

# CURRICULUM VITAE

## JOHN MICHAEL SEDIVY

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## CURRICULUM VITAE

### JOHN MICHAEL SEDIVY

#### TITLE

Hermon C. Bumpus Chair in Biology  
Professor of Medical Science

Director, Brown University Center on the Biology of Aging

Department of Molecular Biology, Cell Biology and Biochemistry  
Brown University

#### PERSONAL INFORMATION

Born December 4, 1955, Bratislava, Slovakia  
Canadian Landed Immigrant, October 6, 1968  
Canadian Citizen, April 17, 1974  
U.S. Permanent Resident, September 21, 1989  
U.S. Citizen, May 6, 2002  
Married, two children

#### ADDRESS

**Business:** Department of Molecular Biology, Cell Biology and Biochemistry  
Laboratories for Molecular Medicine  
Brown University  
70 Ship Street, Rm. 435  
Providence, RI 02903  
TEL: 401-863-2782 (admin); 401-863-7631 (direct); FAX: 401-863-9653  
e-mail: john\_sedivy@brown.edu

**Home:** 12 Doane Road, Barrington, RI 02806  
TEL (401) 245-4783

#### ACADEMIC DEGREES

B.Sc. 1978 with Honors, Zoology, University of Toronto  
Ph.D. 1985 Microbiology and Molecular Genetics, Harvard University  
Daniel G. Fraenkel, supervisor

#### PROFESSIONAL APPOINTMENTS

1984–1988 Postdoctoral Fellow, Massachusetts Institute of Technology  
Phillip A. Sharp, supervisor  
1988–1993 Assistant Professor, Department of Molecular Biophysics and Biochemistry,  
Yale University

1993–1995	Associate Professor, Department of Molecular Biophysics and Biochemistry, Yale University
1996–1998	Associate Professor, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University
1998–present	Professor, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University
2005–2009	Chair, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University
2006–2009	Director, Center for Genomics and Proteomics, Brown University
2016–present	Director, Brown University Center on the Biology of Aging

## **RESEARCH INTERESTS**

Aging, *MYC* oncogene, cellular senescence, epigenetics, chromatin, mobile genetic elements

## **PROFESSIONAL HONORS AND AWARDS**

1974	Ontario Scholar
1977	New College (University of Toronto) In-course Scholarship
1981	Ryan Foundation (Cincinnati) Fellowship
1984	Medical Research Council (Canada) Postdoctoral Fellowship
1989	March of Dimes Basil O'Connor Starter Scholar
1990	NSF Presidential Young Investigator
1991	Andrew Mellon Award
2007–present	Hermon C. Bumpus endowed chair in Biology
2008–2013	Ellison Medical Foundation Senior Scholar in Aging
2009–2019	NIH MERIT Award
2011–2012	Glenn Award for Research in Biological Mechanisms of Aging
2012–2014	Chair, Cellular Mechanisms of Aging and Development (CMAD) Study Section
2015	Chair, Biology of Aging Gordon Conference

## **PROFESSIONAL SOCIETY MEMBERSHIPS**

Gerontological Society of America  
American Association for Cancer Research

## **SERVICE TO PROFESSION**

### **Study Sections and Grant Reviews**

1994–1997	US Army Breast Cancer Initiative Member, Scientific Advisory Committee Molecular Biology Study Section
1995	National Science Foundation Ad hoc external grant reviewer
1996	American Cancer Society

Ad hoc member, Peer Review Committee  
Developmental Biology Study Section

1996–2001 American Cancer Society  
Member, Peer Review Committee  
Development, Differentiation, and Cancer Study Section

1997 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Human Embryology and Development-2 Study Section (HED-2)

1998 National Institutes of Health  
Member, Scientific Review Group  
Longevity Assurance Genes RFA Study Section (NIA-LAG)

1998 National Institutes of Health  
Member, Scientific Review Group  
Small Business and Innovation Study Section (SBIR-CBY-2)

1999 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Molecular Cytology Study Section (CTY)

1999 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Cell Development and Function Study Section (CDF-2, formerly CTY)

1999 National Institutes of Health  
Member, Program Project (P01) Site Visit Review  
NCI, Jefferson Cancer Center, R. Baserga P.I.

1999 US Army Breast Cancer Initiative  
Member, Scientific Advisory Committee  
Molecular Biology Study Section

2000 National Institutes of Health  
Scientific Review Group  
NIA Nathan Shock Centers of Excellence

2000 US Army Breast Cancer Initiative  
Member, Scientific Advisory Committee  
Molecular Genetics Study Section

2001 US Army Breast Cancer Initiative  
Member, Scientific Advisory Committee  
Molecular Genetics Study Section

2000–2003 National Institutes of Health

- Member, Scientific Review Group  
Cell Development and Function Study Section (CDF-2)
- 2003–2006 National Institutes of Health  
Charter Member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)
- 2005 American Federation for Aging Research  
Member, Scientific Review Group  
AFAR Research Committee
- 2005 American Federation for Aging Research  
Member, Scientific Review Group  
Glenn/AFAR Breakthroughs in Gerontology Initiative
- 2005 National Institutes of Health  
Chair  
Special Emphasis Panel Cellular Mechanisms of Aging and Development  
(ZRG1-CMAD)
- 2005 National Institutes of Health  
Member, Scientific Review Group  
NIGMS P20 Exploratory Center Grants for hES Cell Research
- 2006 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Molecular Genetics C Study Section (MGC)
- 2007 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)
- 2009 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)
- 2009–2014 National Institutes of Health  
Permanent member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)  
Appointed July 1, 2009 for a period of 5 years
- 2012–2014 National Institutes of Health  
Permanent member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)  
Appointed as Chair starting October 2012, for a period of 2 years.
- 2012 National Institutes of Health

- Member, site visit committee for the NCI intramural Mouse Cancer Genetics Program, Frederick, MD
- 2013 Cancer Research UK  
Member, Programme Review Panel
- 2013 National Institutes of Health  
Member, Special Emphasis Panel Scientific Review Group  
Review of P01 application "DNA repair, mutations and cellular aging", J. Vijg P.I.
- 2013 Abramson Cancer Center, University of Pennsylvania  
Member, Basic Science Centers of Excellence (BCE) Review Panel
- 2014 National Institutes of Health  
Member, Special Emphasis Panel Scientific Review Group  
Review of P01 application "DNA repair, mutations and cellular aging", J. Vijg P.I.
- 2014 National Institutes of Health  
Chair, Special Emphasis Panel Scientific Review Group  
Review of P01 application "3D Genome and Nuclear Dynamics in Human Stem Cell Senescence and Biological Aging", T. Pederson P.I.
- 2015 The Wellcome Trust  
Reviewer, Sir Henry Dale Fellowship
- 2017 National Institutes of Health  
Ad hoc member, Scientific Review Group  
Cancer Genetics Study Section (CG)
- 2018 National Institutes of Health  
Chair, Special Emphasis Panel Scientific Review Group  
Review of P01 application "DNA repair, mutations and cellular aging", J. Vijg P.I.
- 2018 National Institutes of Health  
Ad-hoc member, Scientific Review Group  
Cellular Mechanisms of Aging and Development Study Section (CMAD)

