



Institute colloquium

[Online] Uncovering the determinants of pathogen diversity in nature

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Host: Nick Barton

Pathogens are prevalent across all ecosystems and they may have strong negative effects on their hosts. Hence, there is a pressing need to understand risks of infection and how these evolve. To date, host-pathogen interactions have been largely viewed within the 'one host-one parasite' framework although in reality the same host may be attacked by a myriad of pathogenic microbes. As molecular tools have become increasingly available for the study of parasites, we now know that a single host individual can support a highly diverse pathogen community. However, remarkably little is known about the factors that determine which pathogens co-occur within the same host individual and how they interact. Theoretically the resulting interaction has been proposed to range along a continuum where at the one end we find superinfection with a single strain gaining dominance of the entire host, and at the other end of the continuum we find coinfection. In my talk I will present case studies of within host pathogen strain diversity and species diversity, and what we know to date of the determinants and consequences of this diversity for both evolutionary and epidemiological dynamics. How to attend: Registration is required to join this online talk. Registered participants will receive an email with details on how to join the talk within 24 hours before it begins.

Monday, September 7, 2020 04:00pm - 05:00pm

Online



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.