# NEXTGEN OMICS SERIES

## Conference Schedule 2023

### NEXTGEN OMICS US

**IN-PERSON**

**In-Person Congress & Exhibition** — **2-Day Event**

- 300+ attendees and 50+ presentations
- 3 events in 1: 8th Annual Next Generation Sequencing, 8th Annual Single Cell Analysis and 6th Annual Genome Editing Congresses to advance genomics research in the US
- Featuring focused discussions, presentations, and networking on multi-omic data integration, single cell & spatial analysis, genome editing in drug discovery & development and novel genome editing technologies
- Featuring a pre-event workshop day:
  - » Workshop 1: Multi Omics Data Integration & Analysis
  - » Workshop 2: Adopting Spatial Technologies
  - » Workshop 3: Novel Genome Editing Technologies

**March 2023**
**Boston, USA**

### SPATIAL BIOLOGY UK

**IN-PERSON**

**In-Person Congress & Exhibition** — **2-Day Event**

- 250+ attendees and 30+ presentations
- 2-day event exploring spatial research: from the application of spatial technologies in biology through to topical updates from spatial genomics, transcriptomics, metabolomics and spatial bioinformatics
- From breakthrough technologies to the latest products and services our congress will bring together leading academic institutions and companies for two days of knowledge sharing, networking and discussions
- Featuring a pre-event workshop day

**April 2023**
**London, UK**

### Single Cell Proteomics Symposium

**Virtual Symposium** — **1-Day Event**

- 200+ attendees and 12+ presentations
- One day meeting on the latest genome editing technologies & techniques
- Bringing together leading companies for a day of discussion, knowledge-sharing and focused networking

**May 2023**
**BST (UTC+1)**

### SPATIAL BIOLOGY US

**IN-PERSON**

**In-Person Congress & Exhibition** — **2-Day Event**

- 300+ attendees and 40+ presentations
- A dedicated 2-day meeting with a focus on spatial genomics technologies & techniques, data analysis and therapeutic applications
- Designed specifically for the US market, we are bringing together spatial experts, researchers and scientists for participating in focused discussions, workshops and give presentations that mirror the current challenges and future opportunities of the spatial biology market
- Featuring a pre event workshop day

**June 2023**
**Boston, USA**

### SPATIAL BIOLOGY EUROPE

**IN-PERSON**

**In-Person Congress & Exhibition** — **2-Day Event**

- 200+ attendees and 30+ presentations
- 2-day event focusing on the latest innovations in spatial research & profiling as well as the latest developments in pushing spatial technologies to the clinic
- Bringing together leaders in spatial biologics, technologies, profiling and bioinformatics

**September 2023**
**Netherlands**

### NEXTGEN OMICS UK

**IN-PERSON**

**In-Person Congress & Exhibition** — **2-Day Event**

- 500+ attendees and 100+ presentations
- Our established genomics event will be returning to London this autumn featuring the 15th Annual Next Generation Sequencing & Clinical Diagnostics, 10th Annual Single Cell Analysis, 8th Annual Genome Editing and 4th Annual Digital PCR Congresses
- From clinical genomics updates and single cell analysis current & emerging tools, through to genome editing techniques for assessing specificity for on and off targets and applications of digital PCR in oncology, this is the event to attend this fall to stay at the forefront of genomics research
- Featuring a pre-event workshop day:
  - » Workshop 1: Multi Omics Data Integration & Analysis
  - » Workshop 2: Adopting Spatial Technologies
  - » Workshop 3: Novel Genome Editing Technologies

**November 2023**
**London, UK**

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

# NextGen Omics US: In-Person

March 2023 | Boston, USA

- 2-day Event
- In-person Congress & Exhibition

**An intensive 2-day meeting that delves into the latest developments in multi omics, single cell analysis and genome editing & a meeting place for experts working within the above highly debated areas. From new and exciting to the latest in products & services, our conference will bring together leading companies for jam-packed days of discussion, knowledge sharing and focused networking.**

## Who will be there?

**300+ VPs, Directors & Senior Managers** from leading pharma & biotech companies and research institutions in the following fields and more:

### NextGen Sequencing

- Clinical Diagnostics Tools
- NGS Data Analysis
- Genome Sequencing
- Molecular Profiling
- NGS Bioinformatic Tools
- DNA Testing
- NGS Sequencing Platforms

