Biomedical Research Seminar Series

Speaker Announcement

Friday, November 9, 2018 @ 3:30 pm
Domenici Hall, Room 109
(Refreshments served at 3:00)

Barbara Han, PhD
Disease Ecologist
Cary Institute of Ecosystem Studies

Machine learning and the practice of prediction in disease ecology

With the continued global rise of infectious diseases there is increasing demand for tools that enable us to better forecast and predict future disease threats. Ideally, such predictions would help us to better target ongoing surveillance, and would also position global society to understand when spillover infections are most likely to occur, and how to best prevent them in the future. This seminar will give examples of predictive analyses that have been undertaken with the aid of machine learning algorithms, which were trained to identify particular wild species that may be the most likely carriers for human infectious pathogens. These analyses also generate hypotheses about why some species seem to be so much better at carrying zoonotic pathogens compared to others.