

## CURRICULUM VITAE

### **JUDITH CAMPISI**

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#### **Education**

- 1979 Ph.D. State University of New York, Stony Brook (Biochemistry)  
Mentor: Dr Carl Scandella
- 1974 B.A. State University of New York, Stony Brook (Chemistry)

#### **Academic Positions:**

- 1980 - 1984 Postdoctoral Fellow/Instructor, Dana-Farber Cancer Institute; Harvard Univ Medical School  
Mentor: Dr Arthur Pardee
- 1984 - 1989 Assistant Professor, Department of Biochemistry, Boston University School of Medicine
- 1989 - 1990 Associate Professor, Department of Biochemistry, Boston University School of Medicine
- 1990 - Present Senior Scientist, Life Sciences Division, Lawrence Berkeley National Laboratory (LBNL)
- 1992 - 1997 Group Leader, Carcinogenesis & Differentiation, LBNL
- 1994 - 1999 Head, Department of Cell & Molecular Biology, LBNL
- 1999 - 2008 Co-Head, Center for Research and Education on Aging, LBNL and Univ California Berkeley
- 2002 - Present Professor, Buck Institute for Research on Aging
- 2015 - Present Adjunct Professor, University of Southern California

#### **Major Research/Achievement Awards**

- 1979 Postdoctoral Fellowships, American Cancer Society & National Institutes of Health
- 1985 Evangeline Athanas Cancer Research Scholar Award, American Cancer Society
- 1988 Established Investigator of the American Heart Association
- 1995, 2005 MERIT Awards, National Institute on Aging
- 1997 AlliedSignal Award for Research on Aging
- 1998 Senior Scholar Award, Ellison Medical Foundation
- 1999 Glenn Foundation Award, Gerontological Society of America
- 2002 Irving Wright Award of Distinction, American Federation for Aging Research
- 2010 Longevity Prize, IPSEN Foundation, Paris
- 2011 Bennett Cohen Award, University of Michigan
- 2011 Elected fellow, American Association for the Advancement of Science
- 2013 Schober Award, Halle University Hospital, Germany
- 2015 International Prize in Natural Sciences and Medicine, Olav Thon Foundation
- 2015 ICCNS-Springer Award, International CCN Society
- 2018 Lifetime Achievement Award, University of Manchester, UK
- 2018 Elected member, US National Academy of Science

#### **Major Scientific Review and Advisory Positions**

- 1985 - Present Ad hoc Reviewer, Center for Scientific Research, National Institutes of Health
- 1988 - 1992 Biological and Clinical Aging Review Committee, National Institute on Aging
- 1990 - 1991 Biomedical Study Section, California Tobacco-Related Disease Research Program
- 1991 - 2000 Scientific Advisory Committee, California Tobacco-Related Disease Research Program
- 1992 - Present Organizing Faculty, annual NIA Summer Training Course in Aging Research
- 1993 - Present Science Advisory Board, Alliance for Aging Research
- 1994 - 1998 Board of Scientific Counselors, National Institute on Aging
- 1997 President's Panel on Cancer
- 1999 - 2002 National Advisory Council on Aging, National Institutes of Health
- 2000 - 2003 Board of Directors, American Federation for Aging Research
- 2001 - 2014 Ellison Medical Foundation, Initial Review Group
- 2003 - 2013 Co-Chair, American Association for Cancer Research Task Force on Aging and Cancer
- 2003 - 2012 Scientific Advisory Board, Keystone Symposia
- 2003 Science Advisory Member, Max Planck Commission on Gerontology
- 2004 - Present Medical Research Committee, Progeria Research Foundation
- 2005, 2014 National Institute on Aging, Biology of Aging Extramural Program Review Committee
- 2005 American Society for Cell Biology, Program Committee
- 2007 National Academies-Keck Foundation, Future Initiatives (Aging) Steering Committee

2008 - Present Scientific Advisory Board, Biogerontology Research Foundation, UK  
2008 National Institute on Aging, Biology of Aging Summit, Steering Committee  
2008 National Academies, Grand Challenges of an Aging Society, Planning Committee  
2011 - 2017 Steering Committee, National Institute on Aging Intervention Testing Program  
2017 - present Steering Committee, Nat'l Cancer Inst Age-Related Consequences of Cancer and Treatments

