

## From Molecules and Pathogens to Populations and Pandemics

How can we curb disease spread to regions and the globe?



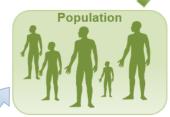
Human mobility and disease risk

How do within-species pathogen dynamics affect between-species transmission?



Effect of anthropogenic changes to biodiversity

How do host-pathogen and pathogen-pathogen/microbiome interactions drive between-host transmission?



Pathogen transmission and population heterogeneity



Molecular mechanisms of infection, immune evasion and pathogenesis