**G-OnRamp Workshop Agenda**

**Washington University, June 12-15, 2018**

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

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| Noon  2 – 4 pm | 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*)  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***

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| 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***

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| 7:30 am | Breakfast at the Knight Center *(second floor buffet)* |
| 8:30 am | Use G-OnRamp to set collaborative annotation environment on Apollo  Yating Liu  *NSLC Computer Lab* |
| 10:15 am | Coffee break  *NSLC Lounge* |
| 10:30 am | Use Apollo to do collaborative genome annotation (walkthrough)  Wilson Leung  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 curriculum (all attendees) |

***Friday, June 15***

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| 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 | Differential expression analysis with RNA-Seq  Wilson Leung  NSLC Computer Lab |
| 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:**

* 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: 06/04/2018