

Draft: G-OnRamp Workshop Agenda
Washington University, June 12-15, 2018

Tuesday, June 12 Travel to St. Louis or Conclusion of GEP Alumni Workshop

- Noon Check-in noon – 4 pm *Village Dorm, ground floor*
(if after 4 pm call W Leung 314-651-7239; if 8 pm - midnight, contact WU Summer Housing 314-935-5015; arriving after midnight or emergencies, call WU Campus Police, 314-935-5555)
- 2 – 4 pm NSLC computer lab open for review of Galaxy 101 OR for building familiarity with genome browsers (UCSC or JBrowse)
Life Sciences, first floor; staff available
- 5:00 pm Welcome Reception
Village Dorm Fireplace Room, ground floor
(sign up for Friday box lunches)
- 6:00 pm Dinner (*Catered; Village Dorm Fireplace Room, ground floor*)
- 7:00 pm Welcome to the G-OnRamp Workshop:
Introduction to the GEP, Galaxy and G-OnRamp; Goals for the Workshop
Jeremy Goecks and Sarah Elgin
- Overview: Goals of participants
All attendees

Wednesday, June 13

- 7:30 am Breakfast at the Knight Center (*second floor buffet*)
- 8:30 am Overview of Galaxy: Using Galaxy to analyze RNA-Seq data
Yating Liu and Luke Sargent
NSLC Computer Lab, Washington University Danforth Campus
- 10:15 am Coffee break
NSLC Lounge
- 10:30 am Introduction to G-OnRamp (lecture)
Luke Sargent and Jeremy Goecks
- Introduction to G-OnRamp (walkthrough):
Use G-OnRamp to create a genome browser for the *D. biarmipes* F element
Yating Liu
NSLC Computer Lab

- 12:00 noon Lunch: informal discussions
(Get sandwiches, salads etc. at the DUC, Starbucks, Subway, Grounds for Change)
NSLC Computer Lab will remain open for continuing work if desired
- 1:00 pm Customize the Genome Browsers produced by G-OnRamp,
including adding and editing evidence tracks.
Yating Liu
NSLC Computer Lab
- 2:30 pm Break: sodas and munchies
NSLC Lounge
- 2:45 pm Use G-OnRamp to create Genome Browsers for whole genome assemblies.
Practice time: Explore the Genome Browsers created by G-OnRamp
NSLC Computer Lab
- 4:15 pm As needed: Transfer large genomic datasets to G-OnRamp (walkthrough)
Wilson Leung
- 5:15 pm Recap: what worked well, what did not — user feedback
- 6:00 pm Dinner (*catered*)
Discussion: utilization of G-OnRamp and Galaxy in undergraduate research
(all attendees)

Thursday, June 14

- 7:30 am Breakfast at the Knight Center (*second floor buffet*)
- 8:30 am Use Apollo to do collaborative genome annotation (walkthrough)
Wilson Leung
NSLC Computer Lab
- 10:15 am Coffee break
NSLC Lounge
- 10:30 am Use G-OnRamp to set collaborative annotation environment on Apollo (add
assembly hubs, add annotators, reviewers, etc.)
Yating Liu
NSLC Computer Lab
- 12:00 noon Lunch: informal discussions
(Get sandwiches, salads etc. at the DUC, Starbucks, Subway, Grounds for Change)

NSLC Computer Lab will remain open for continuing work if desired

- 1:00 pm Comparative gene annotation with G-OnRamp (multiple sequence alignments)
Wilson Leung
NSLC Computer Lab
- 2:30 pm Break: sodas and munchies
NSLC Lounge
- 2:45 pm Deployment options for G-OnRamp (*e.g.*, centralized server, Docker, Virtual Machines) on local servers or on a public cloud (*e.g.*, Amazon EC2, Microsoft Azure, Jetstream).
Luke Sargent
NSLC Computer Lab
- 4:15 pm Moving data to/from CyVerse Data Store
Luke Sargent
- 5:15 pm Recap: what worked well, what did not — user feedback
- 6:00 pm Dinner (*barbecue*)
Discussion: future directions, utilization of G-OnRamp and Galaxy in undergraduate research (all attendees)

Friday, June 15

- 7:30 am Breakfast at the Knight Center (*second floor buffet*)
(*bring bags to NSLC; must vacate dorm rooms by 11 am*)
- 8:30 am Use Galaxy / G-OnRamp to analyze Epigenomics / ChIP-seq data
Jeremy Goecks
NSLC Computer Lab
- 10:00 am Coffee break, *NSLC Lounge*
- 10:30 am Working groups / optional sessions meet.
- 12:00 noon Lunch (box lunches)
NSLC Classroom, LS 311
Working groups report to group as a whole
- 2:00 pm Wrap-up, future planning

As needed Depart for airport (*Metro 60' or shared rides 30'*)
(Plan travel to depart Washington University at noon or later)

Possible working groups / optional sessions:

- Differential expression analysis with RNA-Seq
- Use GEP web framework tools (*e.g.*, Gene Record Finder, Gene Model Checker) to facilitate student work and citizen-scientist annotation (W Leung)
- Tutorial on how to use the genome browsers well, such as utilizing custom tracks, changing view modes, reconciling annotations, etc. (J Goecks)
- Other as requested / designed by participants.

Last update: 02/08/2018