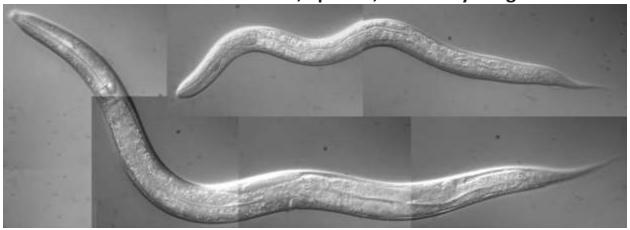
The Molecules that Define Races, Species, and Everything in Between



Since at least Darwin's time, biologists have studied how one population of individuals becomes two distinct, reproductively isolated populations: the origin of species. One of Dr. Ross' research interests in evolutionary genetics is understanding how DNA sequence differences that distinguish two populations can cause hybrid offspring to be less healthy. Eventually, such fitness-altering mutations that cause hybrid dysfunction are expected to contribute to the speciation process. Ross' research lab has identified hybrid dysfunction between two populations of the model worm *Caenorhabditis briggsae*, a close relative of *C. elegans*. Dr. Ross will share the efforts research students have made to describe and identify the molecular and genetic basis of hybrid dysfunction. One potential application of such efforts is to inform policy related to artificial fertilization

Joseph Ross, PhD Fresno State Friday, February 8, 2019

> 3:00 – 4:00 PM Science 2, room 109

For further information: www.csufresno.edu/biology

<u>Bio:</u> Dr. Ross is an Associate Professor at Fresno State and was the recipient of the Provost's Innovation Award in 2016. Dr. Ross earned his B.A. in Biochemistry from the University of Oregon and his Ph.D. in Molecular and Cell Biology from the University of Washington. His laboratory's research interests generally involve identifying changes in DNA sequence and understanding what forces promote the maintenance of those novel sequence variants.