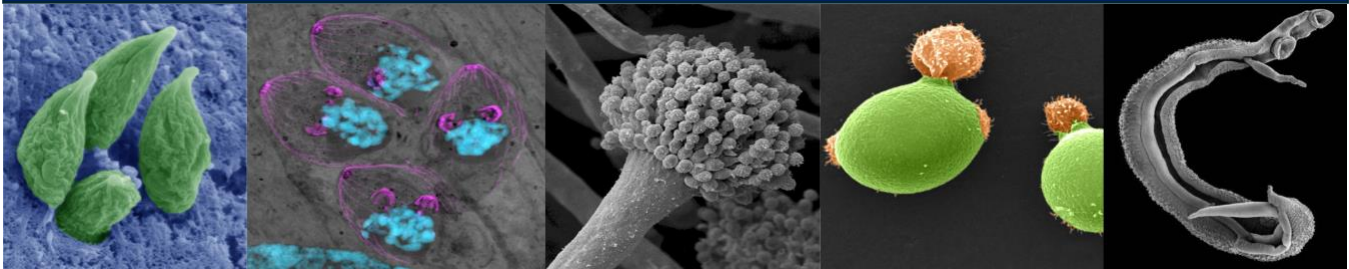


# MIDWEST NEGLECTED INFECTIOUS DISEASES MEETING



Case Western Reserve University

August 22<sup>nd</sup> -23<sup>rd</sup>, 2025



## PROGRAM SCHEDULE

### **Friday, August 22, 2025**

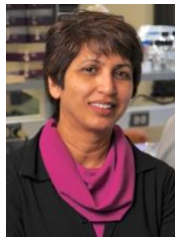
#### **Activity**

10:30-11:30 am	Registration and Poster set-up
11:30-12:45 pm	Lunch Buffet
12:35- 12:50 pm	Opening Remarks and Welcome Emmitt R Jolly

### **Keynote and Plenary Session I**

**Moderator: Kristie Goughenour**

1:00-1:50pm



#### **Parasitology Keynote Speaker: Kasturi Haldar**

Conservation of Apicomplexan Mechanisms  
Suggest a New Model for Malarial Resistance to  
Artemisinin.

Professor of Biological Sciences

Rev. Julius A. Nieuwland C.S.C. Professor of Biological Sciences

Professor of Anatomy and Cell biology at Indiana University

University of Notre Dame

1:50-2:00pm Questions and Discussion

2:00-2:15 pm	Noelia Lander	cAMP compartments modulate signal specificity in <i>Trypanosoma cruzi</i>
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2:15-2:30 am	Robbi Ross	Using an immortalized human microglia cell line to study the fungal-host interactions of the neurotropic yeast <i>Cryptococcus neoformans</i>
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2:30-2:45 pm	Yifan Wang	Host-Specific Determinants of <i>Toxoplasma gondii</i> Fitness
2:45-3:00 pm	Dale Lingo	Functional characterization of <i>Histoplasma capsulatum</i> chitinases
3:00-3:20 pm	Coffee break	

### Plenary Session II Moderator: Chris King

3:35-4:00 pm	Krithika Rajaram	Multiple carboxylic acid transporters support mitochondrial metabolism in <i>Plasmodium falciparum</i>
4:00-4:15 pm	Jala Bogard	Functional and Structural Characterization of <i>Cryptosporidium parvum</i> Thioredoxin Reductase
4:15-4:30 pm	Connor O'Shea	A novel <i>Plasmodium</i> ER protein governs effector protein export into the host erythrocyte
4:30-4:45 pm	Kristie Goughenour	Trehalose phosphate synthase 1 (tps1) in <i>Cryptococcus neoformans</i> aids in fungal defense from resident pulmonary factors such as collectins
4:45-5:00 am	Bin He	Evolution of Acquired Stress Resistance in a Yeast Pathogen
5:00-5:20 pm	Jürgen Bosch	Monoclonal antibodies targeting an Achilles heel of <i>P. vivax</i> - The potential for a novel prevention and treatment option
5:30-6:45pm	Dinner	(Steering Committee Meeting over Dinner)

### Session III Poster Session

6:45- 8:15 pm	Poster Session (Millis Hall 1 <sup>st</sup> Floor)
8:30-9:45pm	Jolly Scholar (Social at the Jolly Scholar- Thwing Hall) 11111 Euclid Avenue, Cleveland, OH 44106

