

# Quick Introduction to the Workshop and Core

Bioinformatics Prerequisites

March 2019

The **mission** of the Bioinformatics Core facility is to facilitate outstanding omics- scale research through these activities:

### Data Analysis

The Bioinformatics Core promotes experimental design, advanced computation and informatics analysis of ‘omics’ scale datasets that drives research forward.

### Research Computing

Maintain and make available high-performance computing hardware and software necessary for todays data-intensive bioinformatic analyses.

### Training

The Core helps to educate the next generation of bioinformaticians through highly acclaimed training workshops, seminars and through direct participation in research activities.

# UC Davis Bioinformatics Core in the Genome Center

## Core Facility Manager

Dr. Matthew Settles

## Faculty Advisor

Dr. Ian Korf

### Data Analysis Group

#### Genomics Bioinformatics

Dr. Joseph Fass  
Dr. Monica Britton  
Nikhil Joshi

#### Proteomics Bioinformatics

#### Metabolomics Bioinformatics

Dr. Jessie Li

#### Biostatistics

Dr. Blythe Durbin-Johnson

#### Undergraduate Assistants

### Research Computing Group

#### System Administration

Michael Casper Lewis  
Richard Feltstykke

#### Database/Web Programming

Adam Schaal

#### Undergraduate Assistant

# Contacts

- Bioinformatics related questions, include but not limited to  
bioinformatic methods questions, software use, data questions  
[bioinformatics.core@ucdavis.edu](mailto:bioinformatics.core@ucdavis.edu)
- Computing Issues, include but not limited to  
User account questions, equipment failure/malfunction, software  
install, software failures (not related to use)  
[helpdesk@genomecenter.ucdavis.edu](mailto:helpdesk@genomecenter.ucdavis.edu)
- Training courses information  
[training.bioinformatics@ucdavis.edu](mailto:training.bioinformatics@ucdavis.edu)

# Internet

Eduroam, If your home institution is on eduroam, you should be on already

- <http://itcatalog.ucdavis.edu/service/eduroam>

UCD Guest Wireless

- <http://itcatalog.ucdavis.edu/service/wireless-guest-access>

# Lunch

Lunches this workshop will be done with “Aggie” cash, \$75 card in your nametag. Usable anywhere on campus, does not expire, and is not replaceable.

Please do not loose!

# Workshop materials

Workshop materials posted on github, publicly available

<http://bioinformatics.ucdavis.edu/training/events/>

<http://bioinformatics.ucdavis.edu/training/documentation/>

- Github main page:

<https://github.com/ucdavis-bioinformatics-training>

- This Bioinformatics Prerequisite Workshop

<https://ucdavis-bioinformatics-training.github.io/2019-March-Bioinformatics-Prerequisites/>

<https://github.com/ucdavis-bioinformatics-training/2019-March-Bioinformatics-Prerequisites>

# Computing cluster

- Course will be conducted on our servers and compute cluster **tadpole.genomecenter.ucdavis.edu**
- Everyone should get an account.
  - <https://computing.genomecenter.ucdavis.edu>
  - Request an account -> sponsor Bioinformatics Core Workshop
  - If you already have an account on our systems, then please tell us your login
- Cluster usage will be under the slurm reservation 'workshop'
  - Reservation will last 1 full week after the workshop and allow you to practice or run analyze your own data.

**workshop      ACTIVE 2019-03-22**

# Prerequisites

- Access to a multi-core (24 cpu or greater), 'high' memory 64Gb or greater Linux server.
- Familiarity with the 'command line' and at least one programming language.
- Basic knowledge of how to install software
- Basic knowledge of R (or equivalent) and statistical programming
- Basic knowledge of Statistics and model building