



Phylogeography is a discipline that analyzes how changes at the level of the viral genome can impact spread of epidemics and pandemics. This science studies the geographical lineages of species and uses DNA sequences to model their geographic diffusion and genetic diversity over time. RNA viruses are of particular interest in this field because of their short genomes and rapid rate of mutations. In the ZooPhy lab at Arizona State University, we use phylogeography to study the spread of RNA viruses including influenza, West Nile virus, and Ebola virus. We are developing an online portal (<http://zodo.asu.edu:8080/zoophy/>) to help health agencies understand the genetic diffusion of viruses with pandemic potential. This project will develop new models of RNA virus spread including studying how climate, demographic, and genetic factors influence the spread.

**Contact Information:**

Matthew Scotch, PhD, MPH  
Associate Professor  
Department of Biomedical Informatics  
College of Health Solutions  
Arizona State University  
480.884.0245