

## Next Gen Omics- NGS, Clinical Omics & Diagnostics

### Day 1 Track 1: Advanced Sequencing Technologies

- Novel sequencing methods to empower precision medicine
- Long-read RNA-Seq sequencing methods
- Improving accessibility and lowering costs of genome sequencing
- Shining a spotlight on new sequencing instruments
- Sequencing beyond DNA, including protein sequencing
- Overcoming bottlenecks between library prep and multiplexed sequencing
- Improving sensitivity of sequencing technologies

### Day 1 Track 2: Multi Omics Data Harmonization, Integration & Analysis

#### Part 1: Bioinformatics & Data Analysis

- Tools for analyzing high-throughput sequencing data
- Bioinformatics & computational analysis tools for NGS data
- Large-scale multi omics data analysis
- Integrating multiple datasets

#### Part 2: Next-Generation AI Implementations

- AI/ML toolkits for multi-omics datasets
- Utilizing novel AI algorithms for nextgen omics

### Day 1 Track 3: Digital PCR & Liquid Biopsies

- PCR machines for NGS library preparation
- Advances in analyzing cell-free DNA, CTCs, cell-free RNA, micro-RNA and DNA methylation
- Assessing potential in personalized medicine, targeted drug monitoring, and clinical trials
- Developing next-generation MRD assays

### Day 2 Track 1: Novel Diagnostics for Infectious & Non-Infectious Diseases

- Utilizing omics technologies & sequencing for diagnostics
- CRISPR-based diagnostics approaches
- Using omics to characterize infectious diseases
- Diagnostics case studies from: cardiovascular, metabolic, neurological, respiratory, genetic & rare disease
- Rapid diagnostics development
- Innovative molecular diagnostic methods

### Day 2 Track 2: Applying Multi-Omics in the Clinic

- Proteomics, Metabolomics, Genomics, Lipidomics, Epigenomics
- Clinical utility & adoption of liquid biopsies
- Navigating clinical genomic databases
- Developing standardized and harmonized datasets for clinical research
- Utilizing multi-omics data to ensure clinical utility of tests
- Population Genomics, including epidemiology, clinical trials, variance identification and developing therapeutics for underrepresented populations

## Next Gen Omics- Single Cell

### Day 1 Track 4 – Emerging Single Cell Technologies

- Novel technologies for single cell imaging
- Benchmarking single cell technologies
- Computational tools for single cell analysis
- Proteomics and computational approaches
- Updates from single cell multi-omics
- One pot assays

### Day 2 Track 3 – Bioinformatics for Single Cell Analysis

- Computational tools for single cell technologies
- FAIR-data management & analysis
- Machine learning approaches in single cell bioinformatics
- Ensuring high-quality single-cell data
- Cloud-based bioinformatics platforms

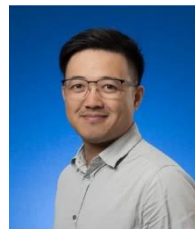
### Day 2 Track 4 – Applications of Single Cell Technologies

- Spatial single cell patterns
- Scalable single cell analysis pipelines
- Dissecting population dynamics using single cell analyses
- Single cell analytic tools for drug discovery & development
- Leveraging single cell analysis & long read sequencing
- Moving single cell tools towards the clinic

### Benefits to Attending

- ✓ **Hear from and meet with the key innovators in genomics.**  
2024 attendees included: Senior Director of Immunology, Revolo Biotherapeutics; Senior Director, AstraZeneca; Director, St Jude Children's Research Hospital
- ✓ **New to 2025! Take a deep dive into data harmonisation, integration and analysis.** Presentations will include tools for analysing high-throughput sequencing data, large-scale multi-omics data analysis and AI/ML toolkits for multi-omics datasets
- ✓ **New to 2025! Discuss digital PCR & liquid biopsies.** Hear from key opinion leaders' in-depth presentations on PCR machines for NGS library preparation, developing nextgen MRD assays and advances in analysing cell-free DNA & CTCs
- ✓ **New to 2025! Advance your understanding emerging single cell technologies** from novel technologies for single cell imaging, through to one pot assays, benchmarking single cell technologies and updates from single cell multi-omics, applying omics in the clinic, bioinformatics for single cell analysis and clinical genomics updates
- ✓ **Join a series of workshops, panel discussions & roundtables.**  
Sessions will include: *'Advanced Multi Omic Data Approaches'*; *'Single Cell Proteomics'* and many more

