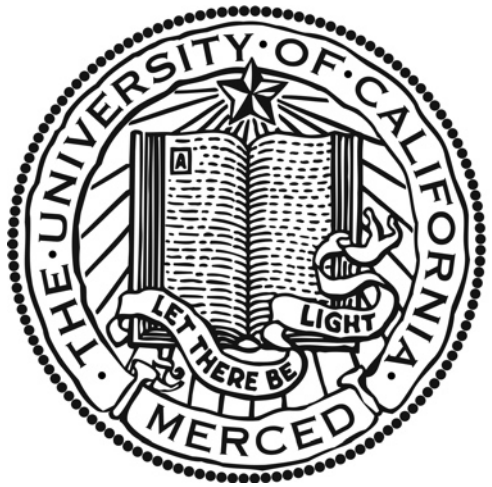
Introduction to Scientific Computing: A Crash Course



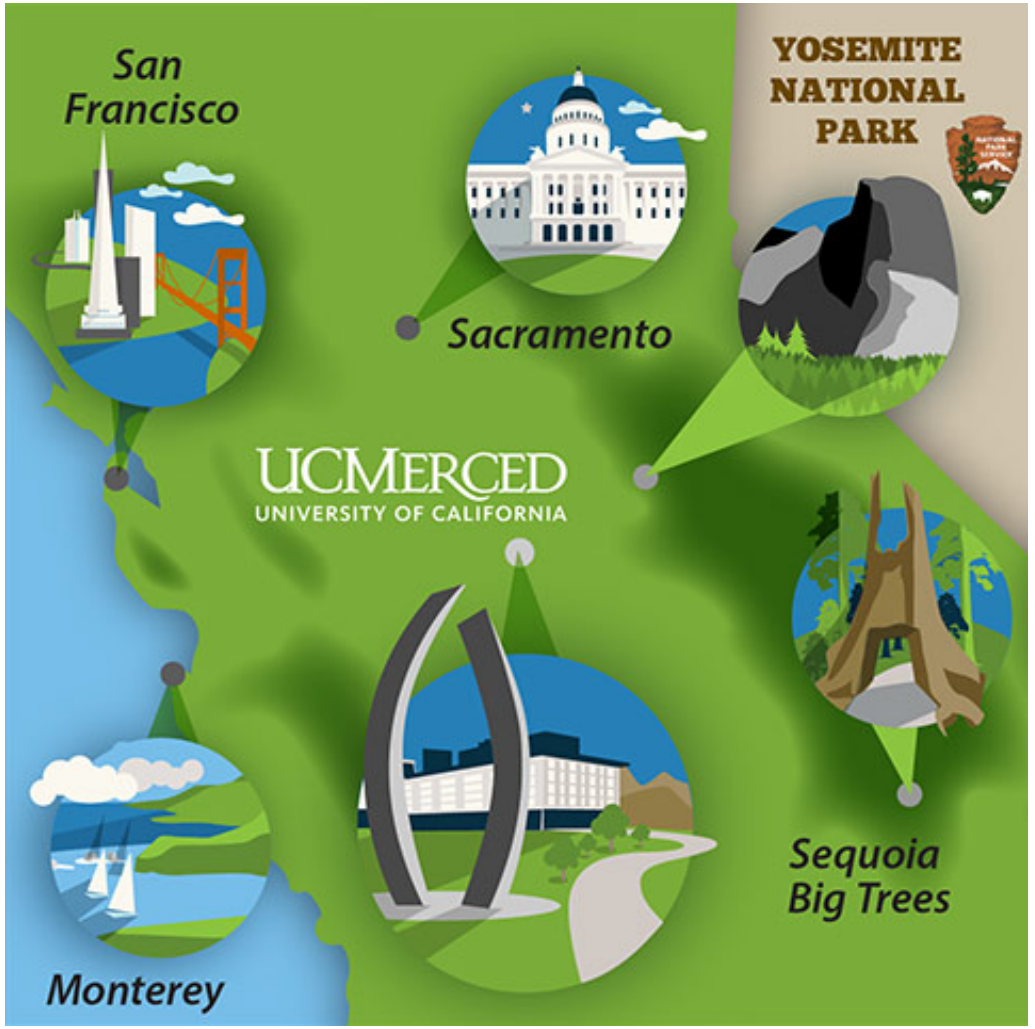
Dana L Carper and Travis J Lawrence

Quantitative and Systems Biology

University of California, Merced

Who are we?

