



Undergraduate Summer Internship in Systems Biology

Internship Project Description: Summer 2018

Project Title: Bioinformatics: Comparative Genomics and (Alien) Evolution

Supervisor Name: Leonid Peshkin

Lab PI Name: Marc Kirschner

Project Description:

Complete genome sequencing is aiming at unraveling key principles in biology and evolution by cross-specie comparison, finding what is present and what is missing and why, when certain inventions in the form of new genes or new functions appear in evolution and how. You will study what is involved in obtaining a complete genome of new species and focus on two recent sensational "alien" genomes: octopus and tardigrade to study these using new computational tools.

Related Links:

<http://www.nature.com/news/octopus-genome-holds-clues-to-uncanny-intelligence-1.18177>

<http://www.higherperspectives.com/octopus-alien-1429975552.html>

<http://www.sciencealert.com/the-tardigrade-genome-has-been-sequenced-and-it-has-the-most-foreign-dna-of-any-animal>