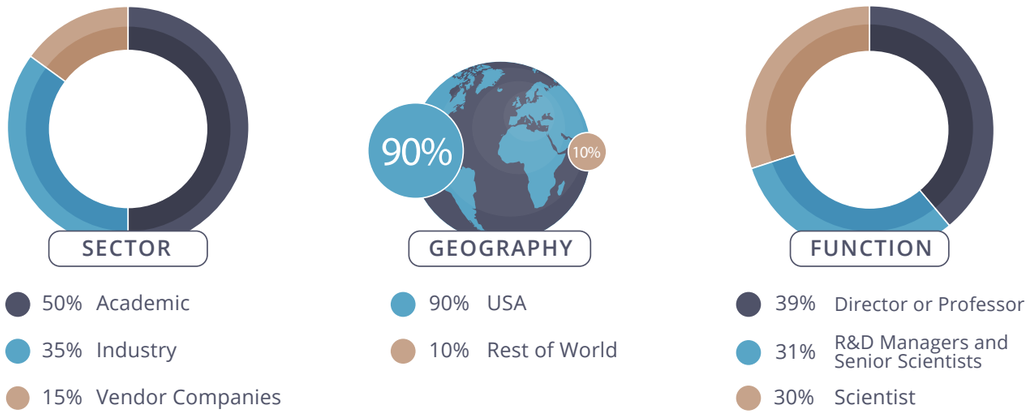
### Single Cell Analysis

- Sample Analysis
- Single Cell Gene Expression
- Single Cell Sequencing
- Single Cell Transcriptomics
- Sample Preparation
- Single Cell Imaging
- Single Cell Sorting

### Genome Editing

- CRISPR Libraries
- Viruses for Drug Screening
- Gene Knock-in/Knock-out
- Genome Sequencing
- Genome Modification
- Detection & Analysis Tools
- Custom CRISPR Vectors

## Previous In-Person Event's delegates in numbers:




## AFTERNOON PRE-EVENT WORKSHOPS

**Workshop 1:** Multi Omic Bioinformatics

**Workshop 2:** Advanced Spatial Analysis Technologies & Platforms

**Workshop 3:** Advanced Single Cell Technologies



## DAY ONE

### Track 1: Clinical Genomics

- Applying genome sequencing to disease prevention
- Clinical applications of polygenic risk
- Reproducibility & validation of variants
- Overcoming the challenges in collecting clinical information
- Delivering clinical diagnostics
- Metagenomics analysis

*Featured workshop: Variant Interpretation*

### Track 2: Novel Spatial Analysis Technologies

- Application of spatial technologies; profiling & molecular imaging
- Cloud-based tools
- Developing novel technologies for transcriptomics, genomics, proteomics, and metabolomics, epigenomics
- Spatial analysis in the tumour microenvironment
- Identification of pathogenic cell types

*Featured workshop: Spatial Imaging*

### Track 3: Single Cell Omics & Multi Omics Analysis: Current & Emerging Tools and Data Analysis

- Deep learning in single cell analysis
- New methods for single cell analysis
- Detecting early cell transformation – methods, tools & strategies
- Analytical technologies for single cell analysis including mass spec imaging
- Single cell bioinformatics
- Technology development
- Multi omics methods – case studies

*Featured workshop: Functional Single Cell Analysis Technologies & Applications*

### Track 4: Developing Novel Genome Editing Technologies & the Application of Different Animal Models

- Advancements in genome editing tools
- New technologies including:
  - » Adeno-associated virus vectors
  - » Next-gen humanized models
  - » Novel editing systems
- Editing for organ transplant
- Epigenomic editing
- Nuclease-free genome editing
- Optimizing genome editing tools for off-target management

*Featured workshop: Using Different Animal Models'*

## DAY TWO

### Track 1: Developments in Sequencing & Multi-Omics Bioinformatics

- Adoption of ML to analyse multi omics data
- Benchmarking bioinformatics pipelines
- Combining multi omics technologies
- Novel methods, approaches and platforms for multi-omics data integration
- Tools for analysing high-throughput sequencing data
- Bioinformatics and computational analysis tools for NGS data

