## GEORGE MASON UNIVERSITY COLLEGE OF SCIENCE BIOLOGY DEPARTMENT SEMINAR Spring 2016

## Carlos Machado, Ph.D. Department of Biology University of Maryland, College Park

## "Genomics of species divergence at different time scales"

I will present our recent work investigating the nature of genomic changes during species divergence. First I will focus on a very recent divergence event caused by humans: African rice domestication. I will present evidence of parallel but independent rice domestication in Africa and Asia that nonetheless targeted similar genes and led to similar phenotypic outcomes. In the second section of the seminar I will present results from several studies addressing the divergence process of two Drosophila species used in classic evolutionary studies: *Drosophila pseudoobscura* and its close relative *D. persimilis*. I will present evidence from comparative genomic data, population genomic data and transcriptome data highlighting the importance of genomic rearrangements and sex-specific differences driving the divergence of this species pair.

## TUESDAY February 23, 2016 3:00-4:15 PM

Fairfax Campus: Innovation Hall Room 334 Science & Technology Campus: OCC 221