**Saturday August 23, 2025**

8:00-8:55 Breakfast and Announcements

**Keynote and Plenary Session IV Moderator: Kasturi Halder**

9:00 – 9:50 am



**Mycology Keynote Speaker: Mahmoud Ghannoum**

*Candida auris*: A Global Emerging Multidrug Resistant Pathogen

Professor and Director of the Integrated Microbiome Core and Center for Medical Mycology and University Hospitals Cleveland Medical Center  
Infectious Disease Society of America Fellow  
American Academy of Microbiology Fellow

9:50-10:00 am

Q&A, Discussion

10:00-10:15 pm

Parissa Kalantari

STING agonist protects against exacerbation of schistosome egg-induced immunopathology

10:15-10:30 pm

Joseph Smith

Untangling the Wires of Differentiation Signaling of RDK1 in *Trypanosoma brucei*

10:30- 10:45 am

Michael Holmes

Selective translational activation drives *Toxoplasma* cyst formation

10:45 – 11:00 am

Coffee Break

11:00-11:05am

Announcements

Winners of the Poster presentations

**Plenary Session V Moderator: Yifan Wang**

11:05-11:20 am Daphne Boodwa-Ko

Captain Not-so-obvious: The unexpected complexities of Cap10 function in *Cryptococcus neoformans*

**Lightning Talks Begin**

## MNID 2025

11:20-11:55 am

### Lightning Talks

### Five minutes each with Q&A

Farheen Naz

CUT&Tag sequencing and RNAseq analyses reveal TbRAP1's unexpected role in regulating chromosomal internal genes

Liza Loza

Beyond the reference strain: A fresh look at molecular interactions between *Candida albicans* and the host

Jackson Rapala

Deep homology and design of proteasome chaperone proteins in *Candida auris*

Rob Striker

Spinal fluid biomarkers as tool to determine the causative role of chronic toxoplasmosis in disease

James Blauwkamp

A ubiquitin-like protein influences apicoplast protein import in malaria parasites

Josh Benoit

How drought impacts feeding, behavior, and viral transmission of mosquitoes

### Plenary Session VI

### Moderator: Emmitt Jolly

11:55-12:40 pm

Glen McGugan (NIH Program Officer, Parasite Biology, PIBP)

Mechanisms and strategies to secure research support for PIs and trainees

12:40-12:50

Closing Remarks

12:50-1:40 pm

Lunch (boxed)

1:30- 3:00 pm

Career panel for Trainees

**William (Bill) Garner, M.D./MPh.** Managing Director of EGB Ventures

**Julia Myers, Ph.D.,** Grant Writing Consultant for the Strategic

Partnerships and Research Collaborative (SPARC) at CWRU

**Nicholas Ostrout, Ph.D.,** Vice President Corporate Development and Strategy at ViroCell Biologics

**Leah Padgett, Ph.D.,** Director within the Molecular Pharmacology Unit, Eli Lilly

**Yifan Wang, Ph.D.,** Assistant Professor, Dept of Microbiology and Immunology, University of Michigan

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## **Keynote Speakers and Biographies**

**2025 MNID is proud to acknowledge exemplary Keynote speakers who are leaders in Parasitology and Mycology, and an exciting cast of stars for MNID's first Career Panel.**

### **Keynote Speakers**

#### **Kasturi Haldar, Ph.D.**

Dr. Kasturi Haldar is the Rev. Julius A. Nieuwland C.S.C. Professor of Biological Sciences at the University of Notre Dame and Professor of Anatomy and Cell Biology at the Indiana University School of Medicine. An internationally recognized biomedical scientist, she investigates molecular and evolutionary mechanisms underlying rare neurological disorders, intellectual disability, chronic pain, and neglected infectious diseases such as malaria, integrating molecular biology, computational big-data approaches, and preclinical models to advance targeted therapies. From 2008–2022, she served as the Parsons-Quinn Founding Director of Notre Dame's Boler-Parseghian Center for Rare and Neglected Diseases, building innovative public-private partnerships to accelerate drug development. She has held faculty positions at Northwestern University, Stanford University, and Rockefeller University, and was a Foreign Expert at the Peking Union Medical College in Beijing. Founding Deputy Editor and later Co-Editor-in-Chief of *PLOS Pathogens* (2006–2023), Dr. Haldar's contributions have been recognized with the Burroughs Wellcome New Investigator and New Initiatives in Malaria Awards, and election as a fellow of the American Academy of Microbiology, the American Society of Tropical Medicine and Hygiene, and the American Association for the Advancement of Science. Her work continues to shape global strategies for combating rare diseases and infectious threats.



