focuses on the research of bioactive molecules produced by soil bacteria, specifically polyketides, and their applications in antibacterial and anticancer properties. He was intrigued by the ability of bacteria to produce complex molecules swiftly, a process that usually takes chemists much longer in the lab. His laboratory also delves into

a novel DNA repair pathway discovered during their polyketide research, expanding the lab's focus to bacterial DNA repair mechanisms.

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## Nkrumah Grant - MICROBIOLOGY



Dr. Nkrumah Grant is an assistant professor in the Department of Microbiology. He joined UIUC in November 2023 after postdoctoral positions at Michigan State University and the University of Idaho. His research has been interdisciplinary, integrating evolutionary theory, microbiology, molecular genetics, and genomics to explore the ecology and evolution of pathogenic bacteria, specifically *Vibrio cholerae*. This focus is motivated by a desire to address global health

inequities, particularly in communities with limited access to clean water.

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## Benjamin Auerbach - MOLECULAR & INTEGRATIVE PHYSIOLOGY



Dr. Benjamin D. Auerbach is an assistant professor in the Department of Molecular & Integrative Physiology. He is also a full-time member of the Beckman Institute. His research focuses on the neural mechanisms underlying sensory processing and plasticity, with a particular interest in how experience-dependent plasticity influences perception and behavior. This includes studying the biological mechanisms and behavioral consequences of experience-dependent modifications in the brain, using the rodent auditory system as a model.

# Poster

## Sessions 1 & 2

### SESSION I

- 1 | **Cade Duckworth** CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY  
*Homology Modeling and Molecular Dynamics Investigation of PIP2 and CaM Binding in Kv7 Voltage-gated Potassium Channels*
- 2 | **Shuting Liu** CELL & DEVELOPMENTAL BIOLOGY  
*Developing New Approaches to Probe Chromosome Compaction*
- 3 | **Shrunali Amin** CELL & DEVELOPMENTAL BIOLOGY  
*Contribution of Microtubules in Regulating Membrane Reservoir Dynamics During Embryonic Morphogenesis*
- 4 | **Yinka Ojo** MOLECULAR & INTEGRATIVE PHYSIOLOGY  
*Phthalate- induced Pituitary Inflammation Leads to Early Female Reproductive Aging*
- 5 | **Tongyu Liu** MICROBIOLOGY  
*Variation in Influenza Virus Neuraminidase Activity Influences the Evolutionary Trajectory of Hemagglutinin*
- 6 | **Po-Chao Wen** BIOCHEMISTRY  
*Membrane Interaction and Binding of the Displaced VDAC1 N-Terminus*
- 7 | **Yenny Yook** MOLECULAR & INTEGRATIVE PHYSIOLOGY  
*Hyperfunction of Post-synaptic Density Protein 95 Promotes Seizure Response in Early-Stage A $\beta$  Pathology*
- 8 | **Hunter Cobbley** MICROBIOLOGY  
*Characterization of the Evolutionary and Ecological Impact of Bacteriophages on *Rhizobium leguminosarum**
- 9 | **Hayden Noblet** NEUROSCIENCE  
*Striatal-enriched Protein Tyrosine Phosphatase Regulates Seizure Susceptibility, Hippocampal Excitability, and Hyperpolarization-activated Cyclic Nucleotide-gated Channels*
- 10 | **Tianle Chen** CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY  
*Atomic-resolved Description of Anion Binding and the Alternating Access Mechanism of Anion Exchanger 1 (Band 3)*
- 11 | **Nicole Godellas** MOLECULAR & INTEGRATIVE PHYSIOLOGY  
*Domain-domain Proximity is a Crucial Determinant of Binding-gating Coupling in Cys-loop Receptors*
- 12 | **Anuradha Sharma** BIOCHEMISTRY  
*Host-relevant Micromolar H<sub>2</sub>O<sub>2</sub> Doses Stress *Pseudomonas aeruginosa**
- 13 | **Hossein Omidi Ardali** BIOCHEMISTRY  
*Cholesterol-Dependent Binding of the FERM Domain of Tyrosine-protein Phosphatase Non-receptor Type 3*

