



## **CAES SEMINAR SERIES**

In person and on Zoom:

<https://us02web.zoom.us/j/87495248660?pwd=dXcrSFFpMjBJZzR2enNXOUJtU2FOQT09>

Meeting ID: 874 9524 8660

Passcode: SwexF1

# **“Potential Roles of Blood Feeding Behavior and Gut Microbiota Composition on Mosquito Vectorial Competence”**

**Dr. Zannatul Ferdous**  
**Postdoctoral Research Scientist**  
**Dept. of Environmental Sciences, CAES**

**Wednesday, May 25, 2022**  
12:00 p.m. to 1:00 p.m.

Food and coffee will be available at 11:45 a.m.

**Jones Auditorium**  
**The Connecticut Agricultural Experiment Station**  
**123 Huntington Street, New Haven, CT**

Vector competency, a vector's ability to transmit a disease, is a dynamic trait influenced by numerous factors such as host genetics, phenotype-phenotype interactions, and the environment. In recent years, evidence has emerged that the gut microbiota can also influence a mosquito's competency for viruses and parasites by modulating gut immunity. Numerous anautogenous mosquito vectors have the propensity to acquire multiple blood meals within a single gonotrophic cycle in the field and the results suggest that the frequent blood feeding behavior can enhance the early dissemination of viruses and this trait is generalizable across some, if not most, virus-vector pairings. We have also demonstrated in another project that the gut microbiota composition plays a more important role in mediating virus infection than mere bacteria presence or absence. During this talk, Dr. Ferdous will present the exciting findings from these two projects.