### **Editorial Board Memberships**

Aging (2008-present)  
Aging Cell (2002-present)  
Aging & Disease (2010-present)  
Aging Reviews (2018-present)  
Cancer Convergence (2016-present)  
Cell Cycle (2002-present)  
EBioMedicine (2016-present)  
Experimental Cell Research (1991-present)  
Experimental Gerontology (2018-present)  
FASEB Journal (2016-present)  
International Journal of Cancer (2006-2009)  
Journal of Cellular Biochemistry (1991-present)  
Journal of Cellular Physiology (1996-present)  
Journals of Gerontology (1992-1995)  
Mechanisms of Ageing and Development (1999-present)  
Molecular Biology Reports (1996-present)  
Molecular and Cellular Oncology (2014-present)  
Oncoscience (2015-present)  
Oncotarget (2015-present)  
Public Library of Science Biology (PLoS Biol) (2013-2019)  
Rejuvenation Research (1999-present)  
Science of Aging Knowledge Environment (2000-2006)

### **Organizer, Major Conferences and Courses**

1998 Cold Spring Harbor Conference on Genetics of Aging  
1999 Keystone Symposium on Aging: Genetic & Environmental Influences on Life Span  
1999 American Society for Biochemistry & Molecular Biol, Symposium on Cellular Aging and Immortalization  
2002 Keystone Symposium on DNA Helicases, Cancer and Aging  
2006 Cold Spring Harbor Conference on Molecular Genetics of Aging  
2006 NIA Summer Training Course in Experimental Aging Research  
2007 American Association for Cancer Research, Translational Research at the Aging and Cancer Interface  
2008 Cold Spring Harbor Conference on Molecular Genetics of Aging  
2009 NIA Summer Training Course in Experimental Aging Research  
2010 Cold Spring Harbor Conference on Molecular Genetics of Aging  
2012 Progeria Research Foundation, Frontiers in Progeria Research  
2012 NIA Summer Training Course in Experimental Aging Research  
2012 Keystone Symposium on Diseases of Aging  
2012 Cold Spring Harbor Conference on Molecular Genetics of Aging  
2015 NIA Summer Training Course in Experimental Aging Research  
2016 Zing Conference on Cell Fate Diversity in Aging

### **Scientific Founder**

UNITY Biotechnology (co-founders: Jan van Deursen, Mayo Clinic and Daohong Zhou, University of Arkansas)  
See <https://unitybiotechnology.com/>

### **Current basic research support**

1. NIH/NIA, R37 AG009909 Cellular senescence and control of gene expression  
3/01/06 – 6/30/18 Role: PI

This project has been the recipient of two consecutive MERIT awards and is the major grant that funds the fundamental biology of cellular senescence and aging in my laboratory. It continues to explore the molecular and cellular causes of cellular senescence, and the effects of senescent cells on aging phenotypes and age-related pathologies using both mouse models and human cells and tissues. Currently on R56 bridge grant extension.

2. NIH/NIA, P01 AG017242 DNA repair, mutations and cell aging

4/01/14 – 3/31/19 Role: Subproject PI; Program PI: J Vijg, Albert Einstein College of Medicine

This subproject explores the role of somatic mutations and defects in DNA repair in causing cellular senescence and aging phenotypes using human and mouse cell cultures and mouse models.

3. NIH/NIA, T32-AG00266 Training in basic aging research and age-related disease

5/01/17 – 4/30/22 Role: PI; Co-PI: Lisa Ellerby, Buck Institute (no salary as per NIH policy)

This grant provides stipends for 10 postdoctoral fellows per year in >30 laboratories at the Buck Institute for Research on Aging, the Lawrence Berkeley National Laboratory, Stanford University and the University of California Berkeley.

4. NIH/NIA, R56 AG052988 Senescent cells as a source of pro-geronic factors

04/01/17 – 3/31/19 Role: PI; Irina Conboy, co-PI

This bridge grant provides funds to acquire additional preliminary data exploring the role of senescent cells in creating a pro-aging systemic milieu in mice in anticipation of resubmission. Currently on no-cost extension.

