

Conference Program

June 28th

17:30 - 17:40 **Opening Remarks**

Charles Swanton (Francis Crick Institute, UK)

17:40 - 19:00 **Keynote**

Chairpersons: Charles Swanton (Francis Crick Institute, UK)

Hiroyoshi Nishikawa (National Cancer Center Research Institute, Japan)

Mechanism of Action and Inflammatory Axis for Air Pollution Induced Non-Small Cell Lung Cancer

Charles Swanton (Francis Crick Institute, UK)

Immune-genome precision medicine targeting regulatory (Treg) T cells

Hiroyoshi Nishikawa (National Cancer Center Research Institute, Japan)

19:30 - 21:30 **Welcome Party**

June 29th

8:30 - 10:30 **Session 1: Advances in T-cell Biology**

Chairpersons: Nina Bhardwaj (Icahn School of Medicine at Mount Sinai, US)

Yuki Kagoya (Keio University, Japan)

Cancer neoantigen discovery and properties conferring immunity

Nina Bhardwaj (Icahn School of Medicine at Mount Sinai, US)

Cancer Immunotherapy: Beyond Checkpoint Blockade

Jedd Wolchok (Weill Cornell Medicine, Meyer Cancer Center, US)

Enhancing the efficacy and safety of CAR-T cell therapy with a synthetic biology approach

Yuki Kagoya (Keio University, Japan)

Resident memory T cells and role in breast cancer protection and immunotherapies

Sherene Loi (Peter MacCallum Cancer Centre, Australia)

10:30 - 10:40 **Break**

10:40 - 12:10 **Session 2: Premalignancy and its detection**

Chairpersons: Max Diehn (Stanford University, US)

Mamiko Sakata-Yanagimoto (University of Tsukuba, Japan)

Somatic mutation and selection in normal tissues

Inigo Martincorena (Wellcome Sanger Institute, UK)

Intercepting Lung Cancer via a Pre-Cancer Atlas

Avrum Spira (Johnson & Johnson Innovation Center, US)

Immune cells derived from clonal hematopoiesis function as a niche for cancer cells.

Mamiko Sakata-Yanagimoto (University of Tsukuba, Japan)

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12:10 - 12:20 Break

12:20 - 13:20 Luncheon Seminars

13:20 - 13:30 Break

13:30 - 15:00 Poster Discussions

15:00 - 16:30 Session 3: Microbiome and cancer

Chairpersons: Matthew Meyerson (Dana-Farber Cancer Institute, US)
Naoko Ohtani (Osaka Metropolitan University, Japan)

Gut-liver axis-mediated mechanism of obesity-associated hepatocellular carcinoma progression

Naoko Ohtani (Osaka Metropolitan University, Japan)

Impact of the Cancer Microbiome on Cancer Cells and Immune Cells

Matthew Meyerson (Dana-Farber Cancer Institute, US)

Human Fecal Microbiome and Colorectal Cancer

Shinichi Yachida (Osaka University, Japan)

16:30 - 16:50 Break

16:50 - 18:20 Session 4: RNA as a target

Chairpersons: Daichi Inoue (Foundation for Biomedical Research and Innovation at Kobe, Japan)
Nicholas McGranahan (UCL Cancer Institute, UK)

The interplay between the genome and transcriptome during cancer evolution and metastasis

Nicholas McGranahan (UCL Cancer Institute, UK)

Targeting Cis- and Trans-regulations of Pre-mRNA Splicing in Cancer

Akihide Yoshimi (National Cancer Center Research Institute, Japan)

Deciphering the Mechanisms of Cancer Development Driven by Aberrant Splicing Events

Daichi Inoue (Foundation for Biomedical Research and Innovation at Kobe, Japan)

18:20 - 18:30 Break

18:30 - 19:30 Evening Seminars

20:00 - 21:30 Banquet

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8:30 - 10:00 Session 5: Novel targets brought by genomics/epigenomics

Chairpersons: Nada Jabado (McGill University, Canada)

Hiroyuki Mano (National Cancer Center Research Institute, Japan)

Genomic alterations and targeted therapies in lung cancer

Matthew Meyerson (Dana-Farber Cancer Institute, US)

Targeting Oncohistones in Cancer

Nada Jabado (McGill University, Canada)

Discovery of actionable vulnerabilities in scirrhous-type gastric cancer

Hiroyuki Mano (National Cancer Center Research Institute, Japan)

10:00 - 10:20 Break

10:20 - 11:50 Session 6: Revolution in diagnosis and clinical trials

Chairpersons: Trever Bivona (University of California, San Francisco, US)

Hitomi Okuma (National Cancer Center Hospital, Japan)

High resolution views of the evolution of clinical resistance to targeted therapy in lung cancer

Trever Bivona (University of California, San Francisco, US)

Circulating Tumor DNA Analysis for Detection and Characterization of Lung Cancer

Max Diehn (Stanford University, US)

Revolution in Clinical Trials

Hitomi Okuma (National Cancer Center Hospital, Japan)

11:50 - 12:00 Break

12:00 - 13:00 Luncheon Seminars

13:00 - 13:10 Break

13:10 - 14:40 Session 7: Inflammation and cancer

Chairpersons: Lisa Coussens (Oregon Health & Science University, US)

Seishi Ogawa (Kyoto University, Japan)

Regulation of inflammation in anti-cancer immune responses

Osamu Takeuchi (Kyoto University, Japan)

Identifying Immune Vulnerabilities In Solid Tumors

Lisa Coussens (Oregon Health & Science University, US)

Evolutionary histories of breast cancer using phylogenetic analysis

Seishi Ogawa (Kyoto University, Japan)

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14:40 - 15:00 Break

15:00 - 16:30 Session 8: Computational biology

Chairpersons: Elana Fertig (Johns Hopkins University, US)

Dean Ho (National University of Singapore, Singapore)

Medicine Made For You

Dean Ho (National University of Singapore, Singapore)

Forecasting Pancreatic Carcinogenesis Through Spatial Multi Omics

Elana Fertig (Johns Hopkins University, US)

Inferring cell state dynamics dependent on tumor microenvironments

Yasuhiro Kojima (National Cancer Center Research Institute, Japan)

16:30 - 16:40 Closing Remarks

Hiroyoshi Nishikawa (National Cancer Center Research Institute, Japan)