

Bioinformatics for Beginners : Hands-on Training

Agenda

10.30 AM to 10.45 AM: Morning Break

12 PM - 1 PM: Lunch Break

3 PM - 3.15 PM: Afternoon Break

Day1: Instructor: Dr. Vijay Nagarajan PhD (AABI, NIAID)

9 AM to 10.30 AM: Bioinformatics in a box: overview - Lecture

10.45 AM - 12 PM: Biomedical Data, Databases & Tools - Hands-on

1 PM - 5 PM: Sequence analysis & function prediction - Hands-on

Day2: Instructor: Dr. Kurt Instructor Wollenberg PhD (NIAID)

9 AM to 10.30 AM: Intro to similarity search, multiple seq alignment and phylogeny - Lecture

10.45 AM - 12 PM: Pairwise alignment & similarity search exercise - Hands-on

1 PM - 2 PM: Multiple sequence alignment exercise - Hands-on

2 PM - 5 PM: Building and analyzing phylogenetic trees - Hands-on

Day3: Instructor: Dr. Michael Dolan PhD (NIAID)

9 AM to 10.30 AM: Overview of computational structural biology - Lecture

10.45 AM - 12 PM: Structure databases - Hands-on

1 PM - 2 PM: Structure visualization, comparison and analysis - Hands-on

2 PM - 5 PM: Structure modeling, Structure quality, Molecular dynamics - Hands-on

Day4: Instructor: Dr. Vijay Nagarajan PhD (AABI, NIAID)

9 AM to 10.30 AM: "Omics" data analysis and visualization - Lecture

10.45 AM - 12 PM: "Omics" data analysis and visualization - Hands-on

1 PM - 2 PM: Linux Basics - Hands-on

2 PM - 5 PM: Basics in R, Perl and Scripting - Hands-on

Installations:

If you plan to bring/use your own laptop (which we strongly suggest), please install the following software;

X2Go

<http://wiki.x2go.org/doku.php/download:start>

Double click the X2GO client icon after installation, to make sure it doesn't throw any errors.

Mac user might need to install Xquartz, which might need admin privileges, if prompted by the X2GO client after its installation.