### Track 2: Applications of Spatial in Research & Therapeutics

- Application in various disease areas:
  - » Neurobiology
  - » Oncology
  - » Cardiovascular diseases
  - » Infectious diseases
- Spatial research with treated samples
- Treatment response & resistance mechanisms

### Track 3: Applications of Single Cell Analysis in the Clinic

- Clinical perspectives of single cell sequencing
- Clinical applicability of single cell analysis in clinical trials
- Overcoming challenges in sample prep & different sample prep methods
- Genomic markers in clinical diagnostics
- Single cell analytic tools for drug discovery & development

### Track 4: Therapeutic Genome Editing and Editing in Pharma Discovery & Development

- Genome editing as a therapeutics approach in pharma
- Safety of genome editing in therapeutics & genotoxicity
- Knock-in and expression of transgene cargos for NGS cell-based medicines
- Gene-edited cell therapy
- Full human gene-replacement models of neurodegenerative conditions

# Spatial Biology UK: In-Person

April 2023 | London, UK


- 2-day Event
- In-Person Congress & Exhibition

Join leaders, experts and researchers at our Spatial Biology UK Congress, connecting global academic & research organisations as well as pharma representatives for high-level discussions on the latest innovations in spatial research & technologies. Forward looking visionary leaders will discuss the current state of the industry, market trends and future growth areas aiding the application of spatial technologies in the clinic.

## Agenda at a Glance

### Spatial Biology UK: In-Person

#### DAY ONE

**Track 1: Spatial Biology, Spatial Genomics and Multi-Omics Techniques and Approaches**

- Translating spatial imaging techniques & approaches into clinics
- Transcriptomics & metabolomics: techniques & approaches
- Spatial transcriptomics & spatial genomics techniques/technologies
- Single-cell transcriptome imaging of complex tissues
- Mass spectrometry imaging techniques

**Track 2: Spatial Bioinformatics, Data Analysis, And Modelling**

- Utilizing spatial data in new biology
- Overcoming the challenges in spatial data analysis
- Data integration & visualisation
- Spatial transcriptomic datasets

#### DAY TWO

**Track 1: Spatial in Pharma; Spatial Technologies & Spatial Profiling Towards The Production of Spatial Atlases**

- Spatial atlases/ using model systems
- Toward a human reference atlas: anatomical structures, cell types and biomarkers
- Validating spatially varying biomarkers: opportunities and pitfalls
- Spatial technologies and challenges in the adoption of translational drug research

**Track 2: Applications of Spatial Research & Technologies in Biology**

- Case studies from the areas of:
  - » Cardiovascular development
  - » Regenerative medicine
  - » Oncology
  - » Neurobiology
  - » Infectious diseases
  - » Immunological diseases
- Toxicology studies

## Benefits to Attending

- **Overcome challenges in Spatial Biology Data Analysis** – From Single Cell to Tissue Analysis
- **Learn From Applications On Therapeutic Areas** - Case Studies On Cardiovascular Development, Oncology, Neurobiology
- **Explore the latest Spatial Technologies** And Overcome Challenges In The Adoption Of Translational Drug Research
- **Gain insights into Spatial Multi-Omics applications** for the Tumor micro-environment

## Who will be there?

**250+ VPs, Directors & Senior Managers** from leading pharma & biotech companies and research institutions in the following fields and more:

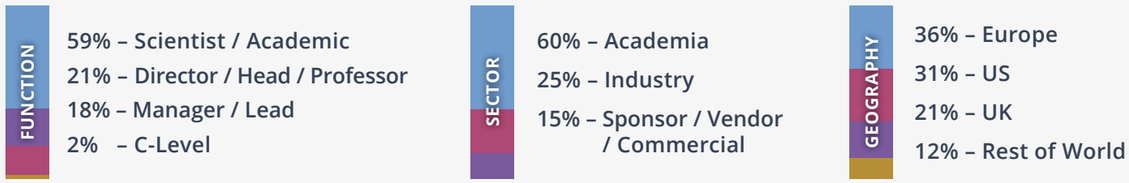
- Spatial Biology
- Spatial Genomics
- Spatial Transcriptomics
- Spatial Metabolomics
- Spatial Proteomics
- Biomedical Engineering
- Single Cell
- Clinical Genomics

**Formal and informal meeting opportunities** offer delegates the chance to discuss key solutions with leading service providers:

