

**BIOMEDICAL & VETERINARY SCIENCES
GRADUATE PROGRAM**



ANNOUNCES

The Master of Science Seminar and Examination of

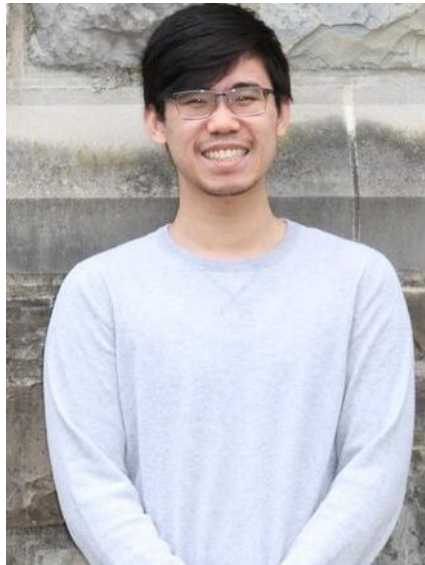
Tyler Bates

**“Characterization and Analysis of Usutu Virus
Infection and Transmission Potential”**

**Wednesday, December 16th, 2020
3:00PM**

Zoom: <https://virginiatech.zoom.us/j/89746365547>

Bio



Tyler Bates received his B.Sc in Microbiology from Virginia Tech. He pursued his M.S. in Dr. Weger-Lucarelli's lab in the Department of Biomedical Sciences and Pathobiology. Tyler's thesis focuses on Usutu virus, specifically looking into the development of Usutu virus infectious clones and vector competence of North American mosquitoes.

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Lay Language Abstract

Usutu virus is an emerging mosquito-borne virus currently causing mass-die offs in birds throughout Europe. This virus is closely related to West Nile virus, which raises many concerns. This thesis focuses on the development of Usutu virus infectious clones and evaluation of the transmission potential of North American mosquitoes to spread USUV. The development of Usutu virus infectious clones are valuable tools for researchers to study the viral genetic makeup and in vaccine development. The transmission potential of North American mosquitoes is important for determining whether Usutu virus could circulate in the United States. Due to the novelty of Usutu virus, these studies will bridge gaps in Usutu virus literature.

Publications

Development and characterization of infectious clones of two strains of Usutu virus (2020, Under Review)

American *Aedes japonicus japonicus*, *Culex pipiens pipiens*, and *Culex restuans* mosquitoes have limited transmission capacity for a recent isolate of Usutu virus (2020, Under Review)

Presentations

BMVS Seminar Fall 2020 – Development and Characterization of USUV Infectious Clones

Examination Graduate Committee

Major Advisor/Chair:

James Weger-Lucarelli, PhD
Research Assistant Professor
Department of Biomedical Sciences & Pathobiology

Graduate Advising Committee Members:

Nisha Duggal, PhD
Assistant Professor
Department of Biomedical Sciences & Pathobiology

Sally Paulson, PhD
Associate Professor
Department of Entomology



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