Institute for Systems Genomics Networking and Tech Expo

UConn Health Center
Grossman Auditorium
Farmington, Connecticut

Monday, May 13, 2019

9:00    Registration

9:30    Welcome/Introductory Remarks
        Rachel O’Neill, ISG Director, University of Connecticut

9:40    Center for Genome Innovation
        Bo Reese, Ph.D., University of Connecticut

10:00   Computational Biology Core
        Jill Wegryzn, Ph.D., University of Connecticut

10:20   Single Cell Genomics Center
        Paul Robson, Ph.D., The Jackson Laboratory for Genomic Medicine

10:40   Microbial Analysis, Resources, and Services
        Kendra Maas, Ph.D., University of Connecticut

11:00   Proteomics & Metabolomics Facility
        Jeremy Balsbaugh, Ph.D., University of Connecticut

11:20   Lunch

12:15   Overview and Applications of BioRad Droplet Digital PCR, optional
        (Grossman Auditorium)

12:30   HPC Server Tour, optional

1:00    Session 1 (choose one)
        Illumina Office Hours/Introduction (Demo Room)
        HPC Introduction (Grossman Auditorium)

2:00    Session 2 (choose one)
        Oxford Nanopore (Grossman Auditorium)
        IPA Tutorial (Demo Room)
The CGI offers a variety of training opportunities as well as NextGen sequencing and genotyping services. These services are available to UConn-affiliated researchers across all campuses and range from single run instrument access through full-service NextGen library preparation and sequencing. The CGI also offers laboratory-based workshops for NextGen sequencing, genotyping, workflows and data analysis.

The CBC provides computational power and technical support to both academia and industry. These services are available to faculty and students within the University system. Services provided: research collaboration; project design and data analysis consultation; bioinformatics support for NextGen sequencing; software development; and access to computational resources.

Upcoming Events: Visit a complete list at https://bioinformatics.uconn.edu/cbc-workshops/

Workshop: RNA-Seq model systems
Date: May 30-31, 2019
Time: 9:00 am - 5:00 pm
Location: UCHC
Cost: $500

Workshop: Single-cell genomics
Date: July 25-26, 2019
Time: 9:00 am - 5:00 pm
Location: UCHC
Cost: $500

Workshop: Variant Detection
Date: August 22-23, 2019
Time: 9.00 am - 5.00 pm
Location: ESB - Storrs
Cost: $500

The Jackson Laboratory Single Cell Biology Laboratory develops and offers single cell capabilities to UConn investigators. The Single Cell Genomics Center works closely with the JAX-GM Flow Cytometry and JAX-GM Genome Technologies in implementing single cell workflows from tissue sample to sequence and assists in the implementation of single cell-specific bioinformatics workflows with JAX-GM Computational Sciences.

The Microbial Analysis, Resources and Services (MARS) facility supports research specializing in the analysis of microbial samples and high-throughput processing of nucleic acids. Examples include the characterization of microorganisms, sequencing of small genomes, 96-well and 384-well PCR setup or DNA quantification and other automated liquid handling applications. Services are available a la carte, ranging from fee-for-service to unassisted use of the equipment by trained and certified users.

The Proteomics & Metabolomics Facility implements ultra-high performance liquid chromatography (UPLC) coupled to high resolution mass spectrometry (MS) to unambiguously identify proteins, peptides and small molecules in complex biological mixtures. The full-service proteomics platform includes targeted (Parallel Reaction Monitoring) and untargeted quantification and identification of proteins and post-translational modifications using label-free or label-based methods. The user-operated metabolomics platform includes UPLC-MS instrument training for users interested in hands-on analytical experience in untargeted metabolite analysis.