

6th International Cell Senescence Association (ICSA) Conference

[Program]

Dec. 12, 2021 day1		Dec. 13, 2021 day2		Dec. 14, 2021 day3		Dec. 15, 2021 day4	
8:00	0	8:00	0	8:00	0	8:00	0
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Scientific Program

Day 1. Sunday, December 12, 2021

15:00-15:15 Opening Remarks
Manuel Serrano (Institute for Research in Biomedicine Barcelona, Spain)

Session 1: Senescence & diseases

Chairs: Manuel Serrano (Institute for Research in Biomedicine Barcelona, Spain)
Masaki Takasugi (Osaka City University Graduate School of Medicine, Japan)

15:15-15:45 S1-01: **Manuel Serrano**
(Institute for Research in Biomedicine Barcelona, Spain)
『Interplay between senescent cells and the adaptive immune system』

15:45-16:00 S1-02: **Ignacio Palmero**
(Short talk) (Instituto de Investigaciones Biomédicas, Spain)
『Investigating the role of senescence in developmental disorders』

16:00-16:30 S1-03: **Clemens Schmitt**
(Charité - Universitätsmedizin Berlin (CVK),
and Max-Delbrück-Center for Molecular Medicine, Germany)
『Virus-induced senescence connects SARS-CoV-2 to severe COVID-19』

16:30-17:00 **Coffee Break**

17:00-17:30 S1-04: **Dmitry V. Bulavin**
(Institute for Research on Cancer and Aging of Nice, INSERM, Université Côte d'Azur, CNRS, France)
『Exploring the 3R senescence rule: Remove and Replace to Rejuvenate』

17:30-17:45 S1-05: **Ryan James Wallis**
(Short talk) (Queen Mary University of London, UK)
『Senescence-associated morphological profiles (SAMPs): An Imaged-based phenotypic profiling method for evaluating the heterogeneity of senescence』

17:45-18:15 S1-06: **Marco Demaria**
(European Research Institute for the Biology of Aging, Netherlands)
『To die or to senesce: the role of PARP1 in determining cell fate and its implication in tissue injury』

18:15-18:30 **Preparation time**

18:30-20:30 **Welcome Reception at 12F Foyer Hall**

Scientific Program

Day 2. Monday, December 13, 2021

Keynote lecture 1

Chair: Tohru Minamino (Juntendo University, Japan)

08:30-09:15 **James L. Kirkland**
 (Mayo clinic, USA)
 『Aging, Cellular Senescence, and Senolytic Drugs: The Path to Translation』

Session 2: **Senolysis**

Chairs: Judith Campisi (Buck Institute for Research on Aging, USA)

Tamotsu Yoshimori (Osaka University, Japan)

09:15-09:45 S2-01: **Paul Robbins**
 (University of Minnesota Medical School , USA)
 『Targeting cellular senescence to extend healthspan and resilience』

09:45-10:00 S2-02: **Koichiro Kawaguchi**
(Short talk) (Research Institute, National Center for Geriatrics and Gerontology, Japan)
 『Senescence-dependent ectodomain shedding of E-cadherin promotes cancer
 metastasis.』

10:00-10:30 **Coffee Break**

10:30-11:00 S2-03: **Judith Campisi**
 (Buck Institute for Research on Aging, USA)
 『Cellular senescence: In search of a happy ending』

11:00-11:15 S2-04: **Yuki Saito**
(Short talk) (Sapporo Medical University, Japan)
 『Fisetin improved depressive behavior in murine lupus by decreasing senescent neural
 cell』

11:15-11:30 S2-05: **Masaki Takasugi**
(Short talk) (Osaka City University, Japan)
 『Comparative study of aging identified novel stress response regulatory
 pathways controlled by HA and CD44』

11:30-12:00 S2-06: **Tohru Minamino**
 (Juntendo University, Japan)
 『Targeting senescent cells for the treatment of lifestyle-related disease』

12:00-12:45 **Luncheon seminar 1**

Chair : Makoto Nakanishi (University of Tokyo, Japan)

Hiroshi Ito (Keio University School of Medicine, Japan)

『Impact of DNA damage/repair and epigenetic alterations on renal aging』

12:45-13:30 Lunch

Poster viewing

13:30-15:00

Session 3: Senescence & Cancer

Chairs: Masashi Narita (Cancer Research UK Cambridge Institute, UK)

