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, Rehovat, 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