

# DEPARTMENT OF BIOSTATISTICS

[Students](#) / [Alumni](#) / [Intranet](#)

## ARCH ives Modules

### 11th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID)

#### Module 5: Evolutionary Dynamics and Molecular Epidemiology of Viruses

Session 2: Wed Jul 10 to Fri Jul 12

Instructor(s): [Lemey, Philippe](#), [Suchard, Marc](#)

**Module dates/times:** Wednesday, July 10, 1:30-5 p.m.; Thursday, July 11, 8:30 a.m.-5 p.m., and Friday, July 12, 8:30 a.m.-5 p.m.

**Prerequisites:** This module assumes knowledge of the material in *Module 1: Probability and Statistical Inference*, though not necessarily from taking that module.

This module covers the use of phylogenetic and bioinformatic tools to analyze pathogen genetic variation and to gain insight into the processes that shape their diversity. The module focuses on phylogenies and how these relate to population genetic processes in infectious diseases.

In particular, the module will cover Bayesian Evolutionary Analysis by Sampling Trees (BEAST). This software will be used in class exercises that are mainly focused on estimating epidemic time scales, reconstruction changes in viral population sizes through time and inference of spatial diffusion of viruses. Evolutionary processes including recombination and selection will also be considered.

[Access 2018 Course Materials](#) (Links under Assets on right-hand side)

## CONNECT

[Directory](#)

[Contact Us](#)

[Update Your Alumni Info](#)

## LEARN ABOUT

[Programs & Degrees](#)

[How to Apply](#)

[Careers in Biostatistics](#)

[Biostatistics Research](#)

## RESOURCES FOR

[Students](#)

[Faculty & Staff](#)

## FIND

---

[Site Login](#) / [Privacy](#) / [Terms](#)

| **SCHOOL OF PUBLIC HEALTH**

---