### NextGen Omics US Speakers 2025 Include:



Tao Yang, Director of Computational Biology, Eli Lilly



Virginia Acha, Associate Vice President – Global Regulatory Policy, MSD



Pascaline Mary, Senior Director, HiFiBio Therapeutics

### Meet Senior Decision Makers

600+ senior attendees at NextGen Omics US from leading research & academic institutions, clinical research institutions, food & nutrition companies as well as major pharmaceutical and biotech companies will attend the event. Delegate job titles include:

Genomics  
Clinical Diagnostics  
Next Gen Sequencing

Single Cell Analysis  
Spatial Omics  
Molecular Bioengineering

### Discover New Solutions

Formal and informal meeting opportunities offer delegates the chance to discuss key solutions with leading service providers. Services to be discussed include:

Library Preparation  
Bioinformatics Tools  
Digital Spatial Profiling

Spatial Gene Expression  
Single Cell Genomics  
Single Cell RNA-Seq



# NEXTGEN OMICS & SPATIAL US 2025

27 - 28 March 2025 | Boston, MA



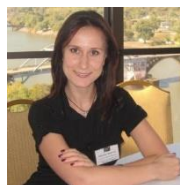
**OMICS**  
BY OXFORD GLOBAL

## Benefits to Attending

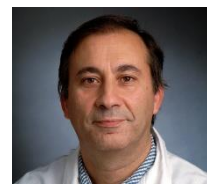
- ✓ **Hear from and meet with the key innovators in spatial multi-omics.** 2024 attendees included: Distinguished University Professor, George Mason University; Senior Scientist, AbbVie; Principal Scientist, Boehringer Ingelheim
- ✓ **New to 2025! Gain invaluable insights into novel multi-omics technologies for spatial genomics & transcriptomics.** Presentations will include translating spatial imaging techniques & approaches into drug development multi-modality processing and spatial transcriptomic databases
- ✓ **New to 2025! Discuss spatial biology for oncology, immunology and neuroscience.** Hear from expert speakers discussing the tumour environment, distribution of immune cells within the tumour and mapping cellular diversity in the brain
- ✓ **New to 2025! Advance your understanding on novel multi-omics technologies for spatial proteomics & metabolomics:** from developing novel technologies for protein analysis through to automated multi-omics workflows, spatial distribution of proteins within cell and distribution of metabolites at spatial resolution
- ✓ **Join a series of workshops, panel discussions & roundtables.** Discussion sessions will include: *'Overcoming the Challenges of Spatial Data Analysis'* & *'Spatial Clinical Design'*

## Omics US Speakers 2024 Included:

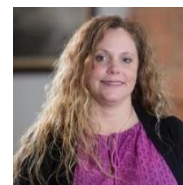
### NextGen Omics & Spatial US Speakers 2025



Aleksandra Markovets  
AstraZeneca



Mike Makrigiorgos  
Dana-Farber Cancer  
Institute



Deidre Dalmas  
GSK

## Spatial Multi-Omics

### Day 1 Track 5: Novel Multi-Omic Technologies: Spatial Genomics & Transcriptomics

- Translating spatial imaging techniques & approaches into drug development
- Transcriptomics: techniques & approaches
- Single-cell transcriptome imaging
- Multi-modality processing
- Utilizing spatial data in biology
- Cell-cell interactions
- Overcoming the challenges in spatial data analysis
- Spatial transcriptomic datasets
- Data access & standardization

### Day 1 Track 6: Spatial Biology for Therapeutic Discovery & Development

- Spatial Biology in the tumour environment
- Understanding tumour heterogeneity
- Distribution of immune cells within the tumour
- Relationship between the immune system and tumour biology to identify new therapeutic targets
- Single-cell genomics and spatial transcriptomics: discovery of novel cell states and cellular interactions in liver physiology and disease biology

