

Quick Introduction to the Workshop and Core

Bioinformatics Prerequisites

August 2018

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 today's 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
- 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
- Training courses information
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, \$15/day card (\$60 total, Friday is Dos Coyote) 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/2018-September-Bioinformatics-Prerequisites/>

<https://github.com/ucdavis-bioinformatics-training/2018-September-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 2018-08-26T00:00:00 2018-09-09T00:00:00 14-00:00:00

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