- Spatial Genomics Technologies
- Digital Spatial Profiling
- Spatial Data
- Visualization
- Spatial Phenotyping
- Light microscopy
- Cryosectioning

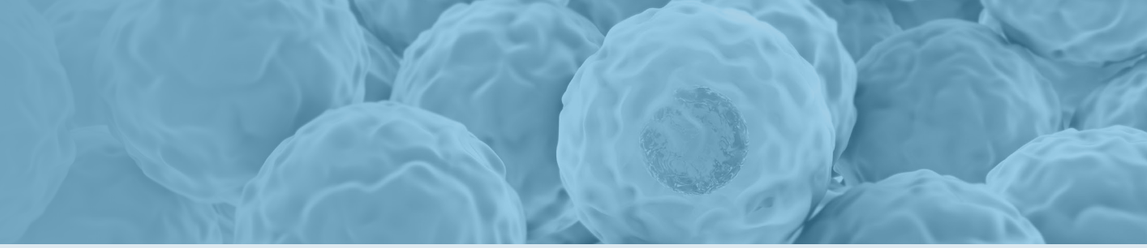
### Previous event's delegates in numbers:

(From 2020's Spatial Biology EU: Online)



# Single Cell Proteomics Symposium

May 2023 | BST (UTC+1)



- **1-day Event**
- **Virtual Symposium**

**An intensive 1-day meeting that delves into single cell proteomics. From new and exciting to the latest in products & services, our online event will bring together over 200 leading companies for a day of discussion, knowledge sharing and focused networking sessions.**

## Agenda at a Glance

### Single Cell Proteomics Symposium

**Topics Covered:**

- Emerging technologies for single cell proteomics
- Overcoming the challenges of current proteomics platforms – sample prep
- Method development
- Applications of single cell proteomics

### Previous Speakers on Single Cell Proteomics included:

AKOS VEGVARI
Project Manager,
**Karolinska Institutet**

ULF LANDEGREN
Professor,
**Uppsala University**

ERWIN SCHOOF
Associate Professor,
**Technical University of Denmark**

CHRISTOPHER ROSE
Senior Scientist
**Genentech**

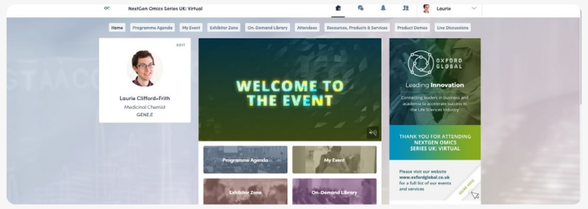
## Benefits to Attending

- **Hear from and meet with the leading figures,** in single cell proteomics representing key academic & research institutions
- **Tap into the current landscape of proteomics technologies,** emerging technological advancements and overcoming the challenges of current proteomics platforms
- **Discuss new application areas** for single cell proteomics

## How It Works

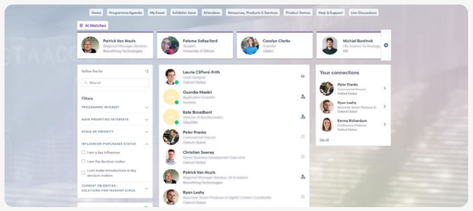
### The Swapcard Platform

Our Symposiums are delivered through Swapcard, our market-leading and highly interactive digital event platform. Alongside the live programme, it has a variety of other features to maximise your event experience, including AI-assisted match-making with other delegates, additional resource such as white papers, exhibitor pages allowing you to connect with leading solution providers and a host of On-Demand content.




### Interactivity

Our digital symposiums are designed to maximise interactivity. Each event features panel discussions facilitated by our expert speakers, and you can also join us for our live Q&As where a panel of speakers are ready to answer any questions you may have. The platform further increases your interactions with other attendees by making it simple to connect, chat, share files and more.



# Spatial Biology US: In-Person

June 2023 | Boston, USA

- 2-day Event
- In-Person Congress & Exhibition

Join leaders, experts and researchers at the Spatial Biology USA Congress, connecting global academic & research organisations as well as pharma representatives for high-level discussions on the latest innovations in spatial research & technologies. Forward looking visionary leaders will discuss the current state of the industry, market trends and future growth areas aiding the application of spatial technologies in the clinic.

