

Cancer Genomics Programme

Oxford, UK

5 - 7 July 2022



Scientific Programme

Tuesday 5th July 2022

Listed times are in British Summer Time (BST)

12:00 REGISTRATION & WELCOME LUNCH

13:15 CONFERENCE WELCOME

SESSION 1 IMMUNO-GENOMICS

Chair: James Brenton

13:25 **Yardena Samuels (Virtual Presentation)**

Weizmann Institute, Rehovot, Israel

"Deciphering the highly complex cancer immunopeptidome"

Q&A: 13:45-13:55

13:55 **Michael Platten**

DKFZ, Germany

"Immune targeting of driver mutations in glioma"

Q&A: 14:15 - 14:25

14:25 **Aviyah Peri**

Weizmann Institute of Science, Israel

Proffered Paper 1: "Combined presentation and immunogenicity analysis reveals a recurrent RAS.Q61K neoantigen in melanoma"

Q&A: 14:35 - 14:40

14:40 EXHIBITOR INTRODUCTIONS

14:50 COFFEE BREAK & TRADE

15:20 **Johanna Olweus**

Oslo University, Norway

"Cancer immunotherapy: Targeting shared neoantigens with T-cell receptors"

Q&A: 15:40 - 15:50

15:50 **Felix Dietlein**

Boston Children's Hospital, USA

Proffered Paper 2: "Genome-wide identification of somatic mutation events in whole genomes of 19 major cancer types"

Q&A: 16:00 - 16:05

16:05 **Kornelia Polyak (Virtual presentation)**

Dana-Farber Cancer Institute, Harvard Medical School, USA

"Mutated epigenetic regulators in breast cancer"

Q&A: 16:25-16:35

16:35 POSTER SPOTLIGHTS

3 top abstracts presented as 3 minute flash talks

- 16:45 **MEET THE EXPERT**
Mireia Crispin-Ortuzar
 University of Cambridge, UK
 Prof Mireia Crispin-Ortuzar will host an informal session where she will share her own personal and professional experiences of her path to scientific leadership.
- 17:15 **WELCOME RECEPTION**
 Drinks reception with buffet served from 17:35
- 18:15 **POSTER DISCUSSION SESSION 1**

Wednesday 6th July 2022

Listed times are in British Summer Time (BST)

- 08:15 **POSTER VIEWING**
 Posters may be freely viewed
- 08:45 **INDUSTRY SPOTLIGHT - QIAGEN**
Abraham Iwakun
 QIAGEN, UK
 "Introduction to Digital PCR"
- SESSION 2 DNA METHYLATION**
 Chair: Elaine Mardis
- 09:00 **Carlos Caldas**
 CRUK CI, Cambridge, UK
 "DNA methylation landscapes of breast cancer - What have we learned that is new?"
 Q&A: 09:20 - 09:30
- 09:30 **THE EMBO KEYNOTE LECTURE**
Amos Tanay
 Weizmann Institute, Rehovot, Israel
 "From single cells to tissue dynamics in blood ageing and cancer immunity"
 Q&A: 09:50 - 10:00
- 10:00 **Andrew Erickson**
 University of Helsinki, Finland
 Proffered Paper 3: "The spatial landscape of clonal somatic mutations in benign and malignant tissue"
 Q&A: 10:10-10:15
- 10:15 **COFFEE BREAK & TRADE**
- SESSION 3 DATA INTEGRATION**
 Chair: Elaine Mardis
- 10:45 **Kevin Litchfield**
 University College London, UK
 "Non-classical sources of tumour specific antigen in checkpoint inhibitor response"
 Q&A: 11:05 - 11:15
- 11:15 **Mireia Crispin-Ortuzar**
 University of Cambridge, UK

"More is different: radiogenomic data integration to predict treatment response"

Q&A: 11:35 - 11:45

11:45 **POSTER SPOTLIGHTS**

3 top abstracts presented as 3 minute flash talks

11:55 **INDUSTRY SYMPOSIUM - FLUIDIGM (NOW STANDARD BIOTOOLS)**

Stephen Knight

Fluidigm (now Standard BioTools), UK

"Setting the new benchmarks in automated and cost-effective qPCR and NGS assays: Meet the Biomark X and Juno"

12:25 **LUNCH**

13:25 **POSTER DISCUSSION SESSION 2**

SESSION 4 CTDNA/GENOMIC INSTABILITY

Chair: Carlos Caldas

14:55 **James Brenton**

CRUK CI, Cambridge, UK

"Predicting response to treatment for women with high grade serous ovarian carcinoma"

Q&A: 15:15 - 15:25

15:25 **Dan Landau**

Cancer Genomics & Evolutionary Dynamics at WCM/NYGC, New York, USA

"Machine learning guided signal enrichment for ultrasensitive plasma tumor burden monitoring"

Q&A: 15:45 - 15:55

15:55 **James Black**

UCL Cancer Institute, UK

Proffered Paper 4: "Genomic-transcriptomic evolution in TRACERx Lung Cancer and Metastasis "

Q&A: 16:05-16:10

16:10 **COFFEE BREAK & TRADE**

16:40 **Nitzan Rosenfeld**

University of Cambridge, UK

"Expanding roles of liquid biopsies for cancer diagnostics"

Q&A: 17:00 - 17:10

17:10 **Andrea Degasperi**

University of Cambridge, UK

Proffered Paper 5: "Cancer mutational signatures in the UK population and how to use them"

Q&A: 17:20-17:25

17:25 **MEET THE SCIENTIFIC PROGRAMME COMMITTEE**

Carlos Caldas, James Brenton, Elaine Mardis, Yardena Samuels

Our esteemed Scientific Programme Committee will come together to each provide insight into their personal and professional experiences of their routes into scientific leadership.

19:30 **CONFERENCE DINNER**

Optional ticketed dinner

Thursday 7th July 2022

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- 08:15 **POSTER VIEWING**
Posters may be freely viewed
- 08:45 **INDUSTRY SPOTLIGHT - THERMO FISHER SCIENTIFIC**
Elena Guerini Rocco
European Institute of Oncology IRCCS, Milan, Italy
"Characterization of Breast Cancer Immune Microenvironment: Focus on DCIS and Cancers During Pregnancy"
- SESSION 5 SINGLE CELL/SPATIAL ANALYSIS**
Chair: Carlos Caldas
- 09:00 **Leeat Keren**
Weizmann Institute of Science, Rehovot, Israel
"Unraveling the tumor immune microenvironment by multiplexed imaging"
Q&A: 09:20 - 09:30
- 09:30 **Nicola Aceto - Recorded Talk**
ETH Zurich, Switzerland
"Biology and Vulnerabilities of Circulating Tumor Cells"
- 09:50 **COFFEE BREAK & TRADE**
- 10:30 **Sam Aparicio**
BC Cancer Research Institute, Vancouver, Canada
"Decoding foreground mutational processes and drug resistance at single genome resolution"
Q&A: 10:50-11:00
- 11:00 **Yaara Oren**
Tel Aviv University, Israel
Proffered Paper 6: "Cycling cancer persister cells arise from lineages with distinct programs"
Q&A: 11:10-11:15
- 11:15 **Elaine Mardis**
Institute for Genomic Medicine, Columbus, USA
"Pediatric CNS Malignancies at Single-Cell and Digital Spatial Profiling Resolution"
Q&A: 11:45 - 12:00
- 12:00 **SUMMARY & AWARDS**
- 12:15 **DEPART**