

NYQB'17: MAKING USE OF EMERGING TECHNOLOGIES

Cold Spring Harbor Laboratory, Cold Spring Harbor, New York

August 2, 2017

FINAL PROGRAM

All Sessions are in Grace Auditorium, unless noted otherwise.

Registration

9.00-9.50am Arrival and Registration (*pick-up ID badge at desk*).....**Grace Auditorium**

10.00-11.10am **SESSION 1.** Chair, Adam Siepel (Simons Center for Quantitative Biology / CSHL)

10.00-10.30am Joel Saltz (Stony Brook U.), “Digital Pathology, FDA Approval and Precision Medicine”.

10.30-10.50am Xiaoyin Chen (CSHL), “Interrogating the logic of neuronal projections using in situ barcode sequencing”.

10.50-11.10am Wolfgang Keil (Rockefeller U.), “Quantitative approaches to *C. elegans* post-embryonic development using long-term high-resolution imaging with microfluidics”.

11.10-11.30am **Morning Coffee break**

11.30a-12.40pm **SESSION 2.** Chair, Olga Troyanskaya (Princeton U. and Simons Center for Data Analysis)

11.30a-12.00pm Jane Skok (NYU), “Use of Chromosome conformation capture to investigate the Impact of Endogenous Retroviruses on Nuclear Organization in Mammalian Cells”.

12.00-12.20pm Darach Miller (NYU), “High-throughput Genetics of mRNA Dynamics using FISH, FACS, and Sequencing”.

12.20-12.40pm Meghana Kshirsagar (MSKCC), “Topic models for inferring transcription factor binding profiles jointly from SELEX and ATAC-seq”.

12.40-1.30pm **Lunch** (*vegetarian option available*).....**Blackford Hall**

1.30-2.30pm **Posters Session****Nicholls–Biondi Hall**

2.30-3.40pm **SESSION 3.** Chair, Neville Sanjana (NYGC and NYU)

2.30-3.00pm Itai Yanai (NYU), “Dissecting the embryo with single-cell RNA-Seq”.

3.00-3.20pm Hussein Mohsen (Yale U.), “Deep Neural Networks for Imputation, Clustering, and Embedding of Single-Cell Data”.

3.20-3.40pm Davide Risso (WCMC), “A general and flexible method for signal extraction from single-cell RNA-seq data”.

3.40-4.00pm **Afternoon Coffee break**

4.00-5.10pm **SESSION 4.** Chair, Alex Krasnitz (Simons Center for Quantitative Biology / CSHL)

4.00-4.30pm Yuval Kluger (Yale U.), “Deep Learning Approaches to Remove Technical Sources of Variation in Experimental Single Cell Data and to Classify Cell Subpopulations”.

4.30-4.50pm Kristina Grigaityte (Simons Center for Quantitative Biology / CSHL), “Comprehensive Sequencing Analysis of High-Throughput Single T Cells in Humans: $\alpha\beta$ Chain Pairing and Allelic Inclusion”.

4.50-5.10pm Shilpa N. Kobren (Princeton U.), “Structure-Informed Approach to Discovering Perturbed Interaction Interfaces in Cancer”.

Dinner Reception

5.30-7.00pm **Barbecue on the Beach** (*vegetarian option available*), Wine & Beer will be served.....**CSHL Beach**