

12th AACR-JCA Joint Conference
Breakthroughs in Cancer Research: Translating Knowledge into Practice
December 10-14, 2022, Maui, HI, USA

CONFERENCE PROGRAM

Saturday, December 10, 2022

OPENING KEYNOTE SESSION

6:00 p.m.-7:30 p.m.

Monarchy 1-4

Session Cochairs: Antoni Ribas, UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA, and **Masanori Hatakeyama**, Institute of Microbial Chemistry, Tokyo, Japan

- 6:00 p.m. **Introductory Remarks**
Masanori Hatakeyama and Antoni Ribas
- 6:10 p.m. **Reprogramming T Cells with CRISPR to enhance immunotherapy***
Alexander Marson, University of California San Francisco, San Francisco, CA, USA
- 6:50 p.m. ***H. pylori* infection, BRCAness, and gastric cancer***
Masanori Hatakeyama, Institute of Microbial Chemistry, Tokyo, Japan

OPENING RECEPTION

7:30 p.m.-9:00 p.m.

Napili Gardens Lawn, Monarchy 5-7, and Promenade

*An extended abstract for this presentation is available in the Invited Abstracts section of the Proceedings.

Sunday, December 11, 2022

CONTINENTAL BREAKFAST AND NETWORKING ROUNDTABLES

7:00 a.m.-8:00 a.m.

Sunset Terrace

PLENARY SESSION 1: TUMOR MICROENVIRONMENT

8:00 a.m.-9:30 a.m.

Monarchy 1-4

Session Cochairs: Toshikazu Ushijima, Hoshi University, Tokyo, Japan, and **Antoni Ribas**, UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA

- 8:00 a.m. **The aging microenvironment and its impact on tumor progression+**
Ashani T. Weeraratna, Johns Hopkins University, Baltimore, MD, USA
- 8:35 a.m. **The role and mechanism of SASP in tumor microenvironment of obesity-associated liver cancer***
Naoko Ohtani, Osaka Metropolitan University Graduate School of Medicine, Osaka, Japan
- 9:10 a.m. **Mechanisms of neutrophil immune response in the bone metastatic prostate cancer***
Leah M. Cook, University of Nebraska Medical Center, Omaha, NE, USA

COFFEE BREAK

9:30 a.m.-10:00 a.m.

Grand Promenade

PLENARY SESSION 2: CANCER GENOMICS AND CANCER EVOLUTION

10:00 a.m.-12:00 p.m.

Monarchy 1-4

Session Cochairs: Christina Curtis, Stanford University, Stanford, CA, USA, and **Koshi Mimori**, Kyushu University Beppu Hospital, Oita, Japan

- 10:00 a.m. **Extrachromosomal DNA (ecDNA): Cancer's dynamic circular genome**
Paul S. Mischel, Stanford University, Stanford, California
- 10:33 a.m. **Genetic basis of pediatric cancers**
Junko Takita, Kyoto University, Graduate School of Medicine, Kyoto, Japan
- 11:06 a.m. **Genotype to phenotype mapping of tumorigenesis at single cell resolution***
Christina Curtis, Stanford University, Stanford, CA, USA
- 11:39 a.m. **Translating cancer evolutionary insights into clinical practice***
Mariam Jamal Hanjani, University College London Cancer Institute, London, United Kingdom

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+ Presenting virtually

FREE TIME

12:00 p.m.-4:00 p.m.

PLENARY SESSION 3: CANCER IMMUNOLOGY

4:00 p.m.-5:30 p.m.

Monarchy 1-4

Session Cochairs: **Nina Bhardwaj**, The Tisch Cancer Institute, Icahn School of Medicine at Mt. Sinai, New York, New York, and **Masanobu Oshima**, Kanazawa University, Kanazawa, Japan

4:00 p.m. **Regeneration of cytotoxic T lymphocytes from iPS cells: Development of “off-the-shelf T cells” for cell therapy targeting cancer and viral infection**

Hiroshi Kawamoto, Kyoto University, Kyoto, Japan

4:35 p.m. **Properties of tumor antigens determining induction of immunity***

Nina Bhardwaj, The Tisch Cancer Institute, Icahn School of Medicine at Mt. Sinai, New York, NY, USA

5:10 p.m. **Chimeric antigen receptors targeting of truncated O-glycopeptides**

Avery D. Posey, Jr., University of Pennsylvania, Philadelphia, PA, USA

POSTER SESSION A

5:30 p.m.-7:30 p.m.