### **Meetings Organized or Chaired**

- 1998–present Co-organizer (with Marc Tatar and Stephen Helfand, Brown University),  
Annual Colloquium "Biology of Human Aging" at Brown University
- 1999 Chair, Session on "Mechanisms of Immortality"  
1999 American Society for Biochemistry and Molecular Biology International  
Meeting, San Francisco, CA
- 1999 Chair, Session on "Apoptosis"  
Fifteenth Annual Meeting on Oncogenes and Tumor Suppressors, Frederick, MD

- 2001 Chair, Session on "Apoptosis"  
Seventeenth Annual Meeting on Oncogenes and Tumor Suppressors, Frederick, MD
- 2002 Co-organizer (with Gordon Peters, ICRF London, UK), Banbury Conference on Cellular Immortalization, Cold Spring Harbor Laboratory, NY
- 2007 Chair, Session on "Stem Cells"  
Gordon Research Conference on Oxidative Stress and Disease, Ventura, CA
- 2008 Chair, Session on "Proliferative Homeostasis"  
Biology of Aging Summit, National Institute on Aging, National Institutes of Health, Bethesda, MD
- 2008 Chair, Session on "Cellular Responses – Senescence/Apoptosis/Stress"  
Molecular Genetics of Aging, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
- 2012 Chair, Session on "Cellular Senescence"  
Robert and Arlene Kogod 3rd Annual Conference on Aging, Mayo Clinic, Rochester, MN
- 2013 Chair, NIA Special Workshop on DNA Damage, Repair and Cellular Senescence, Bethesda, MD
- 2013 Organizer and Speaker, Presidential Symposium on the Epigenetics of Aging  
IAGG World Congress of Gerontology and Geriatrics, Seoul, Korea
- 2013 Co-Chair, Gordon Research Conference on the Biology of Aging, Il Ciocco, Italy
- 2013 Chair, Biological Sciences Section Symposium on Cellular Senescence and Inflammation  
Gerontological Society of America Annual Scientific Meeting, New Orleans, LA
- 2014 Chair, NIA Special Workshop on 3D Chromatin and its Interaction with Nuclear Structures in Aging, Bethesda, MD
- 2015 Chair of the Gordon Research Conference on Biology of Aging, July 2015, Sunday River Resort, ME
- 2015 Co-chair of the Cold Spring Harbor Asia Conference on Stem Cells, Aging and Rejuvenation, September 2019, Suzhou, China

### **Editorial Work**

- 2001–2004 *Journal of Molecular Medicine*, Editorial Board Member  
2002–2006 *Aging Cell*, Section Editor  
2003–present *Experimental Cell Research* Editorial Board Member

2006–2011 *Aging Cell*, Co-Editor-in-Chief  
2010–present *Cell Cycle*, Editorial Board Member  
2012–present Aging (Albany), Editorial Board Member  
2012–present *Aging Cell*, Co-Editor-in-Chief and Reviews Editor

### Manuscript Reviews

1988–1998 *Biochemistry, Biochimica et Biophysica Acta, Cell Growth and Differentiation, EMBO Journal, Experimental Cell Research, FASEB Journal, Genetic Analysis, Journal of Biological Chemistry, Molecular and Cellular Biology, Nucleic Acids Research, Oncogene*; count of manuscripts reviewed was not maintained.

1998 4 manuscripts reviewed: *Molecular and Cellular Biology* (2); *Nature Genetics* (2)

1999 20 manuscripts reviewed: *American Journal of Physiology* (1); *Blood* (1); *Cell Growth and Differentiation* (1); *Experimental Cell Research* (1); *Journal of Cell Biology* (1); *Molecular and Cellular Biology* (10); *Nature* (1); *Nature Genetics* (1); *Oncogene* (3)

2000 19 manuscripts reviewed: *Molecular and Cellular Biology* (3); *Nature* (4); *Oncogene* (5); *Proc. Natl. Acad. Sci. USA* (5); *EMBO Journal*. (2)

2001 13 manuscripts reviewed: *Cancer Research* (1); *Cell Growth and Differentiation* (2); *Journal of Virology* (1); *Molecular Biology of the Cell* (1); *Molecular and Cellular Biology* (7); *Nature Medicine* (1)

2002 14 manuscripts reviewed: *Experimental Cell Research* (1); *Immunity* (1); *Journal of Leukocyte Biology* (1); *Molecular and Cellular Biology* (2); *Nature Cell Biology* (1); *Nature Medicine* (1); *Oncogene* (3); *Proc. Natl. Acad. Sci. USA* (1); *Science* (1); *EMBO Reports* (1); *Trends in Cell Biology* (1)

2003 15 manuscripts reviewed: *Cancer Cell* (1); *EMBO Journal* (2); *EMBO Reports* (3); *Experimental Cell Research* (2); *Molecular and Cellular Biology* (4); *Molecular Biology of the Cell* (1); *Proc. Natl. Acad. Sci. USA* (2)

2004 18 manuscripts reviewed: *Cell* (1); *Molecular Cell* (2); *Experimental Cell Research* (5); *Molecular and Cellular Biology* (4); *Proc. Natl. Acad. Sci. USA* (1); *Nature* (1); *Nature Genetics* (1); *Nature Cell Biology* (2); *Nature Reviews Cancer* (1); *Nucleic Acids Research* (1)

2005 5 manuscripts reviewed: *Aging Cell* (1); *Cell* (2); *Journal of Cell Science* (1); *Nature Cell Biology* (1)

2006 11 manuscripts reviewed: *Aging Cell* (1); *Cell* (3); *EMBO Journal* (1); *Journal of Biological Chemistry* (1); *Journal of Cell Biology* (1); *Molecular and Cellular Biology* (2); *Molecular Cell* (1); *Nature* (1)



