

CLIMB-BIG-DATA Online Bioinformatics Workshop

5th and 6th October 2020

Day 1

Monday, October 5th - from 1:00 pm until 5:30 pm

Zoom Details: Topic: CLIMB-BIG-DATA workshop - Day 1

Time: Oct 5, 2020 1:00 PM London

Join Zoom Meeting

<https://us02web.zoom.us/j/87831912380?pwd=VnBpZTdLUmJDWW5mWmtKc1gxRTRUUT09>

Meeting ID: 878 3191 2380

Passcode: 199946

Day 2

Tuesday, October 6th - from 9:30 am until 1:00 pm

Zoom Details: Topic: CLIMB-BIG-DATA Workshop - Day 2

Time: Oct 6, 2020 09:30 AM London

Join Zoom Meeting

<https://us02web.zoom.us/j/89770433042?pwd=c3RhU3VyMzlxRDROYWZsSmg4UHlUT09>

Meeting ID: 897 7043 3042

Passcode: 005395

Tutors

Andrea Telatin: Bioinformatician, Quadram Institute Bioscience - Norwich

Anna Price: Research Software Engineer, Cardiff University

Mark Pallen: Principal Investigator, CLIMB-BIG-DATA
Group Leader, Quadram Institute Bioscience - Norwich
VC's Fellow, University of Surrey

Learning objectives

- Understand that most bioinformatics files are simple text files with a specific format
- Understand how to interact with a Command Line Interface
- Understand the client/server model
- Understand filesystem paths
- Learn how to login to a remote Unix server (ssh)
- Learn how to navigate and manipulate the filesystem (pwd, cd, ls, mkdir)
- Learn how to extract information from text files (cat, head, tail, grep, cut, sort ...)
- Learn to redirect STDOUT/STDERR / how to create simple pipes
- Learn how to use the Miniconda package manager to install a program (spades)
- Learn how to run a bioinformatics program and inspect its output

Programme

Day 1

Introduction to the command line, the client-server model and the UNIX filesystem.

1.00 pm Welcome and Introductions
Talk – **Introduction to Unix and the command line and virtual machines**
Logging into the training server
First commands: pwd, ls, mkdir

16.00 *Break*

16.30 **Text files:** cat, head, tail, grep, wc

Day 2

Using the command line with bioinformatics files

9.30 Talk – **Bioinformatics file formats**
Pipes and redirections, more on text files

11.00 *Break*

Running a bioinformatics program
Final remarks, Q&A