## Agenda at a Glance

### Spatial Biology US: In-Person

#### Day One

**Track 1: Spatial Biology, Spatial Genomics and Multi-Omics Techniques And Approaches**

- Multi-Stream digital spatial discovery and profiling techniques & approaches
- Transcriptomics & spatial genomics techniques & approaches
- Spatial transcriptomics & spatial genomics techniques/technologies
- Single-cell transcriptome imaging and cell atlas of complex tissues
- Spatial organization of the genome

**Track 2: Spatial Bioinformatics**

- Utilizing spatial data in new biology
- Overcoming the challenges in spatial data analysis
- Data integration & standardization
- Machine learning approaches

#### Day Two

**Track 1: Spatial Technologies & Spatial Profiling Towards The Production Of Spatial Atlases**

- Spatial atlases / using model systems
- Toward a human reference atlas: anatomical structures, cell types and biomarkers
- Validating spatially varying biomarkers: opportunities and pitfalls
- Spatial technologies and challenges in the adoption of translational drug research

**Track 2: Applications of Spatial Research & Technologies in Biology**

- Case studies from the areas of:
  - » Cardiovascular development
  - » Regenerative medicine
  - » Oncology
  - » Neurobiology
  - » Infectious diseases
  - » Immunological diseases
- Toxicology studies

## Who will be there?

- **Hear from and meet with the leading figures spatial biology,** spatial genomics and multi-omics
- **Discuss the latest innovations in multi-omic digital spatial discovery**, spatial transcriptomics and spatial metabolomics. Presentations will delve into the latest spatial techniques& approaches and single-cell transcriptome imaging updates
- **Discover collaborative solutions to spatial data analysis**. Discuss the latest advancements in utilizing spatial data in new biology and overcoming key analysis challenges
- **Gain comprehensive insights into spatial biology applications** in therapeutics areas. Case study presentations will cover cardiovascular and immunological diseases, oncology and neurobiology
- **Join a series of workshops, roundtable and panel discussions** all pertaining to the latest spatial biology research
- **A high-quality programme devised with the help of our esteemed advisory board.** Presentations will also cover spatial technologies and challenges in the adoption of translation drug research

## Who will be there?

**300+ VPs, Directors & Senior Managers** from leading pharma & biotech companies & research institutions in the following fields & more:

- Spatial Biology
- Spatial Genomics
- Spatial Transcriptomics
- Spatial Proteomics
- Biomedical Engineering
- Single Cell

**Formal and informal meeting opportunities** offer delegates the chance to discuss key solutions with leading service providers:

- Spatial Genomics Technologies
- Digital Spatial Profiling
- Spatial Phenotyping
- Light microscopy
- Cryosectioning

# Spatial Biology Europe: In-Person

September 2023 | Netherlands


- **2-day Event**
- **In-Person Congress & Exhibition**

**Join leaders, experts and researchers at the Spatial Biology Europe: In-Person, connecting global academic & research organisations as well as pharma representatives for high-level discussions on the latest innovations in spatial research & technologies. Forward looking visionary leaders will discuss the current state of the industry, market trends and future growth areas aiding the application of spatial technologies in the clinic.**

## Agenda at a Glance

### Spatial Biology Europe: In-Person

**Track 1: Spatial Biology, Spatial Genomics and Multi-Omics Techniques and Approaches**

- Translating spatial imaging techniques & approaches into clinics
- Transcriptomics & metabolomics: techniques & approaches
- Spatial transcriptomics & spatial genomics techniques/technologies
- Single-cell transcriptome imaging of complex tissues
- Mass spectrometry imaging techniques

**Track 2: Spatial Bioinformatics, Data Analysis, And Modelling**

- Utilizing spatial data in new biology
- Overcoming the challenges in spatial data analysis
- Data integration & visualisation
- Spatial transcriptomic datasets

**Track 1: Spatial in Pharma; Spatial Technologies & Spatial Profiling Towards The Production of Spatial Atlases**

- Spatial atlases/ using model systems
- Toward a human reference atlas: anatomical structures, cell types and biomarkers
- Validating spatially varying biomarkers: opportunities and pitfalls
- Spatial technologies and challenges in the adoption of translational drug research

**Track 2: Applications of Spatial Research & Technologies in Biology**

- Case studies from the areas of:
  - » Cardiovascular development
  - » Regenerative medicine
  - » Oncology
  - » Neurobiology
  - » Infectious diseases
  - » Immunological diseases
- Toxicology studies