- 2007 8 manuscripts reviewed: *BMC Bioinformatics* (1); *Cancer Cell* (1); *Cancer Research* (1); *Cell* (1); *Molecular Cell* (2); *Nature Cell Biology* (1); *Nature Genetics* (1)
- 2008 5 manuscripts reviewed: *Cell* (1); *Molecular and Cellular Biology* (1); *Nature Cell Biology* (1); *Leukemia* (1); *Science* (1)
- 2009 3 manuscripts reviewed: *Molecular Cell* (2); *Proceedings of the National Academy of Sciences, USA* (1)
- 2010 5 manuscripts reviewed: *Cancer Cell* (1); *Aging Cell* (1); *Cancer Research* (1); *Sciences* (1); *Trends in Molecular Medicine* (1)
- 2011 4 manuscripts reviewed: *Aging Cell* (1); *PLoS One* (1); *Cancer Research* (1); *Mechanisms of Aging and Development* (1)
- 2012 4 manuscripts reviewed: *Cell* (1), *Molecular Biology of the Cell* (1), *Cell Cycle* (1), *Mechanisms of Aging and Development* (1)
- 2013 8 manuscripts reviewed: *Cancer Cell* (1), *Journal of Cell Biology* (1), *PLoS One* (1), *Oncogene* (1), *Aging Cell* (2), *Science* (1), *Nature Reviews* (1)
- 2014 10 manuscripts reviewed (1 each): *Genome Research*, *Trends in Molecular Medicine*, *PLoS One*, *PLoS Genetics*, *Chromosoma*, *Cell Metabolism*, *Nature Genetics*, *Nature*, *Journal of Proteomics*, *Nucleic Acids Research*
- 2015 13 manuscripts reviewed: *Aging Cell* (3), *Cell* (2), *Developmental Cell*, *Science*, *Cancer Research*, *PLoS One*, *Journal of Clinical Investigation*, *PNAS*, *Genome Biology* (1 each)
- 2016 9 manuscripts reviewed: *Aging Cell* (2), *Cell* (2), *Developmental Cell*, *Molecular Biology of the Cell*, *Nucleic Acids Research*, *Oncogene*, *Science Advances*
- 2017 9 manuscripts reviewed: *Aging Cell Reviews*, *Molecular Cell*, *Scientific Reports*, *Cancer Cell*, *NY Academy of Sciences*, *Cell Metabolism*, *Current Biology*, *Nature Communications*, *Immunity*
- 2018 2 manuscripts reviewed: *Cancer Cell*, *Molecular Cell*

### **Consulting Agreements**

1986-1988 Biogen Inc., Cambridge, MA  
1992-1994 Creative Biomolecules, Hopkinton, MA  
2000-2002 Millenium Pharmaceuticals, Cambridge, MA  
2012-2013 Dicerna Pharmaceuticals, Cambridge, MA

### **Scientific Advisory Boards**

2001-2006 Advanced Cell Technology, Inc., Worcester, MA  
2001-present Biolog, Inc., Hayward, CA  
2002-2003 Harvard Medical School, Boston, MA, "Cell Cycle Regulators of Oral Cancer" Program Project (P01), External Advisory Committee.  
2005-2013 Yale School of Medicine, New Haven, CT, "Molecular Basis of Viral and Cellular Transformation" Program Project (P01), D. DiMaio P.I., External Advisory Committee.  
2007-2012 Women and Infants Hospital, Providence, RI, "COBRE for Perinatal Biology", J. Padbury P.I., External Advisory Committee.  
2009-2013 European Community FP7 Consortium Project MARK-AGE, "Biomarkers of Human Aging", A. Buerkle, P.I., University of Konstanz, Konstanz, Germany, External Advisory Committee.  
2010-2015 University of Pennsylvania, Philadelphia, PA, "Epigenetics of Aging and Age Associated Disease" Program Project (P01), S. Berger P.I., External Advisory Committee.  
2011-present Lifespan Academic Medical Center, Providence, RI, "COBRE for Skeletal Health and Repair", Q. Chen P.I., External Advisory Committee.  
2012-2017 Mayo Clinic, Rochester, MN, "Cellular Senescence and Aging" Program Project (P01), J. Kirkland P.I., External Advisory Committee.  
2016-present Brown University, Providence, RI, "Computational Biology of Human Disease", D. Rand P.I., Internal Advisory Committee.  
2018-present Atropos Therapeutics, Inc.

### **External Review Committees**

2008 Huffington Center on Aging, Baylor College of Medicine, Houston, TX, External Review Committee  
2009 Member of the National Advisory Council on Aging, five year review of the Division of Aging Biology, National Institute on Aging  
2012 Member, site visit committee for the intramural Mouse Cancer Genetics Program, National Cancer Institute, Frederick, MD

### **Evaluation Letters for Tenure or Promotion**

2008 Dr. Chantal Autexier, promotion to Full Professor, McGill University  
2008 Dr. Linda Penn, Canada Research Chair, University of Toronto  
2008 Dr. Shin-Ichiro Imai, promotion to Associate Professor with tenure, Washington University of St. Louis  
2008 Dr. Willis Li, promotion to Associate Professor with tenure, University of Rochester

- 2008 Dr. Vera Gorbunova, promotion to Associate Professor with tenure, University of Rochester
- 2009 Dr. Robert Marciniak, promotion to Associate Professor with tenure, University of Texas Health Science Center, San Antonio
- 2009 Dr. F. Bradley Johnson, promotion to Associate Professor with tenure, University of Pennsylvania
- 2009 Dr. Sandy Chang, promotion to Associate Professor with tenure, Yale University
- 2010 Dr. Jeffrey Singer, promotion to Associate Professor without tenure, Portland State University
- 2011 Dr. Vera Gorbunova, promotion to Professor with tenure, University of Rochester
- 2011 Dr. Wenyi Wei, promotion to Associate Professor without tenure, Beth Israel Deaconess Medical Center, Harvard Medical School
- 2011 Dr. Zhijin Wu, promotion to Associate Professor with tenure, Department of Biostatistics, Brown University
- 2012 Dr. Utz Herbig, promotion to Associate Professor without tenure, UMDNJ-New Jersey Medical School
- 2013 Dr. Shawn Ahmed, promotion to Full Professor with tenure, University of North Carolina
- 2013 Dr. Danica Chen, promotion to Associate Professor with tenure, University of California Berkeley
- 2013 Dr. Hong Zhang, promotion to Associate Professor with tenure, University of Massachusetts Medical School
- 2014 Dr. Zhongjun Zhou, promotion to Full Professor with tenure, The University of Hong Kong
- 2014 Dr. David Lombard, promotion to Associate Professor with tenure, University of Michigan Medical School
- 2014 Dr. Chunming Dong, promotion to Full Professor with tenure, University of Miami School of Medicine
- 2015 Dr. Sandy Chang, promotion to Full Professor with tenure, Yale University School of Medicine
- Dr. Andrei Seluanov, promotion to Associate Professor with Tenure, University of Rochester
- Dr. Rozalyn Anderson, promotion to Associate Professor with Tenure, University of Wisconsin
- 2016 Dr. Mary Armanios, promotion to Full Professor with tenure, Johns Hopkins University School of Medicine
- 2018 Dr. Katherine Burns, promotion to Full Professor with tenure, Johns Hopkins University School of Medicine

**Expert Witness**

- 2001 Kaye Scholler, LLP, New York, NY; Lexicon Genetics, Inc., vs. Deltagen, Inc.

