

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Cancer: Aging in the Driver's Seat (C4)

March 27-30, 2022 • Snowbird Resort • Snowbird, UT, USA

Scientific Organizers: Sheila A. Stewart, Judith Campisi, Manuel Serrano and Eiji Hara

Supported by the Directors' Fund

Scholarship Deadline: December 6, 2021 / Abstract Deadline: December 10, 2021 / Discounted Registration Deadline: January 27, 2022

SUNDAY, MARCH 27

Arrival and Registration

MONDAY, MARCH 28

Keynote Address

Judith Campisi, Buck Institute for Research on Aging, USA
Cellular Senescence: How a "Culture Artifact" Gained Respectability as a Driver of Cancer and Aging

Aging in the Tumor Microenvironment

Sheila A. Stewart, Washington University School of Medicine, USA
Age-Related Changes in the Tumor Microenvironment Drive Tumorigenesis

Marco Demaria, European Research Institute for the Biology of Aging, Netherlands
Role of Cellular Senescence in Tumor Progression and Therapy-Induced Side Effects

Ashani T. Weeraratna, Johns Hopkins University, USA
Age and Tumor Initiation, Understanding the Drivers

Derek A. Wainwright, Northwestern University Feinberg School of Medicine, USA
Aging-Dependent Changes in the Brain Stroma Drive Incurable Glioblastoma

Short Talk(s) Chosen from Abstracts

The Aging Immune Response, Cancer Sneaks In

Arne N. Akbar, University College London, UK
Senescent Non Lymphoid Cells Inhibit Immunity in the Skin

Andrea Ablasser, Ecole Polytechnique Fédérale de Lausanne, Switzerland
The Role of cGAS/STING and the Immune Response in Senescence

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 29

Stem Cells, Reprogramming and Cancer, How Is It All Related

Manuel Serrano, Institute for Research in Biomedicine, Spain
Cell States that Drive Reprogramming

Amy J. Wagers, Harvard University, USA
Programming and Reprogramming Stem Cells for Regenerative Medicine

Anne Brunet, Stanford University, USA
Epigenetic and Metabolism Crosstalk, Implications in Aging and Cancer

Short Talk(s) Chosen from Abstracts

Inflammaging, What Does it Mean?

Jennifer Elisseeff, Johns Hopkins University, USA
Impact of Senescence on the Immune System in Wound Healing, Cancer and Immunotherapy

Ana O'Loughlin, Queen Mary University of London, UK
Exosomes and Cytokines in Senescent Cells, how do they Communicate?

Eiji Hara, Osaka University, Japan

Roles and Mechanisms of Cellular Senescence in Inflammation and Cancer

Nathaniel Eames David, Jupiter Bioventures, Inc., USA
Leveraging Anti-Cancer Mechanisms to Target Diseases of Aging
Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, MARCH 30

Paracrine Signaling: What Drives Tumor Progression

Naoko Ohtani, Osaka City University Graduate School of Medicine, Japan

The Molecular Mechanism of Senescence-Associated Secretory Phenotype in Liver Cancer Progression

Tamara Tchkonja, Mayo Clinic, USA
Obesity and Aging and Cancer

David J. Glass, Regeneron Pharmaceuticals, Inc., USA
Age-Related Gene and Signaling Perturbations that Increase the Probability of Oncogenesis

Short Talk(s) Chosen from Abstracts

Targeting the Systemic Environment

Sandra S. McAllister, Brigham & Women's Hospital/Harvard Medical School, USA

Impact of Immunological Age on Breast Cancer Progression and Response to Therapy

Ana Maria Cuervo, Albert Einstein College of Medicine, USA
Selective Autophagy, Eating your Way to Cancer

Pura Muñoz Cánoves, Spanish National Center on Cardiovascular Research, Spain
Muscle Wasting in Aging

Scott W. Lowe, Memorial Sloan Kettering Cancer Center, USA
CarT Cells: Sniffing out the Elusive Senescent Cell

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

THURSDAY, MARCH 31

Departure