## Who will be there?

**200+ VPs, Directors & Senior Managers** from leading pharma & biotech companies and research institutions in the following fields and more:

- Spatial Biology
- Spatial Genomics
- Spatial Transcriptomics
- Biomedical Engineering
- Clinical Genomics
- Spatial Genomics Technologies
- Spatial Gene Expression
- Digital Spatial Profiling
- Spatial Data Visualization
- Spatial Phenotyping
- Light microscopy

**Formal and informal meeting opportunities** offer delegates the chance to discuss key solutions with leading service providers:

- Spatial Genomics Technologies
- Digital Spatial Profiling
- Spatial Data Visualization
- Spatial Phenotyping
- Light microscopy
- Cryosectioning
- Spatial Gene Expression
- Biomedical Engineering
- Spatial Transcriptomics
- Clinical Genomics

### Previous Key Speakers

RONG FAN
**Yale University**

NIELS TOMMERUP
**University of Copenhagen**

KATY BÖRNER
**Indiana University**

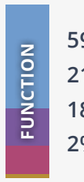
OMER BAYRAKTAR
**Wellcome Sanger Institute**

AMY BERNARD
**Allen Institute**

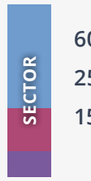
GUOCHENG YUAN
**Dana-Farber Cancer Institute**

### Last years event's delegates in numbers:

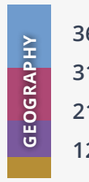
(From 2020's Spatial Biology EU: Online)




59% – Scientist / Academic
21% – Director / Head / Professor
18% – Manager / Lead
2% – C-Level




60% – Academia
25% – Industry
15% – Sponsor / Vendor / Commercial




36% – Europe
31% – US
21% – UK
12% – Rest of World

# NextGen Omics UK: In-Person

November 2023 | London, UK

- **2-day Event**
- **In-person Congress & Exhibition**

**Join over 500 leaders, experts and researchers at the most scientifically engaging event in London delivering breakthrough research, technologies and therapeutic applications across Next Generation Sequencing, Clinical Diagnostics, Single Cell Analysis, Genome Editing and Digital PCR.**

## Who will be there?

**500+ VPs, Directors & Senior Managers** from leading pharma & biotech companies and research institutions in the following fields and more:

**NextGen Sequencing**
- Bioinformatics
- NGS Data Analysis
- Clinical Bioinformatics
- DNA Testing
- Personalised Diagnostics
- Human Genetics

**Genome Editing**
- Genome Engineering
- Functional Genomics
- Gene Regulation
- Gene Therapies
- Cell Biology
- Disease Modelling

**Single Cell Analysis**
- Single Cell Omics
- Circulating Tumour Cells
- Single Cell Imaging
- Flow Cytometry
- Single Cell Data Analysis
- Single Cell Proteomics

**Digital PCR**
- Molecular Genetics
- Cancer Diagnostics
- Molecular Medicine
- Biomarker Discovery
- Personalised Medicine
- Real-Time PCR

**Formal and informal meeting opportunities** offer delegates the chance to discuss key solutions with leading service providers:

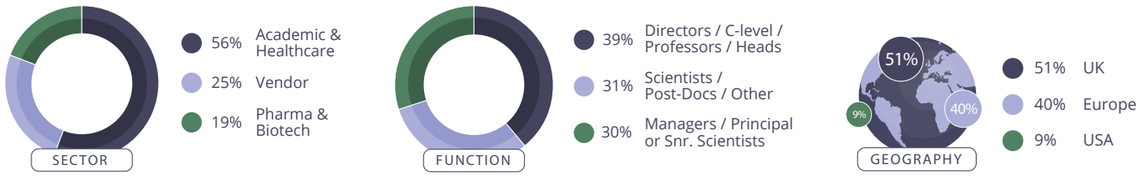
**NextGen Sequencing**
- Clinical Diagnostic Tools
- NGS Analysis Technolgies
- Microfluidic Solutions
- Genome Sequencing
- Molecular Profiling

**Genome Editing**
- CRISPR Libraries
- Custom Oligos
- Viruses for Drug Screening
- Gene Knock-in/Knock-out
- Genome Sequencing