## **SERVICE TO INSTITUTION**

### **Yale**

Junior Faculty Scholar Review Committee, School of Medicine  
MSTP Admissions Committee, School of Medicine  
Swedelius Fund Postdoctoral Review Committee, Yale Comprehensive Cancer Center  
Biohazard Committee, Department MB&B  
Executive Committee, Department MB&B  
Junior Faculty Search Committee, Department MB&B  
Long Range Planning Committee, Department MB&B  
Undergraduate Curriculum Advisory Committee, Department MB&B

### **Brown Institutional Committees**

1996	Graduate Admissions Committee, MCB Department Co-chair with Jorg Martin
1996–present	Graduate Student Advisory Committees Graduate Program in Molecular Biology, Cell Biology, and Biochemistry Member
1997	Graduate Admissions Committee, MCB Department Chair
1997–1998	Planning Committee for Life Sciences Building Member
1998	Graduate Admissions Committee, MCB Department Chair
1998	Faculty Search Committee Department of Neurosurgery, Rhode Island Hospital Member
1998–2001	Executive Committee Graduate Program in Molecular Biology, Cell Biology, and Biochemistry Member
1998–2003	Executive Committee Center for Gerontology and Health Care Research Member
1998–2000	Faculty Search Committee Greer Chair in Gerontology Member
1999	Committee for Competitive Review and Site Visit NIH Training Grant in Molecular Biology, Cell Biology, and Biochemistry

Member

1999      Advisory Committee to Dean of Medicine and Biological Sciences  
Working Group on Genetics  
Member

1999      Faculty Search Committee  
Molecular Geneticist Faculty Position, MCB Department  
Chair

1999      Assistant Director  
Graduate Program in Molecular Biology, Cell Biology, and Biochemistry

2000–2005      Executive Planning Committee  
Center for Genetics and Genomics  
Chair

2000–2005      Principal Investigator and Director  
Center of Biomedical Research Excellence (COBRE)  
Center for Genetics and Genomics

2000–2006      Director of COBRE Core A (Administrative)

2000–2001      COBRE Core B (Transgenics)

2000–2006      Director of COBRE Core C (Genomics)

2000      Faculty Search Committee  
Molecular Geneticist Faculty Position, MCB Department  
Member

2000      Faculty Search Committee  
Bioinformatics Faculty Position, MCB Department  
Member

2001      Faculty Search Committee  
Director of Brown Cancer Center  
Member

2001–2003      Faculty Search Committee  
Director of Division of Cardiology, Lifespan Academic Medical Center  
Member

2001      Faculty Search Committee  
Director of COBRE Imaging core  
Chair

2001      Faculty Search Committee  
Bioinformatics Faculty Position, MCB Department

Member

2001 Faculty Search Committee  
Biochemistry Faculty Position, MCB Department  
Member

2002 Advisory Committee to Dean of Medicine and Biological Sciences  
Strategic Planning Working Group, BioMed Division  
Member

2002 Faculty Search Committee  
Director of COBRE Transgenic core  
Chair

2002 Faculty Search Committee  
Neuroscience Faculty Positions, Neuroscience Department  
Member

2003–2006 Faculty Search Committee  
Genomics and Proteomics Faculty Positions, Bio-Med Division  
Chair

2003 - 2004 Building Committee for Laboratories for Molecular Medicine  
Member

2003–2006 Executive Committee  
Center for Computational Molecular Biology  
Member

2004–2010 Steering Committee  
Laboratories for Molecular Medicine  
Member

2004–2009 Executive Committee  
Graduate Program in Molecular Biology, Cell Biology, and Biochemistry  
Member

2005 Faculty Search Committee  
Center for Statistical Sciences  
Member

2005 Dean's Action Group on Scientific Taxonomy  
Brown Medical School  
Chair

2005–2008 Executive Committee  
Department of Molecular Biology, Cell Biology, and Biochemistry  
Chair

2005–2006	Principal Investigator and Director Center of Biomedical Research Excellence (COBRE) Center for Cancer Signaling Networks
2006–2009	Executive Committee Center for Genomics and Proteomics Chair
2007	Search Committee Associate Dean for Cross-Disciplinary Sciences Brown Medical School
2007-2009	Biomedical Engineering Executive Advisory Council Center for Biomedical Engineering Brown University
2009-2010	MCB Graduate Program Admissions Committee, MCB Department Member
2011-present	Director of Genomics Core Facility Center of Biomedical Research Excellence (COBRE) Center for Cancer Signaling Networks
2011	Academic Priorities Committee, Brown University Member
2011	Knowledge District Committee, Brown University Member
2012–present	MCB Graduate Program Executive Committee, MCB Department Member
2012–present	Principal Investigator of T32 training grant in the Biology of Aging, and Director of the Aging Track in the MCB Graduate Program
2017–present	Radiation Safety Committee (University)
2018-2019	Search Committee Alzheimer's/Neurodegeneration, Bio-Med Division Member
2018-2019	Search Committee Geriatrics, Brown Medical School Member

**Ph.D. Thesis Committees (Brown)**

1996–1997	Zitek, Melanie, Pathobiology (Elaine Bearer, thesis supervisor)
1996–1997	Wehbe, Tarek, Pathobiology (John Sedivy, thesis supervisor)

