Viral Traits

& Infectious Disease Emergence

September 9-10, 2024



Monday, 9 September

8:00 AM Welcome — *Light breakfast, coffee, tea, and juice*

Welcoming remarks given by John Drake, CEID

8:30 AM

Michael Letko:

"Looking for pre emergent threats with functional viromics"

9:00 AM

Christine Kreuder Johnson (REMOTE):

"On the Frontlines: Surveillance for Emerging Viruses"

9:30 AM Break — Light snacks, coffee, tea, and juice

10:00 AM

Angel Desai (REMOTE):

"Spillovers 2.0: Assessing the Risk and Preparing for Disease X"

10:30 AM

Iris Holmes:

"Will Pathogen X follow the path of other spillovers?"

11:00 AM

Panel discussion: The Big Picture

11:30 AM Working lunch — Lunch served in the CEID

1:30 PM

Sophie Lockwood:

"Leveraging within-host models to understand patterns in viral virulence and shedding"

2:00 PM Poster session and break — Light snacks, coffee, tea, and juice

3:00 PM

Alison Kell:

"Understanding hantavirus virulence through host-specific innate immune activation"

3:30 PM

Raina Plowright (REMOTE):

"Determinants of spillover from virus and host perspectives"

4:00 PM

Panel Discussion: The Host Perspective

4:30 PM

Conclusion and review of details for symposium dinner

6:00–9:00 PM Dinner — Networking dinner at the Rialto Club, Hotel Indigo

Tuesday, 10 September

9:00 AM Breakfast — Light breakfast, coffee, tea, and juice

9:15 AM

Review of the agenda and welcoming remarks

9:30 AM

Colin Carlson (REMOTE):

"Looking for biochemistry in all the wrong places:

the dimensionality-interpretability tradeoff and embedding-based shortcuts"

10:00 AM

Asher Leeks (REMOTE):

"Social conflict within viral populations:

from evolutionary causes to epidemiological consequences"

10:30 AM

Tyler Starr:

"Molecular evolution of SARS-CoV-2 and related bat coronaviruses"

11:00 AM

Jayna Raghwani:

"How do viruses persist in changeable environments?"

11:30 AM Panel Discussion: The Virus' Point of View

12:00 PM Working lunch — Lunch served in the CEID

1:00 PM

Stephanie Siefert:

"Predicting host-virus compatibility from -omics data: promise and pitfalls"

1:30 PM

Louise Moncla:

"Phylodynamic approaches for reconstructing

highly pathogenic avian influenza evolution and transmission"

2:00 PM

Heather Wells:

"Genetic and Ecological Drivers of Coronavirus Recombination"

2:30 PM

Katia Koelle:

"Viral traits and pandemic emergence:

can we bridge the disconnect with multiscale models"

3:00 PM Panel Discussion: Ecology, Evolution, and Genetics

3:30 PM Break — Light snacks, coffee, tea, and juice

3:45-5:00 PM

Synthesis Session and closing remarks