**Single Cell Analysis**
- Microfluidic Solutions
- Sample Analysis
- Single Cell Gene Expression
- Single Cell Sequencing
- Single Cell Genomics

**Digital PCR**
- Diagnostic Development
- Digital PCR Applications
- Customisation
- New Digital PCR Instrumentations
- Multiplexing

### Previous year's delegates in numbers:




## PRE-EVENT FOCUS DAY

### Afternoon Workshops from our Sponsors

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*For Sponsorship Opportunities contact sponsorship@oxfordglobal.co.uk*

## DAY ONE

### Track 1: Clinical Genomics & Diagnostics

- Advances in sample preparation
- Overcoming the challenges in collecting clinical information
- Applying genome sequencing to disease prevention
- Current & emerging infections:
  - » Covid-19
  - » Developing preventive systems for emerging infections
- Delivering clinical diagnostics
- Emerging technologies:
  - » Wearables-based monitoring to integrate with clinical diagnostics for real-time pt monitoring
  - » Direct to consumer
  - » Rapid clinical WGS for critically ill children on intensive care units
  - » Technologies for genomics in low-resource settings

### Track 2: Spatial Multi Omics Technologies & Approaches

- Utilizing spatial technologies, profiling, molecular imaging & case studies from the areas of:
  - » Spatial genomics, transcriptomics, proteomics, epigenomics, metabolomics
- Combining single & spatial techniques
- Multi modalities (combinations of different omics)
- Subcellular profiling technologies

### Track 3: Current & Emerging Tools & Data Analysis

- Emerging technologies for single cells (e.g. imaging, multi omics)
- Optimization of samples, ensuring sample quality, addressing the limitations
- Insights from single cell proteomics
- Deep learning in single cell analysis
- Statistics & bioinformatics for single cells
- Detecting early cell transformation – methods, tools & strategies

## DAY TWO

### Track 1: Genomics Bioinformatics, Data Analysis & Interpretation

- Novel methods, approaches and platforms for genomics data integration
- Tools for analysing high-throughput sequencing data
- Bioinformatic engineering:
  - » Automation linking different workflows together
  - » Cloud – scaling & parametization
- Bioinformatics and computational analysis tools for NGS data
- Tools enabling multi-omic inference (e.g. graph databases)

### Track 2: Applications of Spatial Technologies in Research, Therapeutics & Bioinformatics

- Therapeutics case studies
- Progressing towards clinical use & applications (oncology / immune oncology)
- Spatial data analysis & integration
- Machine learning approaches in spatial bioinformatics

### Track 3: Single Cell Analysis in the Clinic & in Pharma R&D

- Genomic markers in clinical diagnostic
- Mapping the human cell atlas
- Flow cytometry for cell sorting
- Single cell analytic tools for drug discovery & development

*Continued overleaf: **Genome Editing** and **Digital PCR** topic areas*

## DAY ONE (CONTINUED)

### Track 4: Genome Editing Techniques For Assessing Specificity For On & Off Targets

- Advancements in genome editing tools
- New technologies including transposons as tools for genome editing, prime editors, and base editing
- Developing novel CAS systems and alternatives to current systems
- CRISPR tools epigenetic modifications
- Development of different types of animal models
- Delivering CRISPR/Cas-9 into the body (human or animal

### Track 5: Clinical Diagnostics Development – NGS & DPCR

- Integration of digital PCR and NGS, genome editing and other technologies
- Quality control of digital PCR assays and platforms
- Rapid PCR testing for SARS-CoV-2

## DAY TWO (CONTINUED)

### Track 4: Genome Editing Applications in the Clinic & Therapeutics

- In vivo genome editing as a therapeutics approach in pharma
- Target identification & validation
- Implementing gene editing systems for drug screening and development
- Gene-edited Cell Therapy
- Case studies from the clinic
- Therapeutics: neurodegeneration, oncology, blood diseases

### Track 5: dPCR for Therapeutics – Detection, Diagnosis, Monitoring, And Treatment

- Using dPCR to detect infectious diseases including coronaviruses
- Droplet digital PCR technology for monitoring the effectiveness of several immunotherapies
- Bringing digital PCR into clinical and pre-clinical use for infectious disease diagnosis
- Case studies:
  - » Oncology
  - » Infectious Diseases

## Previous Sponsors of NextGen Omics UK include