1996–2000 Stevenson, Lisa, Pathobiology (Ray Frackelton, thesis supervisor)  
1996–1997 Yoon, Jung-Won, MCB (Kristi Wharton, thesis supervisor)  
1996–1999 Myung, Kyung-Jae, MCB (Eric Hendrickson, thesis supervisor)  
1996–2000 Jung, Joonil, MCB (Ken Zaret, thesis supervisor)  
1996–2000 Mateyak, Maria, MCB (John Sedivy, thesis supervisor)  
1996–2000 Meszaros, Adraina, Pathobiology (Jorge Albina, thesis supervisor)  
1997–2002 Azaro, Marco, MCB (Arthur Landy, thesis supervisor)  
1997–2002 Braastad, Corey, MCB (Eric Hendrickson, thesis supervisor)  
1997–2003 Li, Gang, MCB (Eric Hendrickson, thesis supervisor)  
1997–2004 Wei, Shan, MCB (John Sedivy, thesis supervisor)  
1998–2000 Mills, David, Pathobiology (Cynthia Jackson, thesis supervisor)  
1998–2001 Pan, Jennifer, Pharmacology (Diane Lipscombe, thesis supervisor)  
19982001 Wei, Wenyi, MCB (John Sedivy, thesis supervisor)  
19982005 Yang, Zhongfa, MCB (Alan Rosmarin, thesis supervisor)  
1999–2003 Ashok, Aarthi, MCB, (Walter Atwood, supervisor)  
1999–2005 Creely, Hilliary, MCB (Justin Fallon, thesis supervisor)  
1999–2000 Dunaway, Stephen, MCB (Eric Hendrickson, thesis supervisor)  
1999–2005 Mumm, Jeffrey, MCB (Arthur Landy, thesis supervisor)  
1999–2003 Pearson, Brooke, Pathobiology (Andrew Campbell, thesis supervisor)  
1999–2003 Voronina, Katia, MCB (Gary Wessel, thesis supervisor)  
2000–2004 Lizotte, Donna, MCB (Alison DeLong, thesis supervisor)  
2000–2004 O'Connell, Brenda, MCB (John Sedivy, thesis supervisor)  
2000–2004 Williams, Lisa, MCB (Ray Frackelton, thesis supervisor)  
2000–2004 Chung, Alicia, MCB (Eugene Chin, thesis supervisor)  
2000–2005 Jobling, Wendy, MCB, (John Sedivy, thesis supervisor)  
2001–2007 Justina Gonzales, MCB, (Jeffrey Singer, thesis supervisor)  
2001–2005 Sanders, Jennifer, MCB (Philip Gruppuso, thesis supervisor)  
2002–2006 Isil Guney, MCB, (John Sedivy, thesis supervisor)  
2002–2007 Pooja Agrawal, MCB, (John Sedivy, thesis supervisor)  
2002–2007 Amy Whiting, MCB, (John Sedivy, thesis supervisor)  
2002–2007 Kate Manley, MCB (Walter Atwood, thesis supervisor)  
2003–2006 William Querbes, Pathobiology (Walter Atwood, thesis supervisor)  
2004–2008 William Tsiaras, MD/PhD (Robert Smith, thesis supervisor)  
2005–2009 Hua Li, MCB (Gerwald Jogl, thesis supervisor)  
2006–2008 Chui-Sun Yap, MCB (John Sedivy, thesis supervisor)  
2007–2012 Edward Peckham, MCB (John Sedivy, thesis supervisor)  
2009–2013 Leroy Cooper, MPPB (Gideon Koren, supervisor)  
2009–2013 Rachel Whitaker, MCB (Stephen Helfand, supervisor)  
2010–2014 Jeffrey Hofmann, MCB (John Sedivy, thesis supervisor)  
2010–2015 Xiaoi Zhao, Pathobiology (John Sedivy, thesis supervisor)  
2011–2016 Takahiro Ito, MCB (John Sedivy, thesis supervisor)  
2011–2012 Sherida Ramahan, Pathobiology (Devasis Chatterjee, thesis supervisor)  
2011–2015 Kun Yang, Pathobiology (Qian Chen, thesis supervisor)  
2012–2016 Steven Criscione, MCB (co-supervisor with Nicola Neretti)  
2013–2017 Kevin Murphy, MCB (Gideon Koren, thesis supervisor)  
2015–present Anna Petrashen, MCB (John Sedivy, thesis supervisor)  
2015–present Trent Woodham, MCB (John Sedivy, thesis supervisor)  
2015–present Sun Kim, MCB (Ashley Webb, thesis supervisor)  
2015–present Yee-Voan Teo, MCB (Nicola Neretti, thesis supervisor)



2016–present	Jocelyn Newton, MCB (John Sedivy, thesis supervisor)
2017–present	Brett Baggett, MCB (Gideon Koren, supervisor)
2017–present	Jiwon Seo, MCB (John Sedivy, thesis supervisor)
2017–present	Amy Elias, MCB (Jill Kreiling, thesis supervisor)
2018–present	Alexandra D'Ordine, MCB (John Sedivy, thesis supervisor)
2018–present	Shane Evans, CCMB (Nicola Neretti, thesis supervisor)
2018–present	Xuan Botai, MPPB (Michelle Dawson, thesis supervisor)
2018–present	Mary Tarantino, MCB (Sarah Delaney, thesis supervisor)
2018–present	Jeremy Horrell, MCB (Nicola Neretti, thesis supervisor)
2018–present	Corinne Hutfilz, MCB (Marc Tatar, thesis supervisor)

#### **Ph.D. Thesis Committees (outside examiner)**

2003	Cynthia Ho, University of Toronto (Linda Penn, thesis supervisor)
2005	Liza Konikova, Tufts Medical School (Brent Cochran, thesis supervisor)
2006	Jesse Boehm, Harvard Medical School (William Hahn, thesis supervisor)
2008	Kristin Yates, Yale University (Daniel DiMaio, thesis supervisor)
2008	Andrea Maier, Leiden University, Netherlands (Rudi Westendorp, supervisor)
2010	Sofie Degerman, Umea University, Sweden (Goran Roos, supervisor)
2012	Charusheila Ramkumar, UMass Medical School (Hong Zhang, supervisor)
2014	Eric Swanson, UMass Medical School (Jeanne Lawrence, supervisor)
2017	Shrestha Ghosh, University of Hong Kong (Zhongjun Zhao, supervisor)

#### **Undergraduate Advising (Brown only)**

1998–2000	Peter Benjamin, Hannah Cohen, Irene Ho, Caron Nelsen, Joanne Sylvia, Diane Yaros, Alenka Zeman, Brian Zipser
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#### **TEACHING**

##### **Yale**

1989	MBB 251La "Laboratory for Biochemistry" MBB 744b "Topics in Eukaryotic Molecular Genetics"
1990	MBB 476b "Senior Seminar" MBB 755b "Critical Readings in Molecular Genetics"
1991	MBB 744b "Topics in Eukaryotic Molecular Genetics" MBB 776b "Responsible Conduct of Research"
1992	MBB 301b "Principles of Biochemistry II" MBB 776b "Responsible Conduct of Research"
1993	MBB 361Lb "Laboratory for Biochemistry" MBB 744b "Topics in Eukaryotic Molecular Genetics" MBB 776b "Responsible Conduct of Research"
1994	MBB 360Lb "Laboratory for Biochemistry"

MBB 610a "Gene Therapy"  
MBB 743b "Molecular Genetics of Eukaryotes"

1995 MBB 360Lb "Laboratory for Biochemistry"

**Brown**

1996 BI047 "Genetics"  
Course Leader (Fyodor Urnov, co-instructor)  
Enrollment: 203

1997 BI047 "Genetics"  
Course Leader (Marc Tatar, co-instructor)  
Enrollment: 284

1998 BI047 "Genetics"  
Course Leader (Marc Tatar, co-instructor)  
Enrollment: 186

1998 BI0154 "Molecular Genetics"  
Co-instructor with Arthur Landy (course leader)  
Enrollment: 34

1999 BI047 "Genetics"  
Course Leader (Marc Tatar, co-instructor)  
Enrollment: 162

1999 BI220 "Current Topics in Biochemistry and Molecular Biology"  
Course Leader (Arthur Landy, co-instructor)  
Enrollment: 11