5. NIH/NIA, AG051729 Cellular senescence as a mediator of mitochondrial dysfunction-induced aging

10/01/16-- 09-30/21 Role: PI; Martin Brand, co-PI

This proposal will explore how mitochondrial dysfunction induces cellular senescence, a characteristic secretory phenotype and age-related phenotypes and pathologies in human cells and mouse models.

6. SENS Research Foundation Immune modulation of senescent cells.

3/01/17-2/29/19 Role: PI

This project explores the role of two innate immune cell types, natural killer cells and macrophages, in recognizing and killing senescent cells.

## Publications

### Full list of published work as found in My Bibliography:

[http://www.ncbi.nlm.nih.gov/sites/myncbi/1V5a\\_Rnfw5k2/bibliography/43735851/public/?sort=date&direction=ascending](http://www.ncbi.nlm.nih.gov/sites/myncbi/1V5a_Rnfw5k2/bibliography/43735851/public/?sort=date&direction=ascending)

### CITATIONS: [GOOGLE SCHOLAR: Judith Campisi](#)

#### Original Research Articles

Suzuki H, Nishimura Y, Iketani H, Campisi J, Hirashima A, Inouye M, Hirota Y. 1976. A novel mutation that causes a structural change in a lipoprotein in the outer membrane of *Escherichia coli*. J Bact 127:494-2501.

Campisi J, Scandella CJ. 1978. Fertilization-induced changes in membrane fluidity of sea urchin eggs. Science 199:1336-1337.

Campisi J, Scandella CJ. 1980. Bulk membrane fluidity increases after fertilization and partial activation of sea urchin eggs. J Biol Chem 255:5411-5419.

Campisi J, Scandella CJ. 1980. Calcium induces a decrease in membrane fluidity of the sea urchin cortex after fertilization. Nature 286:185-186.

Campisi J, Pardee AB. 1981. Cellular mutations and drug resistance probed by herpes simplex virus. J Cell Physiol 109:469-480.

Campisi J, Medrano EE, Morreo G, Pardee AB. 1982. Restriction point control of cell growth by a labile protein: Evidence for increased stability in transformed cells. Proc Natl Acad Sci USA 79:436-440.

Campisi J, Pardee AB. 1982. An artifact in measurement of S phase initiation and its implications for the kinetics of S phase-specific enzyme activities. Exp Cell Res 140:389-393.

Campisi J, Hafner J, Boorstein RB, Pardee AB 1983. Hereditary orotic aciduria, xeroderma pigmentosum and Lesch-Nyhan syndrome probed by herpes simplex virus: <sup>125</sup>I--Iododeoxycytidine incorporation as an assay for viral growth. J Cell Physiol 114:21-28.

Campisi J, Medrano EE. 1983. Cell cycle perturbations in normal and transformed cells caused by detachment from the substratum. J Cell Physiol 114:53-60.

Boorstein R, Campisi J, Pardee AB. 1983. The study of DNA repair defects using <sup>125</sup>I-Iododeoxycytidine incorporation as an assay for viral growth. Mutation Res 112:85-95.

Campisi J, Gray HE, Pardee AB, Dean M, Sonenshein GE. 1984. Cell cycle control of *c-myc* but not *c-ras* is lost following chemical transformation. Cell 36:241-247.

Campisi J, Morreo G, Pardee AB. 1984. Kinetics of G<sub>1</sub> transit following brief starvation for serum factors. Exp Cell Res 152:459-466.

Campisi J, Pardee AB. 1984. Post-transcriptional control of the onset of DNA synthesis by insulin-like growth factor. Molec Cell Biol 4:1807-1814.

Levine RA, Campisi J, Wang S-Y, Gudas LJ. 1984. Butyrate inhibits the retinoic acid-induced differentiation of F9 teratocarcinoma stem cells. Dev Biol 105:443-450.