- 14 | **Kenneth Samuel** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Function of Astrocytes in the Medial Amygdala Neural Circuits and Social Behavior*
- 15 | **Saika Hossain** **MICROBIOLOGY**  
*Detecting Oxidative Stress by Leveraging Serine Deaminase in Escherichia coli*
- 16 | **Sandeep Kumar** **CELL & DEVELOPMENTAL BIOLOGY**  
*Resistance to FOXM1 Inhibitors in Breast Cancer is Accompanied by Inhibition of Ferroptosis and Apoptotic Cell Death*
- 17 | **Yu Zhang** **MICROBIOLOGY**  
*Epigenetic Regulation of Neural Development in the Drosophila Visual System*
- 18 | **Sahil Malpotra** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*The Targeting Mechanism and Function of Postsynaptic Kv7/KCNQ Channels at Excitatory Synapse*
- 19 | **Yumi Iwadate** **MICROBIOLOGY**  
*Excess Cation Stress and Tolerance Mechanisms in Salmonella*
- 20 | **Ki Lim** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Intracerebral Nanoparticle Transport Facilitated by Alzheimer Pathology and Age*
- 21 | **Jessica Hertig** **MICROBIOLOGY**  
*A Role for UvrABC Excinuclease During Oxidative Stress*
- 22 | **Yupeng Li** **BIOCHEMISTRY**  
*The Carboxy-terminal Domain of OhyA Mediates Membrane Association and Fatty Acid Extraction*
- 23 | **Fredy Kurniawan** **CELL & DEVELOPMENTAL BIOLOGY**  
*BEND3 Safeguards Pluripotency by Repressing Differentiation-associated Genes*
- 24 | **Tejas Mahadevan** **CELL & DEVELOPMENTAL BIOLOGY**  
*Localization of mRNA Encoding the Actin-binding Protein Sry-a Promotes Nuclear Repositioning During Drosophila Morphogenesis*
- 25 | **Nicholas Handy** **MICROBIOLOGY**  
*Determinants of Cytosolic Delivery by PMT-N Containing Toxins*
- 26 | **Yiran Zheng** **BIOCHEMISTRY**  
*Macrophage Brd4 Regulates Salmonella typhimurium colonization via activation of ILC3s*
- 27 | **Katrine Dailey** **BIOCHEMISTRY**  
*Development of a Broadly Protective Antibody Through Tite-Seq*
- 28 | **Dazhen Liu** **CELL & DEVELOPMENTAL BIOLOGY**  
*DNA damage-induced, S-phase Specific Phosphorylation of Orc6 is Critical for the Maintenance of genome Stability*
- 29 | **Zach Davis** **MICROBIOLOGY**  
*Interferon Dependent Spatial Modulation of the Innate Immune Response in Influenza A Infection*
- 30 | **Aaron Chan** **CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY**  
*Exploring Cross-Family Activation of Growth Factor Receptors with Molecular Dynamics Simulations*
- 31 | **Steven Eichinger** **MICROBIOLOGY**  
*Identifying Novel Functional RNA Elements Within the Influenza A Virus ORFs*

