



# CQS SUMMER INSTITUTE

## AUGUST 2 - 13, 2021

Join us this August for three great courses that will sharpen your quantitative research skills and provide you with methods and tools to deepen your understanding in biostatistics, bioinformatics, and data science. Participation in multiple courses is not required, but highly encouraged.



### Big Data in Biomedical Research

August 2-6 9 AM - 12 PM

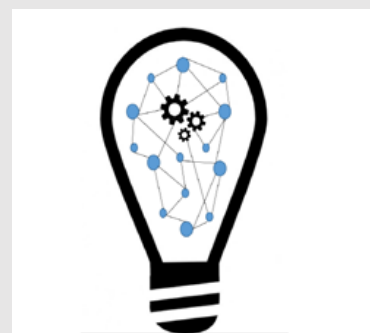
Students will gain practical experience in RNA-seq and single cell RNA-seq analysis, including reads mapping, quantification, differential expression, cell clustering and marker gene identification, and acquire functional interpretation of results. Instruction led by Drs. Yu Shyr and Qi Liu.

### Introduction to Causal Inference

August 2-6 1 PM - 4 PM

This course will introduce fundamentals of causal inference approaches, including an overview of commonly implemented causal inference methods, as well as methods for longitudinal data, followed by miscellaneous topics such as sensitivity analyses and causal inference with survival outcomes.

Instruction led by Dr. Andrew Spieker.



### Regression and Modeling in R

August 9-13 9 AM - 12 PM

This course will cover advanced statistical topics frequently used in the biological and medical research fields. Emphasis will be placed on practical applications of these statistical methods and interpretation of results. Instruction led by Dr. Fei Ye.

