



DAY 1: THURSDAY JUNE 5, 2025

Johns Hopkins Bloomberg School of Public Health

All breaks are in Feinstone Hall - E2030, 2nd Floor

All talks are in Sheldon Hall - W1214, 1st Floor

8:30 - 9:15 Registration and light breakfast – Feinstone Hall (E2030)

9:20 - 9:30 Introduction to the Encounter - Sheldon Hall (W1214)

Welcome Remarks – Prof. Jane Carlton (JHMRI Director)

Chalk Talks

9:30 - 9:50 Marcelo Jacobs Lorena (JHU)
Moving bacteria that curtail malaria transmission from the lab to the field

9:50 - 10:10 Joao Pedra (UMD)
Tick-Borne Diseases

10:10 - 10:30 Tovi Lehmann (NIH)
Harnessing Mosquitoes for Epidemic Surveillance and Research

10:30 - 11:00 Break – Feinstone Hall (E2030)

11:00 - 11:20 Carolina Barillas-Mury (NIH)
Mosquito Immunity

11:20 - 11:40 Christopher Potter (JHU)
Chemosensory Function of Mosquito Repellents

11:40 - 12:00 Fabiano Oliveira (NIH)
Measuring exposure to Aedes mosquito bites and risk of dengue through antibodies to mosquito salivary proteins.

GROUP PHOTO IN THE GALLERY OUTSIDE OF SHELDON HALL

12:15 - 1:30 Lunch – Feinstone Hall (E2030)

TOUR OF THE INSECTARY WILL BE OFFERED DURING LUNCH TIME (leaves from E2030 at ~1:00 PM)

Limited seating available in E2030 with additional seating available on the 1st and 2nd floors in and around the Daily Grind coffee shop.

- 1:30 - 1:50Joel Vega-Rodriguez (NIH)
Host-Parasite-Vector Interactions During Malaria Transmission
- 1:50 - 2:10Ali Afify (Drexel)
Mosquito Olfaction
- 2:10 - 2:30 Johannes Doehl (NIH)
Immune-Induced Itch Drives Rapid Tick Removal in Vertebrates
- 2:30 - 3:00Break – Feinstone Hall (E2030)

Short Talks

- 3:00 - 3:15Upasana Singh (Vanderbilt)
Characterization of Anopheline Ionotropic Receptors in Larval Life Stages
- 3:15 - 3:30Colleen Kazokas (Drexel)
From Segregation to Swarms: The Influence of Racial Residential Segregation on Mosquito Burden in Philadelphia Census Tracts
- 3:30 - 3:45Diego Giraldo (JHU)
Decoding lactic acid and CO₂ synergy in the Aedes aegypti nervous system
- 3:45 - 4:00Emily Bencosme Cuevas (NIH)
Identification of neutralizing ultra-long bovine antibodies against *Anopheles* apyrase and *Plasmodium* circumsporozoite protein (CSP) for prophylactic and transmission-blocking-based interventions

Stretch Break

- 4:00 - 4:15Joanna Konopka (JHU)
Mosquito biting dynamics at the human skin interface
- 4:15 - 4:30Daniel Sonenshine (NIH)
Spotted Fever rickettsioses in the United States, Mexico and South America
- 4:30 - 4:45Xinmi Zhang (JHU)
Linking human odor to mosquito digestive and gene-expression responses
- 4:45 - 5:00Renuka Elizabeth Joseph (NIH)
Evaluation of salivary proteins as potential targets for malaria transmission-blocking interventions in mosquitoes

Leave for Captain James Crab House (2127 Boston Street, Baltimore, MD 21231, next to water across road from the restaurant, Ph: 410-675-1819).

6:00 to 8:00pm ...Crab feast at Captain James Landing

DAY 2: FRIDAY JUNE 6, 2025

Johns Hopkins Bloomberg School of Public Health

All breaks are in Feinstone Hall - E2030, 2nd Floor
All talks are in Sheldon Hall - W1214, 1st Floor

8:30 - 9:15 Light breakfast – Feinstone Hall (E2030 – 2nd Floor)

Chalk Talks

9:20 - 9:50 Doug Norris (JHU)
Vector and Pathogen Biology, Ecology and Genetics

9:50 - 10:10 Yuemei Dong (JHU)
Overview of projects in the Dimopoulos lab

10:10 - 10:30 Conor McMeniman (JHU)
Mosquito Chemosensory Biology

10:30 - 11:00 Break– Feinstone Hall (E2030)

Short Talks

11:00 - 11:15 Rohit Chebbi (NIH)
Baculovirus: a Potential Tool for Enhanced Gene Silencing in Mosquitoes

11:15 - 11:30 Joshua Raji (JHU)
IR8a expression and functions in the malaria mosquitoes

11:30 - 11:45 Maithili Sawant (Drexel)
Hexagonal Boron Nitride (h-BN) – A novel repellent for protection against mosquito bites

11:45 – 12:00 Pedro Amado Cecilio (NIH)
Leishmania sand fly-transmission is disrupted by Delftia tsuruhatensis TC1 bacteria

12:15 - 1:30 Lunch– Feinstone Hall (E2030)

1:30 - 1:45 Renee Ali (JHU)
Under the radar: Detection of the invasive Aedes vittatus in Jamaica

1:45 - 2:00 Lusajo Mwakibete (JHU)
Deorphanizing An. gambiae Odorant Receptors implicated in detection of human scent

- 2:00 - 2:15 Cole Meier (JHU)
Terpenoids as spatial repellents against An. gambiae
- 2:15 - 2:30 Huiruo Zeng (Drexel)
The effect of ethyl anthranilate on *Anopheles coluzzii* mosquito oviposition and egg hatching.
- 2:30 - 3:00 Break – Feinstone Hall (E2030)
- 3:00 - 3:15 Elaine Chu (JHU)
Can olfactory cues shape mosquito immunity?
- 3:15 - 3:30 Xiang Yin (JHU)
STR Typing - Identifying Humans in Mosquito Blood Meals
- 3:30 - 3:45 Stefano Garcia Castillo (JHU)
The role of Vasa protein for localization of transgenic cargo to Anopheles gambiae germ plasm
- 3:45 - 4:00 Gladys Gutierrez Bugallo (JHU)
Inheritance of infection: Vertical transmission of arboviruses in Aedes aegypti

Stretch Break (5 min)

- 4:00 - 4:15 Owen Jaeck (JHU)
Seasonal Bionomics and Infection Status of Mosquitoes in the Mid-Atlantic Region
- 4:15 - 4:30 Hannah Sproch (JHU)
The effect of Plasmodium falciparum parasite burden on vectorial capacity and mosquito behavior
- 4:30 - 4:45 Luis Martinez (Vanderbilt)
Next-generation insect spatial repellents target the Orco olfactory coreceptor
- 4:45 - 4:50 Closing Remarks and Drawing of Gift Certificate
- 5:00 - 7:00 Casual Happy Hour at Ministry of Brewing
1900 E Lombard St, Baltimore, MD, 21231

This event is generously supported by Bloomberg Philanthropies and the Johns Hopkins Malaria Research Institute