Fingerman E, Campisi J, Pardee AB. 1984. A defect in calcium metabolism in Duchenne muscular dystrophy

- fibroblasts: Effects on cellular and viral growth. Proc Natl Acad Sci USA 81:7117-7621.
- Dean M, Levine RA, Campisi J. 1986. *c-myc* regulation during retinoic acid-induced differentiation of F9 cells is posttranscriptional and associated with growth arrest. Molec Cell Biol 6:518-524.
- Dean M, Levine RA, Ran W, Kindy MS, Sonenshein GE, Campisi J. 1986. Regulation of *c-myc* transcription and mRNA abundance by serum growth factors and cell contact. J Biol Chem 261:9161-9166.
- Ran W, Dean M, Levine RA, Henkle C, Campisi J. 1986. Induction of *c-fos* and *c-myc* mRNA by epidermal growth factor and calcium ionophore is cAMP-dependent. Proc Natl Acad Sci USA 83:8216-8220.
- McCaffrey P, Ran W, Campisi J, Rosner MR. 1987. Two independent growth factor-generated signals regulate *c-fos* and *c-myc* mRNA levels in Swiss 3T3 cells. J Biol Chem 262:1442-1445.
- Nepveu A, Levine RA, Campisi J, Greenberg ME, Ziff EB, Marcu KB. 1987. Alternate modes of *c-myc* regulation in growth factor stimulated and differentiating cells. Oncogene 1:243-250.
- Wright TC, Pukac LA, Castellot JJ, Karnovsky MJ, Levine RA, Kim-Park, H-Y, Campisi J. 1989. Heparin suppresses the induction of *c-fos* and *c-myc* mRNA in murine fibroblasts by selective inhibition of a protein kinase C-dependent pathway. Proc Natl Acad Sci USA 86:3199-3203.
- Lu K, Levine RA, Campisi J. 1989. *c-ras-Ha* gene expression is regulated by insulin or insulin-like growth factor and epidermal growth factor in murine fibroblasts. Molec Cell Biol 9:411-3417.
- Seshadri T, Campisi J. 1990. *c-fos* repression and an altered genetic program in senescent human fibroblasts. Science 247:205-209.
- Clement A, Campisi J, Farmer SR, Brody JS. 1990. Constitutive expression of growth-related mRNAs in proliferating and nonproliferating lung epithelial cells in primary culture: Evidence for growth-dependent translational control. Proc Natl Acad Sci USA 87:318-322.
- Levine RA, Seshadri T, Hann SR, Campisi J. 1990. Posttranscriptional changes in growth factor-inducible gene regulation caused by antiproliferative interferons. Cell Regulation 1:215-226.
- Park HY, Campisi J. 1990. Posttranslational regulation of cAMP-dependent protein kinase by phorbol esters in normal and chemically transformed 3T3 fibroblasts. Cancer Res 50:7145-7152.
- Lu K, Campisi J. 1992. *Ras* proteins are essential and selective for the action of IGF-I late in the G1 phase of the cell cycle in BALB/c mouse fibroblasts. Proc Natl Acad Sci USA 89:3889-3993.
- Desprez PY, Roskelley C, Campisi J, Bissell MJ. 1993. Isolation of functional cell lines from a mouse mammary epithelial cell strain: The importance of basement membrane and cell-cell interaction. Molec Cell Differentiation 1:99-110.
- Seshadri T, Uzman A, Oshima J, Campisi J. 1993. Identification of a transcript that is selectively down-regulated in senescent human fibroblasts: Cloning, sequence analysis and regulation of the human L7 ribosomal protein gene. J Biol Chem 268:18474-18480.
- Oshima J, Steinman K, Campisi J, Schlegel R. 1993. Modulation of cell growth, p34/cdc2 and cyclin A levels by SV40 large T antigen. Oncogene 8: 2987-2993.
- Hara E, Yamaguchi T, Nojima H, Ide T, Campisi J, Okayama H, Oda K. 1994. Id-related genes encoding helix-loop-helix proteins are required for G1 progression and are repressed in senescent human fibroblasts. J Biol Chem 269:2139-2145.
- Dimri GP, Campisi J. 1994. Altered profile of transcription factor binding activities during cellular senescence. Exp Cell Res 212:132-140.
- Dimri, GP, Hara E, Campisi J. 1994. Regulation of two E2F-related genes in presenescent and senescent human fibroblasts. J Biol Chem 269:16180-16186.
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- Oshima J, Campisi J, Tannock CA, Sybert VP, Martin GM. 1995. Regulation of *c-fos* in senescing Werner syndrome fibroblasts differs from that observed in senescing fibroblasts from normal donors. J Cell. Physiol 162: 277-283.
- Desprez P, Hara E, Bissell M, Campisi J. 1995. Suppression of mammary epithelial cell differentiation by the helix-loop-helix protein, Id-1. Molec Cell Biol 15:3398-3404.
- Dimri G, Lee, X, Basile G, Acosta M, Scott G, Roskelley C, Medrano EE, Linskens M, Rubelj I, Pereira-Smith O, Peacocke M, Campisi J. 1995. A novel biomarker identifies senescent human cells in culture and aging skin in vivo. Proc Natl Acad Sci USA 92:9363-9367.
- Hara E, Uzman JA, Dimri GP, Nehlin JO, Testori A, Campisi J. 1996. The helix-loop-helix protein Id-1 and a retinoblastoma protein binding mutant of SV40 T antigen synergize to reactivate DNA synthesis in senescent human fibroblasts. Dev Genet 18:161-172.
- Dimri GP, Nakanishi M, Desprez PY, Smith JR, Campisi J. 1996. Inhibition of E2F activity by the p21 inhibitor of cyclin-dependent protein kinases in cells expressing or lacking a functional retinoblastoma protein. Molec Cell Biol 16:2987-2997.
- Chen H, Campisi J, Padmanabhan R. 1996. SV40 large T antigen transactivates the human *cdc2* promoter by inducing a CCAAT-box binding factor. J Biol Chem 271:13959-13967.
- Good LF, Dimri GP, Campisi J, Chen KY. 1996. Regulation of dihydrofolate reductase gene expression and E2F components in human diploid fibroblasts during growth and senescence. J Cell Physiol 168:580-588.