### Day 2 Track 5: Novel Multi-Omic Technologies: Spatial Proteomics & Metabolomics

- Next gen proteomics – including developing novel technologies for protein analysis & advancements in quantifying protein expression
- Metabolomics & lipidomics, including high resolution profiling
- Automated multi-omics workflows
- Spatial distribution of proteins within cell
- Distribution of metabolites at spatial resolution

### Day 2 Track 6: Spatial Biology for Therapeutic Discovery & Development

- Spatial techniques to study spatial organization of gene expression patterns during brain development
- Identification of spatially restricted gene expression domains
- Cellular heterogeneity within the developing brain
- Spatial analysis of single fibre cells of the developing ocular lens reveals regulated heterogeneity of gene expression
- Mapping cellular diversity in the brain
- Spatial analysis of brain-immune interactions

## Meet Senior Decision Makers

600+ senior attendees at NextGen Omics US from leading research & academic institutions, clinical research institutions, food & nutrition companies as well as major pharmaceutical and biotech companies will attend the event. Delegate job titles include:

Spatial Genomics  
Spatial Transcriptomics  
Spatial Metabolomics

Spatial Proteomics  
Systems Biology  
Molecular Medicine

Cellular Profiling  
Biostatistics  
Computational Genomics

Translational Medicine  
Spatial Omics  
Translational Science

## Discover New Solutions

Formal and informal meeting opportunities offer delegates the chance to discuss key solutions with leading service providers. Services to be discussed include:

Spatial Imaging Platforms  
Spatial Data Analysis Tools  
Spatial Genomics

Tissue Imaging & Prep  
Single Molecule Imaging  
Cellular Analysis

Proteome Analysis  
Spatial Bioinformatics  
Spatial Profiling

Spatial Mapping  
Spatial Proteogenomics  
Biomarker Profiling

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## 2025 Nextgen Omics US Speakers include

### Pharmaceutical Representatives:

- *(Reserved)* Kris Sachsenmeier, Vice President, Compass Therapeutics
- *(Reserved)* Zora Modrusan, Senior Director of NGS, Genentech
- Anka Ehrhardt, Director, Cell-Based Assays / Analytical Research & Development, Merck
- Tao Yang, Director of Computational Biology, Eli Lilly
- Yuchun Guo, Director of Computational Biology and Machine Learning, Camp4 Therapeutics
- Aleksandra Markovets, Director, AstraZeneca
- Virginia Acha, Associate Vice President – Global Regulatory Policy, MSD
- Wenning Qin, Senior VP, Innovation & Process Development, eGenesis, Inc
- Giorgio Gaglia, Head of Systems Biology, Precision Medicine & Computational Biology, Sanofi
- Rajib Schubert, Group Leader, Roche
- Pascaline Mary, Senior Director, HiFiBiO Therapeutics
- Eugean Jiwanmall, Senior Research Analyst for Medical Policy & Technology Assessment, Independence Blue Cross
- Aridaman Pandit, Senior Principal Research Scientist, Abbvie
- Felix Francis, Sr. Manager, Data Management and Analytics Technology Lead, R&D Technology, Takeda
- Priya S. Chockalingam, VP, Head of Clinical BioAnalytics & Translational Sciences, Beam Therapeutics
- Sourav Choudhury, Lab Head, Sanofi
- Guolin Zhang, Principal Scientist, Sensei Therapeutics
- Young Don Kwak, Principal Scientist II, Novartis Institutes for Biomedical Research
- Dong Dong Lin, Principal Scientist, EMD Serono

