

MOLECULAR EPIDEMIOLOGY OF INFECTIOUS DISEASE



#Infection&Immunity

#Bioinformatics

#Genomics

This senior seminar course will provide a broad overview of the application of modern molecular and genomics methods to infectious disease epidemiology. Topics will include the identification, classification, characterization, and monitoring of pathogens in human populations; the application of molecular methods to screening, prevention and treatment of infectious diseases; and the analysis of molecular and genomics data for disease. Globally relevant diseases such as salmonellosis, TB, COVID, and influenza will be highlighted.

TOPICS

- Pandemic response
- Outbreak investigation
- Genomic epidemiology
- High-throughput sequencing
- Microbial population structure
- Microbial genomics
- Outbreak investigation
- Bioinformatics
- Molecular diagnosis
- Molecular typing
- Public health surveillance
- Disease control and prevention

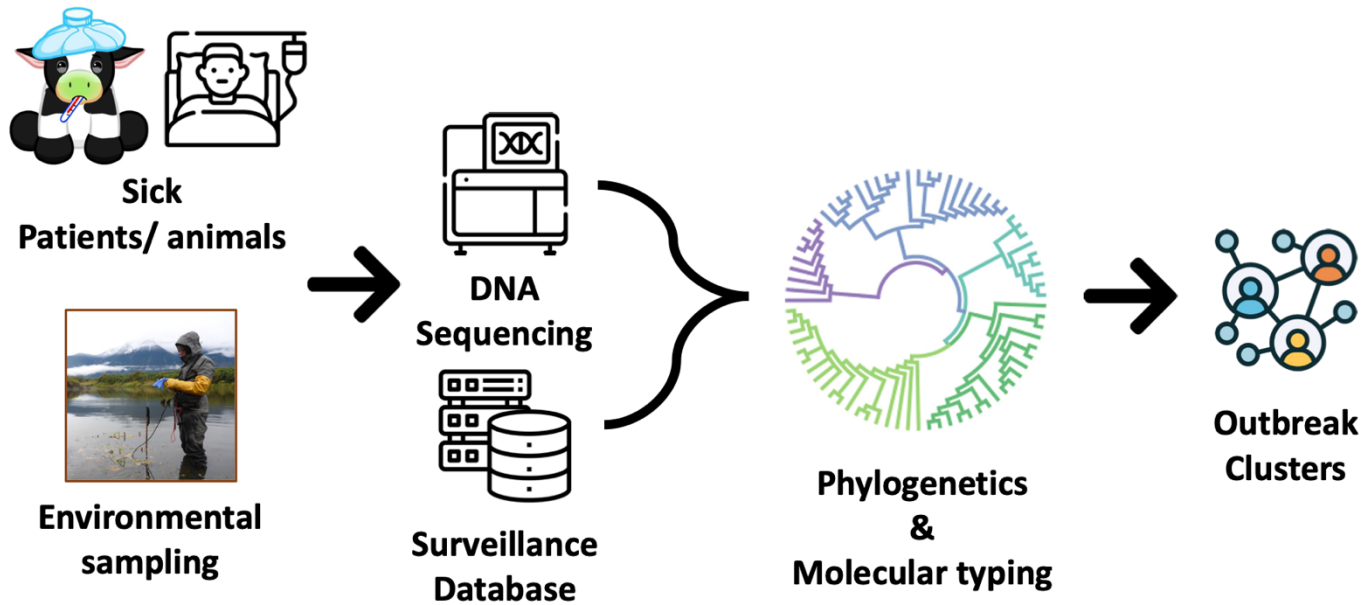
INSTRUCTOR

William Hsiao



Microbial genomics
and bioinformatics
scientist

Outbreak Cluster Analysis with Genomics



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