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- Desprez PY, Thomasset N, Lin CQ, Sympson CJ, Bissell MJ, Campisi J. 1998. A novel pathway for mammary epithelial cell invasion induced by the helix-loop-helix protein Id-1. *Molec Cell Biol* 18:4577-4588.
- Huang S, Li B, Gray MD, Oshima J, Mian S, Campisi J. 1998. The premature aging syndrome protein WRN is a 3' to 5' exonuclease. *Nature Genet* 20:114-116.
- Kim SH, Kaminker P, Campisi J. 1999. Tin2, a new regulator of telomere length in human cells. *Nature Genet* 23:405-412.
- Dimri GP, Acosta M, Itahana K, Campisi J. 2000. Regulation of a senescence checkpoint by the E2F1 transcription factor and p14/ARF tumor suppressor. *Molec Cell Biol* 20:273-285.
- Xu W, Haddad MM, Bischof O, Campisi J, Medrano EE. 2000. Regulation of Microphthalmia-associated transcription factor MITF levels by association with the ubiquitin-conjugating enzyme hUBC9. *Exp Cell Res* 255:135-143.
- Xu W, Haddad MM, Angelis K, Shardy DL, Bischof O, Campisi J, Stavenezzer E, Medrano E. 2000. SKI acts as a co-repressor of Smad2 and Smad3 to regulate the response to TGF- $\beta$ . *Proc Natl Acad Sci USA*. 97: 5924-5929.
- Lin CQ, Singh J, Murata K, Itahana Y, Parrinello S, Liang SH, Gillett CE, Campisi J, Desprez P. 2000. A role for Id-1 in the aggressive phenotype and hormone response of human breast cancer cells. *Cancer Res* 60:1332-1340.
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- Bischof O, Kim SH, Irving J, Beresten S, Ellis NA, Campisi J. 2001. Regulation and localization of the Bloom syndrome protein in response to DNA damage. *J Cell Biol* 153:367-380.
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- Krtolica A, Parrinello S, Lockett S, Desprez P, Campisi J. 2001. Senescent fibroblasts promote epithelial cell growth and tumorigenesis: A link between cancer and aging. *Proc Natl Acad Sci USA*. 98:12072-12077.
- Parrinello S, Lin CQ, Murata K, Itahana Y, Singh J, Krtolica A, Campisi J, Desprez PY 2001. Id-1, ITF-2 and Id-2 comprise a network of helix-loop-helix proteins that regulate mammary epithelial cell proliferation, differentiation and apoptosis. *J Biol Chem* 276:39213-39219.
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**Textbook: The Molecular and Cellular Biology of Aging.** 2016. Editors: Jan Vijg, Judith Campisi, Gordon Lithgow. Publisher: Gerontological Society of America, Washington DC.