- 32 | Md Fulbabu Shaikh** CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY  
*Small Molecules, Big Impact: A Multiscale Modeling on Protein Kinase Inhibitors for Enhanced Therapeutic Development*
- 33 | Felicity Hsu** CELL & DEVELOPMENTAL BIOLOGY  
*The Role of Myc in Drosophila Wing Imaginal Disc Regeneration*
- 34 | Dajin Cho** NEUROSCIENCE  
*Role of Paraventricular Thalamic Melanocortin 3 Receptor in Linking Energy State with Food Seeking Behavior*
- 35 | Iris Lyu** BIOCHEMISTRY  
*Chimeric Antibodies Consisting of Human and Teleost Motifs Form JC-free Polymers*
- 36 | Eric Shinn** CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY  
*Permeation of CO<sub>2</sub> through AQP5 Enabled Through the Central Pore*
- 37 | Nick Baker** BIOCHEMISTRY  
*Temporally Controlled Expression of a Splicing Factor in Single Cells Coordinates the Metabolic and Proliferative Activities of Regenerating Livers*
- 38 | Shobhna** THEORETICAL & COMPUTATIONAL BIOPHYSICS  
*Insights into the Role of MTS in mRNA Degradation*
- 39 | Neha Chetlangia** CELL & DEVELOPMENTAL BIOLOGY  
*Orca/Irwd1 Organizes 3D Genome Architecture Through the Polycomb Repressive Complex*
- 40 | Ali Rasouli** CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY  
*Locked in Place: Deciphering the Conformational Impairment Caused by Tumor-acquired Somatic Mutation Q393K in ABCG2*
- 41 | Gang Xiao** MOLECULAR & INTEGRATIVE PHYSIOLOGY  
*Behavioral Task Modulates Neural Activity in the Dorsal Inferior Colliculus Neurons of Mice*
- 42 | Gracious Donkor** MICROBIOLOGY  
*Investigating Synthetic Lethal Gene Interactions in Vibrio cholerae Cell Wall Metabolism*
- 43 | Anubhav Basu** MICROBIOLOGY  
*Raffinose Family Oligosaccharide Utilization by Bacteroides*
- 44 | Kritika Mehta** BIOCHEMISTRY  
*Arc Utilizes the Multivesicular Body Pathway for Capsid Exocytosis Mediated by PI3P*

## SESSION II

- 1 | Snigdha Mathure** CELL & DEVELOPMENTAL BIOLOGY  
*Investigating the Role of Btk29A in Drosophila Wing Imaginal Disc Regeneration*
- 2 | Steven Hobbs** MOLECULAR & INTEGRATIVE PHYSIOLOGY  
*Elucidating the Role of the IQGAP1-YAP Axis in ECM Stiffness-mediated Hepatocellular Carcinoma Progression*
- 3 | Janhavi Borkar** BIOCHEMISTRY  
*Mechanism of ATP-dependent Phosphonate-ester Formation*
- 4 | Ishita Purwar** BIOCHEMISTRY  
*TGF- $\beta$  Signaling Mediates Downregulation of ESRP2 in Alcoholic Liver Disease*



- 5 | Gisela Cymes** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Asymmetric Role of the Different Subunits of Heteromeric Cys-loop Receptors in Transducing the Ligand-binding Signal into the Opening of a Transmembrane Pore*
- 6 | Andrew Riley** **CELL & DEVELOPMENTAL BIOLOGY**  
*Modulation of Dynamic Fluctuations by Actin Regulatory Proteins*
- 7 | Alex Shuppara** **BIOCHEMISTRY**  
*Fluid Flow Overcomes Antimicrobial Resistance by Boosting Delivery*
- 8 | Manasi Inamdar** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Identifying Convergent Pathophysiological Mechanisms Across Development in Genetically Distinct Rat Models of Autism*
- 9 | Jessica Derham** **BIOCHEMISTRY**  
*Characterization of the Role of Epithelial Splicing Regulatory Protein 2 in Regeneration Induced by Acute Liver Injury*
- 10 | Alexander Mortenson** **BIOCHEMISTRY**  
*Binding Mode of Protein Kinase C C1 Domain to DAG and Plasma Membrane*
- 11 | Molly Crowder** **MICROBIOLOGY**  
*Microbial-mediated Genotoxicity Alters Lineage Specification in the Intestine*
- 12 | Hellan Lee** **MICROBIOLOGY**  
*Investigating the Roles of RNA Binding Proteins in Bacteroides thetaiotaomicron*
- 13 | Rajendra K C** **CELL & DEVELOPMENTAL BIOLOGY**  
*Evidence of RNA Polymerase III Recruitment and Transcription at Protein-coding Gene Promoters*
- 14 | Suvanthee Gunasekera** **MICROBIOLOGY**  
*Evidence for Differences in Rates of Reassortment in Rotavirus A Segment pairs*
- 15 | Dayan Viera** **BIOCHEMISTRY**  
*Unraveling the Enigmatic Bisepoxide Formation: Insights from Lsd18 in Lasalocid A Biosynthesis Pathway*
- 16 | Neethu Babu** **CELL & DEVELOPMENTAL BIOLOGY**  
*Role of HSP90 in Aging*
- 17 | 'Fola Adesanya** **BIOCHEMISTRY**  
*DM1 CUG Repeat Expression Alters Cardiac Mitochondrial Respiration and Dynamics*
- 18 | Elizabeth Thayer** **MICROBIOLOGY**  
*Pre-infection Cell State Dictates the Potential to Initiate the Innate Antiviral Response*
- 19 | Diptatanu Das** **BIOCHEMISTRY**  
*Aberrant Splicing Functionally Alters Liver in Alcohol-associated Liver disease, Explains Coagulopathy*
- 20 | Jacob Beal** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Transcription Factor Runx1 Controls the Uterine Expression and Secretion of Insulin-like Growth Factor 2 Which Facilitates Maternal Angiogenesis and Trophoblast Differentiation During Early Pregnancy*
- 21 | Alice Troitskaia** **CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY**  
*Differential Damage Detection by XPD Helicase*