- Doctoral Candidates at the University of California, Merced
  - Quantitative and Systems Biology Graduate Program



Who are we?

- Travis J Lawrence evolutionary biologist with interests in developing methods to resolve deep branching phylogenetic relationships

- Dana L Carper environmental microbiologist with interests in symbiotic relationships between plants and their microbiomes

Learn More about our Individual Research

Travis J Lawrence

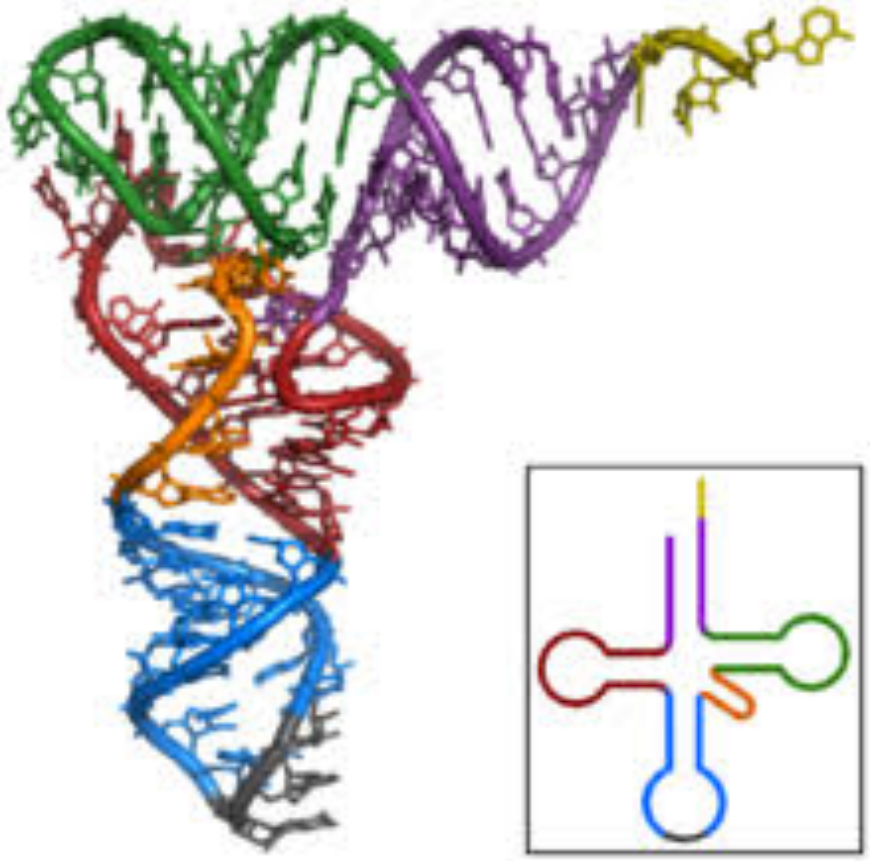
Title: tRNA Interaction Network Sheds Light on the Origin of Chloroplast

Abstract ID: 50

Date: 6/27/17

Time: 1:45 pm

Location: Fort Worth Ballroom 4/Omni Hotel



Learn More about our Individual Research

Dana L Carper

Title: The effect of climate change and site on the above- and belowground bacterial endophytic communities of subalpine conifer seedlings

Abstract ID: 264

Date: 6/27/17

Time: 11:00am

Location: Fort Worth Ballroom 5/Omni Hotel

Why command line?

- Scientific data often comes as text files (or Flat files)
  - easily manipulated using command line
- Newer techniques are producing larger amounts of data
  - Harder to work with in conventional ways
- Issues have been found with software that is commonly used

What to expect from this course

- At the end of this Course:
  - An understanding of using and the uses of a terminal
  - Familiarity with installing programs from source code
  - Ability to manipulate text files using command line
  - Have an understanding of sequence file structure and how to work with these files
  - A basic introduction to computer programming logic
  - Develop fundamental skills for writing scripts in python

Don’t worry if this seems hard!

- Like any skill it takes time to develop
- Practice makes it easier