## Training activities

### Graduate students trained

<u>Name</u>	<u>Degree/year</u>
Wendy Ran	PhD, 1987
Tara Seshadri	PhD, 1990
Kuanghui Lu	PhD, 1990
Junko Oshima	PhD, 1992
Simona Parrinello	PhD, 2005
Jean-Philippe Coppe	PhD, 2007
Adam Freund	PhD, 2010
Bridget Gengler	MS, 2010
Lili Zhou	PhD, 2011
Marco Demaria	PhD, 2012
Kevin Perrott	PhD, 2017
Chandani Limbad	PhD, 2017
Chisaka Kuenemann	PhD, expected 2019

Serban Ciotlos

PhD, expected 2022

### Postdoctoral fellows trained

<u>Name</u>	<u>Last known affiliation</u>
Roy A. Levine	Cornell University, Ithaca NY
Hee-Young (Kim) Park	Boston University Medical School, Boston MA
Annick Clement	Hopital Trousseau, Paris, France
Amlan RayChaudhury	Harvard University Medical School, Boston MA
Ewa Surmacz	Jefferson Cancer Center, Philadelphia PA
Akif James Uzman	University of Houston, Houston TX
Eiji Hara	Osaka University, Osaka, Japan
Goberdhan Dimri	George Washington University, Washington DC
George Basile	Stanford University, Palo Alto CA
Jan Nehlin	Gerontological Research Center, Copenhagen, Denmark
Pierre Desprez	California Pacific Medical Center, San Francisco CA
Claudia Lin	Geron Corp, Menlo Park CA
Oliver Bischof	Pasteur Institute, Paris, France
Koji Itahana	Duke-NUS Medical School, Singapore
Shurong Huang	University of Washington, Seattle WA
Ana Krtolica	StemLifeLine, San Carlos CA
Patrick Kaminker	Human Genome Sciences, Baltimore MD
Baomin Li	University of Southern California, Los Angeles CA
Hiroshi Fujisawa	Nara University, Kyoto, Japan
Albert Davalos	San Francisco State University, San Francisco CA
Sashwati Roy	University of Ohio, Columbia OH
Miguel Rubio	Netherlands Cancer Institute, Amsterdam, Netherlands
Seok-Jin Heo	Children's Hospital Oakland Research Institute, Oakland CA
Christian Beausejour	Ste Justine Hospital Research Center, U Montreal, Montreal, Canada
Young You	University of California, Los Angeles CA
Joshua Goldstein	Novartis Research Foundation, San Diego CA
Francis Rodier	University of Montreal, Montreal, Canada
Dipa Bhaumik	Buck Institute for Research on Aging, Novato CA
Christopher Patil	Broad Institute, Boston MA
Sahn-ho Kim	Henry Ford Health Sciences Research Center, Detroit MI
Arturo Orjalo	Genentech, South San Francisco CA
Peter de Keizer	Erasmus University, Rotterdam, Netherlands
Julie Mangada	Buck Institute Educational Department, Novato CA
Marco Demaria	European Institute for the Biology of Aging, Groningen, Netherlands
Michael Velarde	University of the Philippines Diliman. Philippines
Remi-Martin Laberge	Unity Biotechnology, Brisbane CA
Su Liu	BioMarin, Novato CA
Christopher Wiley	Present
Fatouma Alimirah	Present
Amit Sharma	Present
Abhijit Kale	Present
Jose Lopez-Dominguez	Present
Nate Bastisty	Present
Clare Kim	Present
Nicholas Aguirre	Present
Okhee Jeon	Present

### Recent Invited Scientific Speaking Engagements (since 2015)

#### 2015

Seminar, University of Calgary, Calgary CANADA

Speaker, Beckman workshop on Initiative for Macular Research, Irvine CA

Seminar, Harvard University Medical School, Boston MA

Seminar, University of British Columbia, Vancouver CANADA

Seminar, Baylor College of Medicine, Houston TX

Speaker and Achievement Awardee in Natural and Medical Sciences, Olav Thon Award symposium, Oslo NORWAY

