Agenda

9:00  Welcome: Introductions, logistics, background

  Galaxy with RNA-seq

9:30  Concepts, formats, and quality control

10:45 Break

11:00 Mapping reads to a genome

12:20 Lunch

1:20  Differential expression

2:50 Break

3:05 Creating reusable workflows

5:00 Done
Today's materials

• Some slides specific to this workshop
• Galaxy Training Network
• Slides and Tutorial
• All of it available online.
  • https://galaxyproject.org/events/2018-01-csusm-workshop/
Today's Goals

• Teaching you how to do bioinformatic analysis in Galaxy
• We'll use an RNA-Seq example to do that
• At the end of the day you'll have a basic understanding of
  • how to use Galaxy to explore, run, and share bioinformatics analyses
  • how to get Galaxy and bioinformatics help
  • RNA-Seq data analysis
What is Galaxy?

Keith Bradnam's definition:

"A web-based platform that provides a simplified interface to many popular bioinformatics tools."

From

"13 Questions You May Have About Galaxy"

• Lets do a whirlwind introduction to the Galaxy interface.
• Most of what we touch in this intro we will revisit later today.

usegalaxy.org
Galaxy is available several ways ...

http://galaxyproject.org
Galaxy is an open source, web-based platform for data intensive biomedical research. If you are new to Galaxy start here or consult our help resources. You can install your own Galaxy by following the tutorial and choose from thousands of tools from the Tool Shed.

Galaxy Project Retweeted
Pratik Jagtap @pratikomcs
z.umn.edu/haye/hym How are you - and How's your Microbiome? an article in @AnaSci Issue#1116 microbiome metaproteomics usegalaxy

Galaxy Project @galaxyproject
28-30 Nov: Analyse avancée de séquences, Bordeaux
cns’formation.cnrs.fr/stage-16148-An… #usegalaxy @ogfbordeaux
Public Galaxy servers

**General Purpose / Genomics servers**
19 servers as of this yesterday

**Domain Specific**
36 servers

**Tool publishing servers**
44 servers

**Total**
99 servers

bit.ly/gxyServers
Can't use a service? Galaxy is available on other Clouds

http://aws.amazon.com/education
http://globus.org/
http://wiki.galaxyproject.org/Cloud
https://launch.usegalaxy.org/
Community and Ecosystem

galaxyproject.org
The Galaxy Team

Enis Afgan  Dannon Baker  Dan Blankenberg  Dave Bouvier  Marten Cech  John Chilton

Dave Clements  Nate Coraor  Jeremy Goecks  Sam Guerler  Jen Jackson

Vahid Jalili  Delphine Lariviere  Anton Nekrutenko  Nick Stoler  James Taylor

https://galaxyproject.org/galaxy-team
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