Monarchy 5-7

Monday, December 12, 2022

CONTINENTAL BREAKFAST AND NETWORKING ROUNDTABLES

7:00 a.m.-8:00 a.m.

Sunset Terrace

PLENARY SESSION 4: CANCER IMMUNOTHERAPY

8:00 a.m.-9:30 a.m.

Monarchy 1-4

Session Cochairs: **Antoni Ribas**, UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA, and **Seiji Yano**, Kanazawa University, Kanazawa, Japan

8:00 a.m. **Immune suppression by regulatory T cells in the tumor microenvironment***

Hiroyoshi Nishikawa, National Cancer Center, Tokyo, Japan

8:35 a.m. **When cancer cells enable an antitumor immune response**

Antoni Ribas, UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA

9:10 a.m. **Clonal evolution in a tumor microenvironment***

Yosuke Togashi, Chiba Cancer Center, Kashiwa, Japan

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COFFEE BREAK

9:30 a.m.-10:00 a.m.
Sunset Terrace

PLENARY SESSION 5: PRECLINICAL MODELS; ORGANOID; GENETIC AND TRANSPLANTATION MODELS

10:00 a.m.-11:30 a.m.
Monarchy 1-4

Session Cochairs: Issay Kitabayashi, National Cancer Center Research Institute, Tokyo, Japan and **Alexander Marson**, University of California San Francisco, San Francisco, CA, USA

- 10:00 a.m. **Modeling pancreatic cancer*+**
David A. Tuveson, Cold Spring Harbor Laboratory Cancer Center; Lustgarten Foundation, Cold Spring Harbor, NY, USA
- 10:35 a.m. **Polyclonal metastasis of genetically and phenotypically distinct intestinal tumor organoids***
Masanobu Oshima, Kanazawa University, Kanazawa, Japan
- 11:10 a.m. **Humanized mouse models for immuno-oncology studies***
Anthony Rongvaux, Fred Hutchinson Cancer Center, Seattle, WA, USA

FREE TIME

11:30 a.m.-4:30 p.m.

PLENARY SESSION 6: EPIGENETICS; CANCER PLASTICITY AND HETEROGENEITY; RNA NETWORKS

4:30 p.m.-5:30 p.m.
Monarchy 1-4

Session Cochairs: Junko Takita, Kyoto University, Kyoto, Japan and **Patrick Tan**, Duke-NUS Medical School, Singapore, Singapore

- 4:30 p.m. **Essential roles of TIP60 in acute myeloid leukemia with NPM mutation***
Issay Kitabayashi, National Cancer Center Research Institute, Tokyo, Japan
- 5:00 p.m. **Dissecting the mechanisms for cancer development caused by aberrant splicing***
Daichi Inoue, Institute of Biomedical Research and Innovation, Kobe, Japan

POSTER SESSION B

5:30 p.m.-7:30 p.m.
Monarchy 5-7

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+ Presenting virtually

Tuesday, December 13, 2022

CONTINENTAL BREAKFAST

7:00 a.m.-8:00 a.m.

Sunset Terrace

PLENARY SESSION 7: CANCER METABOLOMICS

8:00 a.m.-9:30 a.m.

Monarchy 1-4

Session Cochairs: Susan M. Kaech, Salk Institute, La Jolla, CA, USA, and **Naoko Ohtani**, Osaka Metropolitan University Graduate School of Medicine, Osaka, Japan

8:00 a.m. **Targeting NAD biogenesis in lung and prostate neuroendocrine carcinomas***
Nobuhiro Tanuma, Miyagi Cancer Center, Miyagi, Japan

8:35 a.m. **Co-opting immune cells to support cancer progression through metabolic reprogramming**
Susan M. Kaech, Salk Institute, La Jolla, CA, USA

9:10 a.m. **Cancer metabolism within the tumor microenvironments***
Tsuyoshi Osawa, The University of Tokyo, Tokyo, Japan

COFFEE BREAK

9:30 a.m.-10:00 a.m.

Grand Promenade

PLENARY SESSION 8: GENOMIC INSTABILITY

10:00 a.m.-11:00 a.m.

