The Center for Immunotherapy and Precision Immuno-Oncology's (CITI) Technological Offerings – Shared Platforms

Isoplexis

New to CITI's Immunomonitoring Lab (IML) is the Isoplexis proteomics platform, a fully automated proteomics workflow designed to understand and characterize differences among immune cells by mapping thousands of cells per sample, which will allow for the elucidation of functional profiles and polyfunctionality among cell subsets. With the IsoSpeak software, same day visualization of data is possible. Data analysis includes high-dimensional single cell mapping, polyfunctionality, and differential quantitation - among others.

Please contact **the IML** (raymanp@ccf.org) for more information.

Archer Immunoverse Technology

In addition to offering TCR sequencing using Adaptive Biotechnology's ImmunoSEQ technology using DNA input, the Discovery Lab has launched Integrated DNA Technologies' Archer Immunoverse Technology to analyze the immune repertoire from RNA input. Immunoverse utilizes an FFPE-optimized strategy for TCR beta/gamma, TCR alpha/delta, and Ig heavy chain sequencing in FFPE archived tissues. It can be used to profile tumor infiltrating lymphocytes and compare TCR diversity in the tumor and in circulation. It provides dynamic visualization and a full data export in order to best answer complex research questions.

For more information regarding project consultation for immune repertoire analysis, please contact **Dr. Raghu Srivastava** (**srivasr@ccf.org**) or **CITI Discovery Lab** (**citidiscovery@ccf.org**).

Bioinformatics Sequencing Workshops 2023

CITI is pleased to offer a series of Computational Genomics workshops. Each two-day sequencing workshop will be preceded by an overview of basic UNIX commands and training on the SLURM (Simple Linux Utility for Resource Management) cluster management and job scheduling system customized for resource management & job processing within the Cleveland Clinic Lerner Research Institute high performance cluster (HPCv2). The UNIX/SLURM/HPCv2 class is highly recommended for those with limited experience using command line interface.

Day 1 of each of the three main sequencing workshops will be based on theory and offered as a hybrid class. Day 2 will largely focus on data analysis and computational processing, which will be offered as either in-person or hybrid. All in-person classes will be in the Cleveland Clinic's Lerner Research Institute, Room NA1-140 from 1-3 PM. Register here.

1. Intro to UNIX / HPCv2 / SLURM: Monday April 10, May 22, & June 12 (hybrid)

2. Single Cell RNA-Sequencing: Day 1 Tues, April 11 (hybrid) & Day 2 Thurs, April 13 (in-person)

3. Bulk RNA-Sequencing: Day 1 Tues, May 23 (hybrid) & Day 2 Thurs, May 25 (in-person)

4. DNA Sequencing: Day 1 Tues June 13 (hybrid) & Day 2 Thurs, June 15 (hybrid)

For more information, please email the CITI Computational Immunology Platform (CIP) Team at citibioinfo@ccf.org.