I am a theoretical biologist specialized in the evolution of infectious diseases.

I use models from epidemiology, evolutionary ecology and population genetics to better understand (and predict) how diseases spread and evolve within and between hosts. I am especially interested in nested models that link within-host pathogen dynamics to epidemiological dynamics.

Some of the biological systems I am especially interested in are hepatitis C virus, HIV, vector-borne plant viruses, a protozoan parasite of Monarch butterflies and malaria.