Distinguished Speaker, University of Texas Medical Branch, Galveston TX

Seminar, University of Oklahoma, Oklahoma City OK  
Seminar, University of Pittsburgh Medical School, Pittsburgh PA  
Speaker, University of California NIEHS student and postdoctoral training grant annual symposium, Davis CA  
Speaker, American Association for Cancer Research (AACR): Aging and Senescence symposium, Philadelphia PA  
Speaker, Science in the Theater, Oakland CA  
Speaker, Cell Cycle and Genomic Instability symposium, University of Virginia, Charlottesville VA  
Distinguished Scientist Lecture, German Cancer Research Center, Heidelberg GERMANY  
Speaker, EMBO workshop on Developmental Circuits in Aging, Heraklion GREECE  
Speaker, Glenn Foundation 50<sup>th</sup> anniversary symposium, Santa Barbara CA  
Lecturer on Aging, RAND mini-Med School, Los Angeles CA  
Keynote speaker, European Cell Senescence Association, Santiago de Compostela SPAIN  
Speaker and Scientific Achievement Awardee, International CCN Society, Nice FRANCE  
Speaker, Cell symposium on Cell Death and Immunity, Berkeley CA  
Seminar, University of Texas Southwest Medical Center, Dallas TX

## 2016

Speaker, Transatlantic Conference in Lung Disease, Aging, Lung Injury and Regeneration, Lucerne SWITZERLAND  
Distinguished Scientist Seminar, National Jewish Health, Denver CO  
Speaker, AACR Precision Med Series: Cancer Cell Cycle, Tumor Progression & Therapeutic Responses, Orlando FL  
Speaker, Nature symposium on Cancer as an Evolving and Systemic Disease, New York NY  
Plenary speaker, EMBO symposium on Tumor Microenvironment and Signaling, Heidelberg GERMANY  
Seminar, University of Washington, Seattle WA  
Speaker, Disease Drivers of Aging, New York Academy of Sciences, New York NY  
Speaker, Pfizer 9<sup>th</sup> annual Frontiers Symposium, Boston MA  
Keynote Lecture, Institute for Food Research, Norwich UK  
Seminar, Pasteur Institute, Paris FRANCE  
Participant, Progeria Research Foundation summit meeting, Boston MA  
Seminar, Stanford University Medical School, Stanford CA  
Speaker, Nobel symposium on Progeria, Stockholm SWEDEN  
Speaker, Nobel symposium on Cell Cycle, Stockholm SWEDEN  
Seminar, University of Washington Saint Louis, St Louis MO  
Organizer and Speaker, NCI Workshop on Oncogenic Senescence, Bethesda MD  
Speaker, International Cell Senescence Association, Rebbevot ISRAEL  
Lecturer, RAND Mini-Med School, Los Angeles CA  
Speaker, Center for Animal Disease Models International Symposium, Tokyo JAPAN  
Seminar, Cornell University, Ithaca NY  
Speaker, Rejuvenation Biotechnology Conference, Novato CA  
Speaker, Benzon Conference on Genomic Instability and Neurodegeneration, Copenhagen DENMARK  
Speaker, NIA workshop on Autonomous and Non-autonomous Mechanisms of Aging, Bethesda MD  
Speaker, 16<sup>th</sup> Biennial Conference of the Metastasis Research Society, Chengdu CHINA  
Organizer and Speaker, Zing Conference on Cell Fate Diversity in Aging, Dubrovnik CROATIA  
Speaker, 2<sup>ND</sup> International Conference on Aging and Disease, Palo Alto CA  
Speaker, Cell Press/IPSEN workshop on Biology of Commitment, Phoenix AZ  
Seminar, Yale University, New Haven CT  
Seminar, Georgetown University, Washington DC  
Speaker, American Society for Matrix Biology annual meeting, St Petersburg FLA  
Seminar, Temple University, Philadelphia PA  
Seminar, University of West Virginia, Morgantown WV  
Keynote Speaker, German Society for Aging Research, Ulm GERMANY  
Participant, NIA workshop on Human Longevity, Bethesda MD