2000 BI047 "Genetics"  
Course Leader (Marc Tatar, co-instructor)  
Enrollment: 198

2001 Sabbatical leave

2002 BI028 "Biochemistry"  
Co-instructor with Kimberly Mowry (course leader)  
Enrollment: 108

2003 BI221 "Current Topics in Biochemistry and Molecular Biology"  
Co-instructor with Jeffrey Singer (course leader)  
Enrollment: 8

2003–2006 BI213 "Techniques in Molecular and Cellular Sciences"  
Jeffrey Morgan, Course leader  
Responsible for 1 lecture (Gene Expression Microarrays)  
Enrollment: 12-16

- 2003–2006 BC261 "Statistical Methods in Bioinformatics"  
Constantine Gatsonis, Course leader  
Responsible for 2 lectures (Gene Expression Microarrays)  
Enrollment: 12-18
- 2008 BIOL0232 "Current Topics in Developmental Biology: The Biology of Aging"  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of course  
Enrollment: 15
- 2009 Sabbatical leave (spring semester)
- 2010 BIOL2320 "Current Topics in Developmental Biology: The Biology of Aging"  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of course  
Enrollment: 3
- 2010 BIOL2010 "Quantitative Approaches in Biology"  
John Sedivy, Course leader  
Responsible for organizing the course  
Enrollment: 12
- 2011 BIOL2320 "Current Topics in Developmental Biology: The Biology of Aging"  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of course  
Enrollment: 9
- 2011 BIOL2010 "Quantitative Approaches in Biology"  
John Sedivy, Course leader  
Responsible for organizing the course  
Enrollment: 12
- 2011 BIOL2030 "Foundations for Advanced Study in Experimental Biology"  
Jeffrey Laney, Course leader  
Delivered 4 lectures  
Enrollment: 10
- 2012 BIOL2320 "Current Topics in Developmental Biology: The Biology of Aging"  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of course  
Enrollment: 9
- 2012 BIOL2030 "Foundations for Advanced Study in Experimental Biology"  
Alison DeLong, Course leader  
Delivered 7 lectures  
Enrollment: 13
- 2013 BIOL2320 "Current Topics in Developmental Biology: The Biology of Aging"

- Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course  
Enrollment: 10
- 2013 BIOL2030 “Foundations for Advanced Study in Experimental Biology”  
Alison DeLong, Course leader  
Delivered 10 lectures  
Enrollment: 9
- 2014 BIOL2350 “The Biology of Aging”  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course  
Enrollment: 10
- 2014 BIOL2030 “Foundations for Advanced Study in Experimental Biology”  
Alison DeLong, Course leader  
Delivered 13 lectures  
Enrollment: 9
- 2015 BIOL2350 “The Biology of Aging”  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course  
Enrollment: 9
- Sabbatical (fall semester)
- 2016 BIOL2350 “The Biology of Aging”  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course  
Enrollment: 14
- 2016 BIOL2030 “Foundations for Advanced Study in Experimental Biology”  
Alison DeLong, Course leader  
Delivered 12 lectures  
Enrollment: 13
- 2017 BIOL2350 “The Biology of Aging”  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course  
Enrollment: 13
- 2017 BIOL2030 “Foundations for Advanced Study in Experimental Biology”  
Alison DeLong, Course leader  
Delivered 6 lectures  
Enrollment: 13
- 2018 BIOL2350 “The Biology of Aging”  
Stephen Helfand, Course leader; Marc Tatar, Co-instructor  
Responsible for one third of the course

Enrollment: 7

2018 BIOL2030 “Foundations for Advanced Study in Experimental Biology”  
Alison DeLong, Course leader  
Delivered 6 lectures  
Enrollment: 7

2019 BIOL2350 “The Biology of Aging”  
John Sedivy, Course leader; Stephen Helfand, Marc Tatar, Co-instructors  
Responsible for one third of the course  
Enrollment: 7

## **TRAINEES**

### **Undergraduate Independent Research (Brown only)**

1997–1998	Leslie Stephens
1997–1998	Bechien Wu
1997–1998	Theresa Allenghat
1998–1999	Kathryn Davis
1998–1999	Marcus Gustafsson
1998–2000	Wanny Tam
1999–2000	Diane Yaros
1999–2000	Alenka Zeman
2000–2001	Mark Ewalt
2000–2001	Karen Livne
2000–2002	Lily Wang
2000–2002	Ann Cheung
2001–2002	Sabrina Richards
2002–2003	Jennifer Rosenberg
2003–2004	Shirley Wu
2005–2006	Mark Fereira
2007–2008	Zhihao Tan
2007–2008	Srividya Kalyanaraman
2008–2010	Benjamin Lowell
2010–2010	Riyad Seervai
2012–2013	Michael Coates
2016–present	Andrew Verdesca

### **MD Independent Research**

2005–2006 Clara Kim

### **PhD Candidates (all)**

1989–1994	Keith Hanson (Yale degree)
1994–1999	Alex Bazarov (Yale degree)
1995–2000	Maria Mateyak
1996–2004	Shan Wei

1997–2001	Wenyi Wei
1998–2004	Brenda O'Connell
2000–2005	Isil Guney
2000–2007	Pooja Agrawal
2002–2005	Wendy Jobling
2002–2007	Amy Whiting
2004–2005	Isin Cakir
2006–2008	Chui-Sun Yap
2007–2012	Edward Peckham
2010–2015	Xiaoai Zhao
2010–2014	Jeffrey Hofmann
2011–2016	Takahiro Ito
2011–2012	Sherida Ramahan
2012–2016	Steven Criscione (Nicola Neretti, primary supervisor)
2015–present	Anna Petrashen
2015–present	Trenton Woodham
2016–present	Jocelyn Newton
2017–present	Jiwon Seo
2018–present	Alexandra D'Ordine
2018–present	Jeremy Horrell (Nicola Neretti, primary supervisor)

**Graduate Rotation Students (Brown only)**

1996	Oxana Karpenko
1996	Maria Hleb
1997	Xiaolan Hu
1999	Tom Bell
1999	Alicia Chung
1999	Prasana Satpute
1999	Isil Guney
2001	Amy Whiting
2002	Wananit Wimuttisuk
2003	James Gagnon
2003	Isin Cakir
2004	Tsedensodnom Orkhontuya
2005	Chui-Sun Yap
2006	Courtney Klaips
2007	Edward Peckham
2008	Rachel Whitaker
2008	Jeffrey Hofmann
2009	Jennifer Joukhadar
2009	Xiaoai Zhao
2011	Takahiro Ito
2011	Katherine Grive
2011	Sherida Ramahan
2011	Steven Criscione
2012	Kevin Murphy
2013	Vanessa Scialabba
2014	Amy Gordon

2015	Anna Petrashen
2015	Trent Woodham
2016	Brett Baggett
2016	Amy Elias
2017	Joshua Berus
2017	Jeremy Horrell
2017	Jiwon Seo
2017	Mary Tarantino
2017	Anders Ohman
2018	Corinne Hutfilz
2018	Roy Hsu