- 22 | Hina Zhou** **BIOCHEMISTRY**  
*Glutathione Transferases LanCL1 and 2 Shed Light on The Secret to Longevity and Obesity*
- 23 | David Gauthier** **NEUROSCIENCE**  
*Characterizing Isolation-induced Vocalizations Across Development in a Rat Model of Autism*
- 24 | Matt Sinclair** **BIOCHEMISTRY**  
*In Silico Characterization of a Novel Gram-negative Targeting Antibiotic*
- 25 | Jilai Cui** **NEUROSCIENCE**  
*Analogies for Central Nervous System Computation in Pleurobranchaea, Octopus and Vertebrates*
- 26 | Rebecca Schneider** **BIOCHEMISTRY**  
*Structural Characterization of Avian Immunoglobulin A*
- 27 | Miles Norsworthy** **CELL & DEVELOPMENTAL BIOLOGY**  
*Redox Environments Alter Rat Hippocampal Neuron Response to Semaphorin 3a*
- 28 | Owen Ouyang** **BIOCHEMISTRY**  
*oPool+ Display: A Rapid and Cost-effective In-vitro Antibody Screening Platform*
- 29 | Peter Thompson** **CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY**  
*Structure-Driven Development of a Rare Earth Artificial Metalloenzyme*
- 30 | Joel Rivera-Cardona** **MICROBIOLOGY**  
*Using Single-cell Approaches to Characterize the Evolution of Influenza's Innate Immune Antagonism*
- 31 | Ashkan Fakharzadeh Ghaan** **BIOCHEMISTRY**  
*Transition Rate Estimation From Along-the-path, Unbiased, Molecular Dynamics Simulations of a Major Facilitator Superfamily Transporter*
- 32 | Carlos Cuellar** **CENTER FOR BIOPHYSICS & QUANTITATIVE BIOLOGY**  
*TMEM97 Ligand-Binding Effects on Dimerization through Molecular Dynamics*
- 33 | Anjana Asokakumar** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Elucidating the Role of Constitutive Androstane Receptors in Maintaining the Hepatocyte Ploidy*
- 34 | Madhura Duttagupta** **CELL & DEVELOPMENTAL BIOLOGY**  
*Intrinsic Barbed-end Fluctuations in Steady State Actin Filaments*
- 35 | Yiquan Wang** **BIOCHEMISTRY**  
*An Explainable Language Model for Antibody Specificity Prediction*
- 36 | Ingrid Possa Paranhos** **MOLECULAR & INTEGRATIVE PHYSIOLOGY**  
*Sexually Dimorphic Control of Energy Rheostasis via DMH MC3R Signaling*
- 37 | Hailun Zhu** **CELL & DEVELOPMENTAL BIOLOGY**  
*Understanding the Temporal Patterning Process of the Drosophila medulla by Identification of a Complete Cascade of Temporal Transcription Factors and their Cis-Regulatory Elements*
- 38 | Teak-Jung Oh** **BIOCHEMISTRY**  
*Optogenetic Activation of RIPK3 Reveals a Thresholding Mechanism in Intracellular Necroptosis*
- 39 | Yu-En Huang** **BIOCHEMISTRY**  
*Modulating Protein Degradation for Synthetic Biology Application*