### Academic Representatives:

- Robert Green, Professor of Medicine & Director of Genomes To People's BabySeq Project, Brigham and Women's Hospital
- Mike Makrigiorgos, Director of the Medical Physics and Biophysics Division, Dana Farber Cancer Institute
- Gábor Balázs, Henry Laufer Professor, Stony Brook University
- Gang Wu, Director, Center for Applied Bioinformatics, St Jude's Hospital
- Simona Cristea, Head of Genomics Data Science & AI, Dana-Farber Cancer Institute
- Ruslan Sadreyev, Director of Bioinformatics & Assistant Professor, Massachusetts General Hospital / Harvard Medical School
- Yu-Hwa Lo, Professor, UC San Diego Health
- Theodore Perkins, Professor, University of Ottawa
- Brian Cunningham, Professor, University of Illinois
- Nikolai Slavov, Professor, Bioengineering, Founding Director, Parallel Squared Technology Institute
- Winston Hide, Associate Professor of Pathology, Beth Israel Deaconess Medical Center
- Joann Arce, Assistant Professor of Paediatrics, Harvard Medical School
- Xiang Chen, Associate Member, St Jude Children's Research Hospital
- Shuqiang Li, Senior Scientist, Broad Institute
- Wardiya Afshar-Saber, Research Fellow in Neurology, Boston Children's Hospital
- Luca Pinello, Associate Professor of Pathology, Harvard Medical School
- Leonora Balaj, Assistant Professor, Brain Tumor Research Center, Massachusetts General Hospital
- Kalina Hristova, Professor of Materials Science & Engineering Institute, Johns Hopkins University
- Ricardo de Matos Simoes, Instructor, Brigham & Women's Hospital
- Yu-Chi Chen, Bioinformatics Scientist, National Center for Advancing Translational Sciences, NIH

## 2025 Spatial Biology US Speakers Include:

### Pharmaceutical Representatives:

- Deidre Dalmas, Scientific Director, GSK
- Angela Hadjipanayis, Head of Disease Profiling Genomics and Flow Cytometry, PMCB, Sanofi R&D US
- Alina Ainbinder, Scientific Associate Director, Oncology, Takeda
- Colles Price, Scientific Associate Director, Oncology, Takeda
- Maxime Dhainaut, Director, Spatial Functional Genomics, Noetik
- Shoh Asano, Senior Principal Scientist, Pfizer
- Marina Bleck, Principal Scientist, Boehringer Ingelheim
- Zongmei Gao, Senior Scientist II, AbbVie
- Alexandra Tsolias, Scientist II, Histology, Voyager Therapeutics, Inc.
- Alice Wan, Senior Scientist, AbbVie
- Priyank Patel, Senior Scientist, Boehringer Ingelheim
- Jan Schejbal, Senior Scientist, AbbVie
- Danya Ariel Dean, Senior Scientist Metabolomics, Merck
- *(Reserved)* Julien Tessier, Principal Scientist, Sanofi

### Academic Representatives:

- Jasmine Plummer, Director, St. Jude Children's Research Hospital
- Stephen Wong, Department Chair & Centre Director Houston Methodist Hospital, Professor at Cornell Medical College
- Jia-Ren Lin, Technical Director of Tissue Imaging, Harvard Medical School
- Lin Wu, Director, Genome Modification Facility, Harvard University
- Elsa Molina, Director, Single-Cell & Spatial Omics Core, Salk Institute for Biological Studies
- Troy McEachron, NIH Distinguished Scholar, Head, Integrated Solid Tumor Biology Section, Pediatric Oncology Branch, National Cancer Institute
- Yasser Riazalhosseini, Associate Professor & Head of Cancer Genomics, McGill University
- Kieran Campbell, Assistant Professor & Group Leader, Samuel Lunenfeld Research Institute, University of Toronto
- Yan Tang, Associate Professor, Principal Investigator, Brigham & Women's Hospital
- Keri Martinowich, Professor, Departments of Psychiatry and Neuroscience, The Johns Hopkins University School of Medicine
- Sammy Ferri-Borgogno, Instructor in the Department of Gynaecologic Oncology and Reproductive Medicine, The University of Texas MD Anderson Cancer Center
- Tien Phan-Everson, Scientist II, Allen Institute
- Jun Wang, Associate Professor, Department of Biomedical Engineering, Stony Brook University, State University of New York
- Kimberly Smythe, Staff Scientist & Laboratory Head, Fred Hutchinson Cancer Research Center
- Allison Herman Stadtman, Investigator, Vascular Aging Biology Unit, Laboratory of Cardiovascular Science, National Institute on Aging, NIH
- *(Reserved)* Jiannis Ragoussis, Head of Genome Sciences, McGill University
- *(Reserved)* William Hwang, Assistant Professor & Group Head, Harvard Medical School

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