CRI SEMINAR
Bioinformatics Workshop Series:
10x Genomics scRNA-seq Data Analysis
Speaker: Yan Li, PhD
Wednesday, June 4th | 1:00pm – 3:00pm CST.
Donnelley (BSLC) Room #202 or via Zoom
REGISTER HERE: mycri.cri.uchicago.edu/educations/trainings

Bioinformatics workshop learning series, hosted by CRI, bioinformatics core. This workshop series is dedicated to offering hands-on experience tailored for scRNA-seq data analysis.

Pre-requisite:
- Familiarity with the basic shell commands in Linux, shell scripts, and R.
- Randi Access: if you don't have access to Randi (the CRI's computing cluster), please request it during registration to ensure you're set up to work with the tools during the workshop.

Workshop Outline:
- Introduction to 10x Genomics scRNA-seq
- Analysis workflow overview
- CellRanger implementation for scRNA-seq data preprocessing
- Seurat data QC pre-processing
- DoubletDecon doublets detection
- Seurat normalization, integration analysis
- Seurat clustering analysis

- Seurat UMAP visualization
- Seurat DE analysis

This seminar will take place at Donnelley (BSLC) Meeting Room #202. 924 E 57th, Chicago, IL. also, via Zoom. Registration is required for all attendees, whether you plan to attend in person or via Zoom. Please ensure you register using the provided link by 12pm on Tuesday, June 3rd. Zoom meeting information will be emailed to registrants one day prior to the session. Please note that due to limited capacity, registration may close early if capacity is reached. Participation is open to University of Chicago, UCM, and Pritzker School of Medicine faculty, staff, and students.

About the speaker: Yan Li, the CRI's Associate Director of Bioinformatics, received her PhD in Bioinformatics (December 2013) and dual MS degrees in Statistics and Plant Pathology (August 2009) from the University of Georgia. Prior to joining the CRI in 2014, she worked on multidisciplinary projects using advanced computational tools, statistical methods, and mathematical modeling to address a variety of questions across the biological sciences. Currently, she is focused on developing and applying bioinformatics computational software and pipelines to facilitate the analysis of Next Generation Sequencing (NGS) data. She works closely with faculty and researchers to explore genomics-associated biomedical questions, including the NGS data analysis of RNA-Seq, ChIP-Seq, small RNA-Seq, and exome sequencing.

About the series: Since 2012, the Center for Research Informatics has offered free training sessions for the University of Chicago community in informatics research tools and techniques. Topics include REDCap, clinical data, bioinformatics analysis, data visualization, high performance computing, grant preparation, and more. To hear about upcoming seminars, sign up for our email list at http://cri.uchicago.edu/seminar-series.

Feedback Survey: We value your feedback and would appreciate if you would take a moment to complete our quick survey. Your insights will help us enhance our seminars and ensure they provide the best possible learning experience. Additionally, we welcome your suggestions for future seminar topics and any areas you're interested in exploring further.

Questions? Contact Janaya Lee at janayalee@bsd.uchicago.edu