

Dr. Nathan Grubaugh is Assistant Professor of Epidemiology at the Yale School of Public Health and head of the Grubaugh Lab studying virus emergence, transmission, and evolution. His lab uses genomics to determine the emergence risk and to track the spread of mosquito-borne viruses. Specifically, the lab sequences viruses during outbreaks for epidemiological investigations (genomic epidemiology), determines the disease phenotype and transmission fitness of novel virus mutations that occur during outbreaks (functional genomics), and maps the evolutionary pathways that a virus may take to adapt to a new environment (experimental evolution). Their goals are to integrate genomic data into surveillance and response programs to better prevent and control future mosquito-borne virus outbreaks.

Dr. Grubaugh earned his PhD in microbiology with a focus on West Nile virus evolution from Colorado State University in 2016 and went on to be a postdoctoral fellow at The Scripps Research Institute to study the 2015-2017 Zika virus epidemic. He also has a MS in biotechnology from Johns Hopkins University. Prior to graduate school, he spent around 7 years working in the biotech industry doing toxicology studies, monitoring food production lines for pathogens, and developing early phase vaccine candidates.