

Day 1 (September 15th) QBI workshop on multiplex image analysis and computational pathology

Time	Tentative talk/topic	Speaker
	Day 1 AM session 1 - Keynote session	
8:00 - 9:00 AM	On-site registration opens	
9:00 - 9:30 AM	From pixels to phenotypes: Foundation models for cellular imaging	David Van Valen, Caltech
9:30 - 10:00 AM	CellTune: an integrative software for accurate cell classification in spatial proteomics	Yuval Bussi, Weizman Institute of Science
10:00 - 10:30 AM	Is tissue multiplexing more messier or merrier - introduction and start of the art	Sripad Ram, Pfizer Inc
10:30 - 11:15 AM	AM coffee break	
	Day 1 AM session 2 - mxIF data analysis and insights	
11:15 - 11:45 AM	Spatial modeling and reconstruction of tissue molecular landscapes	Saumyaditya Pyne, UC Santa Barbara
11:45 AM - 12:15 PM	Deciphering cell-to-cell spatial relationships for pathology using spatialQPFs	Xiao Li, Roche
12:15 - 1:00 PM	Panel discussion: Are we overinterpreting spatial patterns?" (Biology vs. artifacts debate)	
1:00 - 2:15 PM	Lunch break	
	Day 1 PM session 1 - virtual staining approaches	
2:15 - 2:45 PM	DeepLIF - deep learning inferred immunofluorescence	Saad Nadeem, MSKCC
2:45 - 3:15 PM	MiniMTI - minimal multiplex tissue imaging enhances biomarker expression prediction from histology	Young Hwan Chang, OHSU
	Panel discussion	
3:15 - 4:00 PM	Panel discussion: Beyond Pretty Pictures: Are Virtual Stains and Molecular Predictions Ready to Change Pathology?"	
4:00 - 4:45 PM	PM coffee break	
	Day 1 PM session 2 - software features demo session	
4:45 - 5:15 PM	QuPath demo	Sara McArdle, La Jolla Institute of Immunology
5:15 - 5:30 PM	qTrace - automated provenance and replay for reproducible QuPath multiplex image analysis	Trevor McKee, McKee Informatics Inc.
5:30 - 5:45 PM	CLASSYFLOW: scalable workflow for dynamic proteomic cell classification in multiplex fluorescence imaging	Raymond Moore, Mayo Clinic

5:45 - 6:00 PM	Multiplex immunofluorescence for cell segmentation of Xenium spatial transcriptomics datasets	Gabriel Ascui, LJL
6:00 - 8:00 PM	Day 1 dinner	

Day 2 (September 16th) QBI workshop on multiplex image analysis and computational pathology

Time	Tentative talk/topic	Speaker
	Day 2 AM session 1 - Multiplexing techniques and workflows	
9:00 - 9:30 AM	Chromogenic multiplexing for clinical applications	Daniel Bauer, Roche
9:30 - 10:00 AM	Standardized processing for spatial multiomic composition	Ethan Xu, LJL
10:00 - 10:30 AM	An open-source workflow for multiplex immunofluorescence acquisition and analysis in nonhuman primates	Ryan Moriarty, Northwestern University
10:30 - 11:15 AM	AM coffee break	
	Day 2 AM session 2 - Novel image analysis approaches	
11:15 - 11:45 AM	From Tissue Structure to Molecular Function: Topology and Multimodal Learning in Digital Pathology	Chao Chen, Stonybrook university
11:45 AM - 12:15 PM	Cell and nuclei segmentation with Poisson representation	Alexandre Cunha, Caltech
12:15 - 12:45 PM	Explicitly Incorporating Overlap in Segmentation Algorithms Improves Spatial Biology Measurements and Prognostic Utility	Calum MacAulay, British Columbia Cancer Research Institute
12:45 - 2:00 PM	Lunch break	
	Day 1 PM session 1 - mxiF tools and computational approaches	
2:00 - 2:30 PM	Enhancing mIF analysis by integrating morphology and coexpression signals	Harry Nunns, NeoGenomics
2:30 - 2:45 PM	Tissue architecture analysis predicts prostate cancer aggressiveness	Willie Wu, British Columbia Cancer Research Institute
2:45 - 3:15 PM	Characterizing cell-type spatial relationships across length scales in spatially resolved omics data	Rafael Peixoto, Johns Hopkins University
3:15 - 3:30 PM	Quantitative analysis of multiplex immunofluorescence extends spatial transcriptomics findings in human pediatric acute severe ulcerative colitis	Jocelin Malone, Allen Institute
3:30 - 3:45 PM	Single-slide multi-omics - integrating xenium spatial transcriptomics and orion protein multiplexing	Simon Goldstein, LJL
3:45 - 4:30 PM	PM coffee break	

4:30 - 5:15 PM	Panel discussion: Are we there yet? Opportunities and challenges in clinical in deploying mxIF in the clinic	
5:15 - 6:00 PM	Evening reception and poster session	
6:00 - 8:00 PM	Day 2 dinner	