**Postdoctoral Associates (all)**

1990–1993	Steve Prouty
1990–1993	Masayoshi Shichiri
1990–1994	Shengfeng Li
1993–1996	Susumu Adachi
1994–1996	Jeremy Brown
1995–1999	Annie Dutriaux
1996–2000	Alvaro Obaya
1996–1997	Kam Yeung
1997–2000	Noemi Ramos-De Simone
1998–2000	Ruth Hemmer
2001–2002	Wenyi Wei
2000–2007	Christoph Schorl
2000–2006	Utz Herbig
2002–2003	Antonei Csoka
2004–2005	Brenda O'Connell
2005–2011	Jessie Chandika Jeyapalan
2005–2009	Ursula Munoz-Najar
2008–2009	Deepak Raj
2012–2016	Marco DeCecco
2016–2016	Takahiro Ito

**Clinical Fellows**

2009-2011	Gregory Zach
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**Investigators/Instructors**

2001–2005	Carl Simkevich
2009–2012	Ursula Munoz-Najar
2011–2012	Jessie Chandika Jeyapalan
2016–present	Marco DeCecco

**Assistant Professors (Research)**

1997–2001	Kam Yeung
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2008–2017 Jill Kreiling

**Associate Professors (Research)**

1994–1997 Peter Rabinovich

2017–present Jill Kreiling

**Visiting Scientists**

2005 Steven Theroux, Ph.D., Professor, Assumption College, MA  
2008 Mirko Francesconi, Graduate Student, University of Bologna, Italy  
2009–2010 Mimi Adachi, M.D., Ph.D., Assistant Professor, Tokyo Medical and Dental University, Tokyo, Japan  
2010–2011 Marco DeCecco, Graduate Student, University of Bologna, Italy  
2010 Stella Lucas-Yani, Graduate Student, University of Bologna, Italy  
2012 Mimi Adachi, M.D., Ph.D., Assistant Professor, Teikyo Medical University, Tokyo, Japan  
2013 Luca Pagliaroli, Graduate Student, University of Bologna, Italy  
2014 Alberto Caligiana, Graduate Student, University of Bologna, Italy  
2016 Greta Broccoli, Graduate Student, University of Bologna, Italy  
2018 Chiara Solfi, Graduate Student, University of Bologna, Italy  
2018 Francescha Bruno, Graduate Student, University of Bologna, Italy

**GRANT SUPPORT**

**Completed**

Agency: National Institutes of Health

Type: BRSG Fluid Funds

Period: 11/01/88-10/31/89

Title: N/A

Direct costs (total): 8,500

Principal Investigator: John Sedivy

Agency: American Cancer Society

Type: Institutional Research Grant

Period: 01/01/89-12/31/89

Title: *The Function of the Src Oncogene in Cellular Physiology*

Direct costs (total): 10,000

Principal Investigator: John Sedivy

Agency: American Cancer Society

Type: Research Grant #CD-430

Period: 07/01/89-06/30/92

Title: *The Function of Myc Oncogene in Cellular Physiology*

Direct costs (total): 176,000

Principal Investigator: John Sedivy

Agency: March of Dimes Birth Defects Foundation



Type: Basil O'Connor Starter Scholar Research Award # 5-755  
Period: 09/1/89-08/31/91  
Title: *Gene Therapy of Mammals Using Targeted Homologous Recombination*  
Direct costs (total): 60,000  
Principal Investigator: John Sedivy

Agency: National Science Foundation  
Type: Presidential Young Investigator Award DMB-907715  
Period: 01/01/90-03/31/95  
Title: N/A  
Direct costs (total): 312,500  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 GM41690-01-05  
Period: 01/01/90-12/31/94  
Title: *Gene Disruption by Homologous Recombination in Mammals*  
Direct costs (total): 413,756  
Principal Investigator: John Sedivy

Agency: Eli Lilly and Company  
Type: unrestricted gift  
Period: 1993  
Title: N/A  
Direct costs (total): 5,000  
Principal Investigator: John Sedivy

Agency: The Alternatives Research & Development Foundation  
Type: Private  
Period: 08/01/94-07/31/95  
Title: *A New Human Cell Culture Assay for the Identification of Anti-Cancer Drugs*  
Direct costs (total): 25,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P01 AR41492-03  
Period: 09/01/94-08/31/95  
Title: *A New Cell Culture Model of Human Skin Cancer (Sedivy portion)*  
Direct costs (total): 18,000 (Sedivy portion)  
Principal Investigator: Robert Tigelaar

Agency: National Institutes of Health  
Type: P01 AR41492-04  
Period: 09/01/95-08/31/96  
Title: *A New Cell Culture Model of Human Skin Cancer (Sedivy portion)*  
Direct costs (total): 18,000 (Sedivy portion)  
Principal Investigator: Robert Tigelaar

Agency: National Science Foundation  
Type: MCB 9514179  
Period: 07/01/96-06/30/97  
Title: *Structure and function of hnRNP proteins*  
Direct costs (total): 32,334 (Sedivy portion)  
Principal Investigator: Kenneth Williams

Agency: National Institutes of Health  
Type: R01 HG00982-01-03  
Period: 06/01/94-05/31/97  
Title: *Cloning system based on the E. coli F factor*  
Direct costs (total): 476,094  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 GM41690-07-10  
Period: 07/01/95-06/30/99  
Title: *Genetic studies of c-myc gene function in the cell cycle*  
Direct costs (total): 555,947  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 GM55435-01-03  
Period: 07/01/96-06/30/99  
Title: *Substrates of the Raf-1 protein kinase*  
Direct costs (total): 234,812  
Principal Investigator: John Sedivy

Agency: Eli Lilly and Company  
Type: Private  
Period: 07/01/98-06/30/99  
Title: *Gene targeting in human cells*  
Direct costs (total): 56,654  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 AG16694-01-05  
Period: 04/01/99-03/31/04  
Title: *Effectors of senescent states in human fibroblasts*  
Direct costs (total): 1,005,593  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 GM41690-11-14  
Period: 07/01/99-06/30/03  
Title: *Genetic studies of c-myc gene function in the cell cycle*  
Direct costs (total): 840,178  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P20 RR15578-01-05  
Period: 10/01/00-06/30/05  
Title: *Center for Genetics and Genomics*  
Direct costs (total): 9,026,973  
Principal Investigator: John Sedivy

Agency: Progeria Research Foundation  
Type: Private  
Period: 07/01/01-06/30/03  
Title: *Cloning the Gene for Hutchinson-Guilford Progeria Syndrome by Somatic Cell Complementation*  
Direct costs (total): 100,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P20 RR15578-06-10  
Period: 7/01/05-06/30/10  
Title: *Center for Cancer Signaling Networks*  
Direct costs (total): 7,683,592  
Principal Investigator: John Sedivy, as of 05/01/06: Walter Atwood