Monarchy 1-4

Session Chair: Yoshinori Murakami, The University of Tokyo, Tokyo, Japan

10:00 a.m. **The labile control of mitotic chromosome segregation underlies chromosomal instability in cancer cells***
Toru Hirota, The Cancer Institute Japanese Foundation for Cancer Research (JFCR), Tokyo, Japan

10:35 a.m. **Maintenance of genome integrity and chemoresistance by BRCA1 tumor suppressor***
Natsuko Chiba, Tohoku University, Miyagi, Japan

FREE TIME

11:00 a.m.-4:00 p.m.

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PLENARY SESSION 9: GENETIC AND ENVIRONMENTAL FACTORS IN CARCINOGENESIS

4:00 p.m.-5:30 p.m.

Monarchy 1-4

Session Cochairs: Melissa B. Davis, Weill Cornell Medicine, New York, NY, USA, and **Tatsuhiko Shibata**, The University of Tokyo, Tokyo, Japan

- 4:00 p.m. **Resolving race vs ancestry in triple negative breast cancer (TNBC) disparities: Differential immunological landscapes***
Melissa B. Davis, Weill Cornell Medicine, New York, NY, USA
- 4:35 p.m. **Molecular assessment of pre-malignant lesions in stomach cancer***
Patrick Tan, Duke-NUS Medical School, Singapore, Singapore
- 5:10 p.m. **Comprehensive analyses of genome and DNA adducts elucidate association between environmental factors and human cancer development***
Yukari Totsuka, National Cancer Center, Tokyo, Japan

POSTER SESSION C

5:30 p.m.-7:30 p.m.

Monarchy 5-7

Wednesday, December 14, 2022

CONTINENTAL BREAKFAST

7:00 a.m.-8:00 a.m.

Sunset Terrace

PLENARY SESSION 10: EARLY DETECTION OF CANCER

8:00 a.m.-9:30 a.m.

Monarchy 1-4

Session Cochairs: Tomoki Todo, The University of Tokyo, Tokyo, Japan, and **John M. Carethers**, University of Michigan, Ann Arbor, MI, USA

- 8:00 a.m. **Allele – environment interplay in Asian gastric cancer**
Shumpei Ishikawa, The University of Tokyo, Tokyo, Japan
- 8:35 a.m. **Fecal and tissue DNA for diagnosis and prognosis of colorectal cancer***
John M. Carethers, University of Michigan, Ann Arbor, MI, USA
- 9:10 a.m. **Exosomal proteins in cancer: Roles in cancer metastasis and biomarker potential***
Ayuko Hoshino, Tokyo Institute of Technology, Tokyo, Japan

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COFFEE BREAK

9:30 a.m.-10:00 a.m.

Grand Promenade

PLENARY SESSION 11: DRUG RESISTANCE AND PRECLINICAL MODELS IN CANCER RESEARCH

10:00 a.m.-11:30 a.m.

Monarchy 1-4

Session Cochairs: Katerina Politi, Yale Cancer Center, New Haven, Connecticut, and **Noriko Gotoh**, Kanazawa University, Kanazawa, Japan

10:00 a.m. **Mechanisms of resistance to systemic therapies in lung cancer**

Katerina Politi, Yale Cancer Center, New Haven, CT, USA

10:35 a.m. ***Drosophila* approaches toward cancer mechanisms and therapeutics***

Masahiro Sonoshita, Hokkaido University, Hokkaido, Japan

11:10 a.m. **Models and strategies to study acral melanoma from Latin American patients***

Patricia A. Possik, Brazilian National Cancer Institute, Rio de Janeiro, Brazil

FREE TIME

11:30 a.m.-4:00 p.m.

PLENARY SESSION 12: NEW TECHNOLOGIES FOR CANCER IMAGING AND OTHER EMERGING TECHNOLOGIES

4:00 p.m.-5:30 p.m.

Monarchy 1-4

Session Cochairs: Toru Hirota, The Cancer Institute Japanese Foundation for Cancer Research (JFCR), Tokyo, Japan, and **Anna M. Wu**, City of Hope, Duarte, CA, USA

4:00 p.m. **Visualizing immune responses using immunoPET***

Anna M. Wu, City of Hope, Duarte, CA, USA

4:35 p.m. **Clinical applications of intraoperative fluorescence imaging to hepatobiliary and pancreatic surgery***

Kenjiro Kimura, Osaka Metropolitan University, Osaka, Japan

5:10 p.m. **Antibody-PET of modulation of cell-surface receptor density to reverse drug resistance in tumors***

Patricia Ribeiro Pereira, Washington University School of Medicine, St. Louis, MO, USA

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