Tomonori Matsumoto (Osaka University, Japan)

- 15:00-15:30 S3-01: **Tamotsu Yoshimori**
(Osaka University, Japan)
『Autophagy in Aging』
- 15:30-15:45 S3-02: **Valentin Estevez-Souto**
(Short talk) (Health Research Institute of Santiago de Compostela - Cell Senescence, Cancer and Aging, Spain)
『Dissecting the relative contribution of extracellular vesicles to paracrine senescence during cancer chemotherapy』
- 15:45-16:15 S3-03: **Eric Gilson**
(University Côte d'Azur, France)
『Selective pericentromeric heterochromatin dismantling caused by TP53 activation during senescence』
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16:15-16:45 **Coffee Break**

- 16:45-17:15 S3-04: **Masashi Narita**
(Cancer Research UK Cambridge Institute, UK)
『Senescence spectrum and oncogenic dosage in early tumorigenesis』
- 17:15-17:30 S3-05: **Daniel Muñoz-Espin**
(Short talk) (University of Cambridge, UK)
『Tumour-promoting effects of oncogene and chemotherapy-induced senescence in lung cancer progression: senolytic opportunities』
- 17:30-18:00 S3-06: **Jesus Gil**
(Imperial College London, UK)
『3-deazaadenosine (3DA) alleviates senescence to promote cellular fitness and therapy efficiency』

Meet The Editor

18 : 00-19 : 00

Dr. Christoph Schmitt

(Editor in chief, Nature Metabolism)

Scientific Program

Day 3. Tuesday, December 14, 2021

Session 4: Senescence clearance & disease phenotype

Chairs: Sheila A. Stewart (Washington University School of Medicine in St. Louis, USA)

Akiko Takahashi (Japanese Foundation for Cancer Research, Japan)

- 08:30-09:00 S4-01: **Scott W. Lowe**
(Memorial Sloan Kettering Cancer Center, USA)
『Immune surveillance of senescent cells』
- 09:00-09:30 S4-02: **Sheila A. Stewart**
(Washington University School of Medicine in St. Louis, USA)
『Age-related changes in the tumor microenvironment drive tumor progression』
- 09:30-10:00 S4-03: **Darren J. Baker**
(Mayo Clinic, USA)
『Clearance of p16Ink4a-positive cells delays early-onset lung tumorigenesis』

10:00-10:30 **Coffee Break**

- 10:30-11:00 S4-04: **Jin-Hong Kim**
(Seoul National University, Korea)
『Senescence as an underlying mechanism for cartilage loss and chronic inflammation in osteoarthritis』
- 11:00-11:15 S4-05: **Ricardo Iván Martínez Zamudio**
(Short talk) (Rutgers Cancer Institute of New Jersey, USA)
『Dynamic multiomic profiling reveals oncogene-induced senescence as a transitional cell fate』
- 11:15-11:30 S4-06: **Takahiro Suezawa**
(Short talk) (Graduate School of Medicine, Kyoto University, Japan)
『Cellular senescence in a pulmonary fibrosis model using human pluripotent stem cell-derived alveolar organoids』
- 11:30-12:00 S4-07: **Makoto Nakanishi**
(University of Tokyo, Japan)
『Role of stromal p16-positive cells in cancer progression』

12:00-12:45 **Luncheon seminar 2**

Chair: Naoko Ohtani (Osaka City University, Japan)

Hidekazu Yamada (Kindai University Anti-Aging Center, Japan)

『DNAm clocks and aging clocks』

12:45-13:30 Lunch

Poster viewing

13:30-15:00

Session 5: Senescence and Immunity

Chairs: Andrea Ablasser (Swiss Federal Institute of Technology in Lausanne, Switzerland)

Marta Kovatcheva (Institute for Research in Biomedicine Barcelona, Spain)

- 15:00-15:30 **S5-01: Naoko Ohtani**
 (Osaka City University, Japan)
『The role and the mechanism of SASP in tumor microenvironment of obesity-associated liver cancer』
- 15:30-15:45 **S5-02: Meriem EL OUFY**
(Short talk) (Faculte de Medecine, Vandoeuvre-les-Nancy, France)
『Relationship between bone marrow mesenchymal stromal cells (MSCs) senescence and clinical evolution of AML and MDS patients after hematopoietic stem cells (HSC) transplantation』
- 15:45-16:15 **S5-03: Raffaella Di Micco**
 (San-Raffaele-Telethon Institute for Gene Therapy, Italy)
『Cellular Senescence: an unintended twist for gene and cell therapy applications』
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16:15-16:45 **Coffee Break**