#### **Mahmoud Ghannoum, Ph.D./MBA**

Dr. Mahmoud Ghannoum is a tenured Professor at Case Western Reserve University and University Hospitals Cleveland Medical Center, where he directs the Integrated Microbiome Core and the Center for Medical Mycology. He received his MSc in Medicinal Chemistry and PhD in Microbial Physiology from the University of Technology in Loughborough, England, and an MBA from Case Western Reserve University. A global leader in medical mycology, Dr. Ghannoum pioneered research on the human mycobiome, coining the term itself, and has advanced our understanding of fungal communities in health and disease. He has authored over 550 peer-reviewed publications and six scientific books, ranking among the top 1% of cited scientists worldwide. Dr. Ghannoum's achievements have been recognized with the Rhoda Benham Award (MMSA) and the Freedom to Discover Award (Bristol-Myers Squibb). He is a Fellow



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of the Infectious Disease Society of America, the American Academy of Microbiology, and the European Society of Clinical Microbiology and Infectious Diseases, and a past president of the Medical Mycological Society of the Americas. An entrepreneur-scientist, Dr. Ghannoum has founded several companies focused on treating biofilm infections and microbial dysbiosis, translating research breakthroughs into clinical innovations.

## **NIH Guest Speaker**

**Glen C McGugan, Ph.D.** is a Program Officer in the Parasitology and International Programs Branch (PIPB) within the Division of Microbiology and Infectious Diseases (DMID) at the National Institute of Allergy and Infectious Diseases (NIAID). He manages a diverse portfolio of research grants focused on the biology of medically important protozoan and helminth parasites, supporting basic, translational, and applied studies that advance understanding and treatment of parasitic diseases. In addition, he serves as the contracting officer's scientific and technical representative for the Schistosomiasis Resource Center, a vital resource supporting the global parasitology research community. Dr. McGugan has a strong interest in global health and workforce development. He oversees the International Research in Infectious Diseases (IRID) program, which fosters international collaborations and provides critical support for investigators conducting research in low- and middle-income countries. He is also committed to mentoring trainees and early-career researchers, providing guidance to help build the next generation of leaders in infectious disease research. He earned his B.S. from the University of South Carolina and his Ph.D. from Clemson University, followed by postdoctoral research as an IRTA fellow in the Laboratory of Parasitic Diseases at NIAID.





## **Special Guests: Career Panel for Trainees**

**William (Bill) Garner, M.D./MPH** is Managing Director of EGB Ventures, a global life science investment firm that creates and supports innovative companies developing clinical-stage pharmaceuticals for critical, unmet medical needs. He has founded and financed multiple companies now listed on the ASX, CSE, TSX, and NASDAQ, collaborating closely with talented executives and strategic partners. Dr. Garner previously worked in oncology medical affairs at Hoffmann LaRoche and as a merchant banker in New York City. He holds an MD from New York Medical College and a Master of Public Health from Harvard T.H. Chan School of Public Health and trained in anatomic pathology at Columbia-Presbyterian. He is a licensed physician in New York and a recipient of the AMA/Glaxo Wellcome Leadership Award, with research funded by the American Federation for Aging Research. An inventor on numerous patents, Dr. Garner is also the author of *Garnering Capital*, where he shares practical advice, cautionary tales, and insights to help researchers, entrepreneurs, and investors navigate the complexities of the life sciences industry and achieve success while making a positive impact.



**Julia Myers, Ph.D.** is a Grant Writing Consultant for the Strategic Partnerships and Research Collaborative (SPARC) Team at Case Western Reserve University, where she supports investigators in developing competitive and transdisciplinary grants and contracts. She holds a doctorate in Microbiology and Immunology and brings over eight years of virology research experience to her work, with a strong foundation in scientific communication and strategy. During her research career, Julia authored seven peer-reviewed publications and secured a prestigious predoctoral fellowship. As a Postdoctoral Fellow at Cleveland Clinic, she was also recognized with the Lerner Trainee Association's 2024 Member of the Year Award for her outstanding contributions to the trainee newsletter. Beyond her professional work, Julia is an enthusiastic mentor to junior scientists, guiding high school, undergraduate, and early graduate students as they navigate their research journeys. She is also passionate about scientific outreach and actively volunteers at community science events to inspire the next generation of researchers.