40 | **Subhashis Natua** **BIOCHEMISTRY**

*Temporal Control of Dynamic PABPN1 Expression Governs Cardiac Maturation and Adult Cardiac Function*

41 | **Ekaterina Gribkova** **NEUROSCIENCE**

*Modeling Octopus Arm Coordination with Recurrent Inhibition and Serial CPG Circuitry*

42 | **Yuwei Pan** **BIOCHEMISTRY**

*Discovery and Biosynthesis of Oxazolismycins – the Oxazole-Containing Angiotensin-Converting Enzyme Inhibitors*

43 | **Moeen Meigooni** **BIOCHEMISTRY**

*Computational Modeling of Single-Molecule Conductance in Designer Peptides*


## 2024 School of MCB Annual Graduate Retreat Committee Members



Timothy Tan | Gabe McKenna | Rujuta Pendharkar | Shawna Smith | Saika Hossain  
Quang Nguyen | Lori Raetzman | Aatiqa Nawaz | Shrunali Amin | Rayeed Ihsan  
Courtney Rose (not pictured)

# Let's Connect


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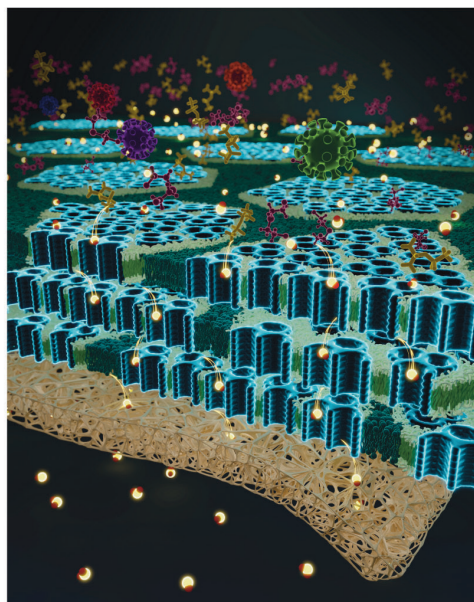
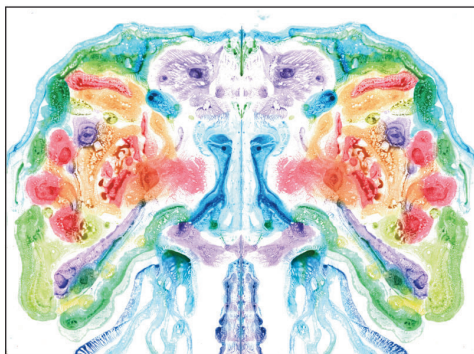
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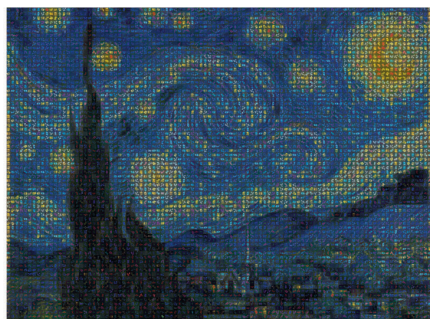




*Heat Map of Consciousness*  
Credit: Kerem Catalbas

*We Search*  
Credit: Laurel Hart

*Protein-based Membranes*  
Credit: Behzad Mehrafrooz



*Journey of a Bacteriophage*  
Credit: Lindsey Grady

*The Power of Numbers*  
Credit: Gabrielle Nathan

*Super Fly*  
Credit: Snigdha Mathure

*Protein Starry Night*  
Credit: Yiquan Wang