- 16:45-17:15 **S5-04: Andrea Ablasser**
 (Swiss Federal Institute of Technology in Lausanne, Switzerland)
『The cGAS-STING pathway as a driver of aberrant inflammation』
- 17:15-17:30 **S5-05: Christos Kiourtis**
(Short talk) (CRUK Beatson Institute for Cancer Research, UK)
『Inter-organ transmission of hepatocellular senescence via the TGF β signalling pathway』
- 17:30-18:00 **S5-06: Arne Akbar**
 (University College London, UK)
『Altered cellular interactions lead to decreased immunity during ageing』

Scientific Program

Day 4. Wednesday, December 15, 2021

Keynote lecture 2

Chair: Naoko Ohtani (Osaka City University, Japan)

08:30-09:15 **John M. Sedivy**
(Brown University, USA)
『How relevant is cellular senescence to understanding the biology of aging?』

Session 6: Biology of cellular senescence

Chairs: Yasuhiro Yamada (University of Tokyo, Japan)

Katherine M. Aird (University of Pittsburgh School of Medicine, USA)

09:15-09:45 S6-01: **Katherine M. Aird**
(University of Pittsburgh School of Medicine, USA)
『Non-canonical roles of p16 in senescence and cancer』

09:45-10:00 S6-02: **Sarah Saoudaoui**
(Short talk) (Centre de recherche du CHUM, Institut du cancer de Montréal, Canada)
『EXPLORATION OF THERAPY-INDUCES SENESENCE AND ITS
PHARMACOLOGICAL MANIPULATION IN PRECLINICAL OVARIAN
CANCER MODELS』

10:00-10:30 **Coffee Break**

10:30-11:00 S6-03: **Guang-Hui Liu**
(Institute of Biophysics, CAS, China)
『Programming and Reprograming of Aging』

11:00-11:15 S6-04: **Akiko Takahashi**
(Short talk) (Japanese Foundation for Cancer Research, Japan)
『Pericentromeric noncoding RNA induces inflammatory gene expression in cellular senescence』

11:15-11:30 S6-05: **Akimitsu Konishi**
(Short talk) (Gunma University, Japan)
『Modulation of Cellular Senescence by Branched-Chain Amino Acid Metabolism』

11:30-12:00 S6-06: **Yasuhiro Yamada**
(University of Tokyo, Japan)
『Unveiling dynamics of p16 and p21 expression in vivo』

12:00-13:30 **Lunch**

Session 7: Mechanism of Senescence

Chair: Tohru Ishitani (Osaka University, Japan)

Shimpei Kawamoto (Osaka University, Japan)

- 13:30-13:45 (Short talk) **S7-01: Keiko Kono**
(Okinawa Institute of Science and Technology Graduate University, Japan)
『Plasma membrane damage limits replicative lifespan in yeast and induces premature senescence in normal human fibroblasts』
- 13:45-14:15 **S7-02: Emi Nishimura**
(University of Tokyo, Japan)
『The in vivo fate and dynamics of DNA-damaged stem cells in the epidermis』
- 14:15-14:30 (Short talk) **S7-03: Damien Maggiorani**
(Centre de Recherche du CHU Ste-Justine, Canada)
『Targeting senescent cells to improve tumor immunotherapies』
- 14:30-14:45 (Short talk) **S7-04: José Américo Nabuco Leva Ferreira Freitas**
(Sorbonne Université, CNRS, INSERM, IBPS, Biological Adaptation and Ageing, France)
『Metabolic Reprogramming in Cellular Senescence』
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- 14:45-15:15 **Coffee Break**
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- 15:15-15:30 (Short talk) **S7-05: Fabrizio d'Adda di Fagagna**
(IFOM the FIRC Institute of Molecular Oncology, Italy)
『A novel approach to telomere-driven cellular senescence and age-related diseases』
- 15:30-16:00 **S7-06: Eiji Hara**
(Osaka University, Japan)
『Cellular senescence: microbial connections』
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- 16:00-17:15 **General assembly and Poster Award Ceremony**
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- 17:15-18:00 **Travel by bus**
- 18:00-18:30 **Preparation for Gala Dinner**
- 18:30-20:30 **Gala Dinner in Osaka Castle**