## MNID 2025

**Nicholas Ostrout, Ph.D.** Nicholas Ostrout, PhD, is Vice President Corporate Development and Strategy at ViroCell Biologics. With a PhD in Immunology from Case Western Reserve School of Medicine and close to 15 years of experience in global life-sciences business, Nick has built a career at the intersection of cutting-edge science and high-impact commercial strategy. Nick also has a wealth of cell and gene therapy (CGT) commercial development and corporate strategy experience. Prior to joining, he was most recently Senior Director of Strategic Development and Partnerships at Charles River Laboratories, where he was responsible for developing and executing business engagement and development strategies for the company's CGT assets, across the entire Charles River portfolio. Prior to this, Dr. Ostrout worked at Lonza as Senior Director (Global Head) of Commercial Development, within Lonza's Personalized Medicine Business Unit. There, he served as head of the transactions team, securing access to promising technologies in the area of cell therapy manufacturing and development.



Nick's scientific foundation has been the engine behind his career: with rigorous academic research informing his strategic decision-making, he is able to identify and prioritize innovations with true therapeutic potential. This science-first approach gives Nick credibility in technical discussions and when negotiating complex deals.

**Leah Padgett, Ph.D.** Padgett, Ph.D. worked as a technician for several years before joining IUSM where she got her PhD in Pharmacology studying gene regulation in Toxoplasma. From there, she



did a postdoc at a research institute (Indiana Biotech Research Insitute) where she discovered and characterized a novel monogenic rare disease, Deoxyhypusine Synthase Deficiency. After her postdoc, she joined a start-up (Quantigen) as the Director of Technology Development. At Quantigen, she founded the Research Department and led efforts to develop and deploy pathogen testing kits. Key contributions include developing a COVID nasal swab that saw nation-wide distribution and several other diagnostic tests for viral diseases, tuberculosis, and a helminth surveillance program (supported by the Gates foundation). She left Quantigen to join Eli Lilly, first as a Senior Research Advisor, and now as a Director within the Molecular

Pharmacology Unit. She has received several Lilly Innovator Awards for her ongoing work on the GLP-1 story (Eli Lilly's latest blockbuster sector). She also maintains an LLC as a scientific consultant and has mentored several junior trainees entering industry. Finally, she's an all-around great and kind person.



## MNID 2025

**Yifan Wang, D.V.M., Ph.D.** is an Assistant Professor in the Department of Microbiology and Immunology at the University of Michigan Medical School. He earned his D.V.M. from Jilin Agricultural University and completed his Ph.D. in Molecular Parasitology at Huazhong Agricultural University. Following postdoctoral training at UC Davis in Dr. Jeroen Saeij's laboratory, Dr. Wang became an Assistant Project Scientist in UC Davis's Department of Pathology, Microbiology & Immunology in 2021, before launching his independent research career at Michigan in January 2023. Dr. Wang's lab investigates the molecular and evolutionary mechanisms governing host-pathogen interactions with a focus on innate immune responses to *Toxoplasma gondii*. His multidisciplinary approach, spanning functional genomics, proteomics, bioinformatics, and biochemical analysis, aims to uncover how *Toxoplasma* effectors modulate immunity and identify strategies to enhance immune detection of the parasite, potentially improving treatments for immunocompromised patients. Dr Wang is a member of the MNID Steering committee and was a key organizer of the 2024 MNID meeting held at the University of Michigan.



### MNID STEERING COMMITTEE

Matt Anderson, University of Wisconsin  
Joshua R Beck, Iowa State University  
Tamara Doering, Washington University  
Mahmoud Ghannoum, Case Western  
Reserve University  
Kristi Goughenour, University of Michigan  
Kasturi Haldar, Notre Dame University  
Bin He, University of Iowa  
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Som Nanjappa, University of Illinois Urbana-  
Champaign  
Fernanda Novais, Ohio State Univ  
Chad Rappleye, Ohio State Univ  
Felipe Santiago-Tirado, Notre Dame  
University  
Yifan Wang, University of Michigan

### Meeting Organizers

Emmitt R Jolly, Case Western Reserve University  
Christopher King, Case Western Reserve University

Caterers: The Jolly Scholar

Many Thanks to our sponsors for their generous support!

