



THE PURDUE LECTURE HALL SERIES

Tuesday, March 9, 2021 @ 2:30pm

Purdue University

Topic: How EV-D68 Protein VP4 Interacts with Neighboring Proteins and Influences Host Infection

Guest Speaker: Jacqueline Anderson, PhD candidate, College of Science

EV-D68 generally infects the respiratory tract and is a large cause of colds and severe upper respiratory infections throughout the world. However, around 2014, EV-D68 gained the ability to infect the nervous system as indicated by outbreaks of Acute Flaccid Myelitis among young children, a disease that causes paralysis of one or more limbs, like polio. Unfortunately, there is no current medical treatment to treat EV-D68 infections or prevent neurological symptoms.

EV-D68 is a small virus that consists of a capsid surrounding RNA genetic material. This capsid is made of 4 structural proteins with VP4 being a small transiently exposed internal protein. There is not much known about how VP4 interacts with the other proteins of the virus capsid, how these interactions influence host cell entry, or how these interactions influence the effectiveness of potential antiviral drugs. My research project focuses on answering these questions.

I will talk about my journey to graduate school, some of the research that I am currently doing, and what I plan to do after I graduate. I hope to show that there are multiple paths to graduate school and that the journey is not always as straightforward as one thinks.

Background: Jacqueline is currently a PhD Candidate in the third year of her PhD in the Department of Biological Sciences at Purdue in the Kuhn lab. She is originally from Danville, IN where she went to Danville High School and continued to study at Ivy Tech and IUPUI earning her A.S. and B.S. in Biotechnology. She worked in the Weil Lab in Agronomy at Purdue as a Lab Manager involved in multiple projects on corn and sorghum. In August 2018 she joined the Biological Sciences PhD program at Purdue.



Jacqueline Anderson,
PhD Candidate