## 2017

Speaker, Society of Actuaries, Orlando FL  
Speaker, Initiative for Macular Research, Doheny Eye Institute, Irvine, CA  
Speaker, Genome Dynamics in Neuroscience, Kowloon HONG KONG  
Speaker, Advances in Therapeutic Approaches to Extend Health Span, Scripps, Jupiter FL  
Advisor, Nathan Shock Center, University of Washington, Seattle WA  
Speaker, Workshop on Cancer and Aging, UCLA, Los Angeles CA  
Seminar, University of Alabama, Birmingham AL  
Speaker, Cancer Progress Conference, New York, NY  
Keynote speaker, Society for Reproductive Investigations, Orlando FL

Seminar, University of Pennsylvania, Philadelphia PA  
Speaker, American Association for Cancer Research, Washington DC  
Seminar, Tulane University, New Orleans LA  
Seminar, University of Texas Southwest Medical Center, Dallas TX  
Seminar, University of Minnesota, Minneapolis MN  
Speaker, Stress Response and Genome Integrity, Sendai JAPAN  
Keynote speaker, International Cell Senescence Association, Paris FRANCE  
Speaker, NCI Workshop on Inflammation, Rockville MD  
Speaker, AGE Conference, New York NY  
Speaker, Café Scientifique, Palo Alto CA  
Speaker, Conference on p53 Isoforms, Bergen NORWAY  
Speaker, Glenn symposium, Harvard University, Boston MA  
Public Lecturer, British Society for Research on Aging, Exeter UK  
Speaker, Meeting of the Research Advisory Committee on Gulf War Veterans Illnesses, San Francisco CA  
Speaker, Cold Spring Harbor conference on Cell Death, Cold Spring Harbor NY  
Speaker, 8<sup>th</sup> International meeting on Research on Aging, Halle GERMANY  
Aurbach Lecture, American Society for Bone and Mineral Research, Denver CO  
Keynote speaker, UCSF Center for Musculoskeletal Biology and Medicine retreat, San Francisco CA  
Speaker, British Association for the Study of the Liver, Warwick ENGLAND  
Schmitt lecture, Tufts University Medical School, Boston MA  
Murray Barr Lecture, Western University, London, Ontario CANADA  
Seminar, Brown University, Providence RI  
Seminar, University of Colorado Medical School, Aurora CO  
Speaker, Inflammation, Aging and Disease conference, Stanford CA

**2018 (through June, 2018)**

Seminar, Oregon Health Sciences University, Portland OR  
Speaker, Aging, Proteostasis and Stress Responses, Northwestern University, Chicago IL  
Speaker, 25<sup>th</sup> anniversary meeting of the Seattle Study Club, La Quinta CA  
Speaker, Healthy Ageing conference, Hixton ENGLAND  
Seminar, University of Chicago, Chicago IL  
Dean's seminar, Einstein College of Medicine, New York NY  
Speaker, Keystone symposium on Aging, Inflammation and Immunity, Austin TX  
Speaker, Roche Tucson symposium, Tucson AZ  
Moderator and speaker, Alzheimer's 2018—Moving Forward Blue Ribbon Panel, Hong Kong CHINA  
Speaker, Perspectives on skin cancer prevention, Lausanne SWITZERLAND  
Seminar, German Center for Neurodegenerative Disease, Bonn GERMANY  
Speaker, Keystone symposium on Healthspan and Longevity, Hannover GERMANY  
Speaker, Society for Experimental Biology and Medicine annual meeting, San Diego CA  
Seminar, University of Southern California, Los Angeles CA  
Speaker, Molecular hallmarks of aging, CNIO, Madrid SPAIN  
Keynote and Achievement award speaker, Skin aging, University of Manchester, Manchester UK  
Speaker, American Thoracic Society annual meeting, San Diego, CA  
Memorial Lecture, University of North Carolina, Chapel Hill NC  
Proctor & Gamble Lectureship, University of Cincinnati, Cincinnati OH  
Keynote lecture, 3<sup>rd</sup> Australian Conference on the Biology of Aging, Brisbane AUSTRALIA  
Speaker/Moderator, International Cell Senescence Association meeting, Montreal CANADA