Agency: National Institutes of Health  
Type: R01 GM41690-15-18  
Period: 07/01/03-06/30/08  
Title: *Genetic studies of c-myc gene function in the cell cycle*  
Direct costs (total): 960,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 GM41690-17S1-18S1  
Period: 02/01/06-06/30/07  
Title: *Biological complexity supplement to Genetic studies of c-myc gene function in the cell cycle*  
Direct costs (total): 103,754  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 AG016694-06-10  
Period: 05/01/04-04/30/09  
Title: *Effectors of senescent states in human fibroblasts*  
Direct costs total: 971,143  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R21 CA133601-01A2-03  
Period: 08/01/09-07/31/12  
Title: *Raf Kinase Inhibitory Protein (RKIP): A new hepatocellular carcinoma tumor suppressor*

Direct costs total: 275,000  
Principal Investigator: John Sedivy

Agency: Ellison Medical Foundation  
Type: Private  
Period: 01/01/08-12/31/2013  
Title: *The role of cellular senescence in the aging of mammals*  
Direct costs total: 600,000  
Principal Investigator: John Sedivy

Agency: Glenn Foundation for Medical Research  
Type: Private  
Period: 07/01/2011-06/30/2013  
Title: *Glenn Award for Research in Biological Mechanisms of Aging*  
Direct costs total: 60,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R01 AG035328  
Period: 10/01/09-09/30/13  
Title: *The Wnt-chromatin axis in aging*  
Direct costs total: 600,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P30 AI042853-16  
Period: 07/01/13-06/30/17  
Title: *Lifespan/Tufts/Brown Center for AIDS Research (CFAR).*  
Direct costs (Sedivy) total: 40,000  
Principal Investigator: Charles Carpenter  
Role on Project: Leader of Pilot Exploratory Grant

Agency: Samsung Global Research Outreach (GRO)  
Type: Private  
Period: 03/01/14-02/28/14  
Title: *Epigenetic control of somatic retrotransposition: a role in muscle degeneration and sarcopenia?*  
Direct costs total: 67,242  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: R13 AG050322  
Period: 04/18/15-07/24/15  
Title: *Biology of Aging Gordon Research Conference and Gordon Research Seminar*  
Direct costs total: 50,000  
Principal Investigator: John Sedivy

Agency: National Institutes of Health

Type: T32 AG041688-05  
Period: 05/01/12-04/30/17  
Title: *Predoctoral Training in the Molecular Biology of Aging*  
Direct costs current year: 177,304 (784,380 direct costs total)  
Principal Investigator: John Sedivy

Agency: American Federation for Aging Research  
Type: Private, Glenn/AFAR Breakthroughs in Gerontology  
Period: 07/01/14-06/30/17  
Title: *Chromatin-Regulated Activation of Retrotransposable Elements – A Novel Molecular Mechanism of Aging*  
Direct costs current year (Sedivy portion): 46,296 (92,592 direct costs total)  
Principal Investigator: Stephen Helfand

Agency: National Institutes of Health  
Type R56 AG050582-01  
Period: 09/15/15-09/14/17  
Title: *The Role of Somatic Transposition in Age-Associated Genomic Instability*  
Direct costs current year: 356,074 (356,074 direct costs total)  
Principal Investigator: Nicola Neretti (communicating PI)  
Role on Project: MPI

Agency: National Institutes of Health  
Type: P30 GM103410-05  
Period: 04/15/11-03/31/17  
Title: *Center for Cancer Signaling Networks.*  
Principal Investigator: Walter Atwood  
Role on Project: Director of Genomics Core Facility  
Other than partial salary offset this award does not fund projects in the Sedivy laboratory.

Agency: National Institutes of Health  
Type: R21 049608-01  
Period: 09/30/15-08/31/17  
Title: *Arrhythmia in the Infarcted Aging Heart: Role of Fibroblast Senescence*  
Direct costs current year: 188,877 (188,877 direct costs total)  
Principal Investigator: John Sedivy (communicating PI)  
Role on Project: MPI

## **Current**

Agency: National Institutes of Health  
Type: R37 AG016694-20 (MERIT Award)  
Period: 05/01/09-04/30/19  
Title: *Effectors of Senescent States*  
Direct costs current year: 205,000 (1,025,00 direct costs total)  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P01 AG051449-03  
Period: 09/01/16-05/31/21  
Title: *Somatic Activation of Retrotransposition: A New Molecular Mechanism of Aging?*  
Direct costs year current year: 1,648,373  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: T32 AG041688-07  
Period: 05/01/17-04/30/22  
Title: *Predocutorial Training in the Molecular Biology of Aging*  
Direct costs current year: 186,368  
Principal Investigator: John Sedivy

Agency: National Institutes of Health  
Type: P20 GM119943-02  
Period: 07/01/17-06/30/22  
Title: *COBRE: Center for Stem Cells and Aging.*  
Direct costs current year: 1,500,000  
Principal Investigator: Peter Quesenberry  
Role on Project: Associate Director  
Other than partial salary offset this award does not fund projects in the Sedivy laboratory.

Agency: National Institutes of Health  
Type: R01 AG050582-02  
Period: 09/15/17-04/30/22  
Title: *The Role of Somatic Transposition in Age-Associated Genomic Instability*  
Direct costs current year: 222,442  
Principal Investigator: Nicola Neretti (communicating PI)  
Role on Project: MPI

## **Pending**

Agency: National Institutes of Health  
Type: R01 submitted to NHLBI 03/05/18 (received priority score of 8%).  
Period: 09/01/18-08/31/23  
Title: *Scarring and Arrhythmia in Infarcted Aged Hearts: Role of Senescent Fibroblasts*  
Status: IRG review pending  
Principal Investigator: Gideon Koren

Role on Project: MPI

**Postdoctoral Fellowships Awarded to Trainees**

Steve Prouty	American Cancer Society Postdoctoral Fellowship
Masayoshi Shichiri	Argall L. and Anna G. Hull Fund Postdoctoral Fellowship (Yale Comprehensive Cancer Center)
Shengfeng Li	The Patrick and Catherine Weldon Donaghue Medical Research Foundation (Hartford, CT) Postdoctoral Fellowship
Susumu Adachi	Swebilius Cancer Research Award (Yale Comprehensive Cancer Center)
Annie Dutriaux	Association pour la Recherche sur le Cancer (France) Postdoctoral Fellowship
Alvaro Obaya	Ministerio de Educacion y Cultura (Spain) Postdoctoral Fellowship
Noemi Ramos-DeSimone	Minority supplement to NIH grant R01-GM41690-06-10, John M. Sedivy, P.I.
Utz Herbig	NRSA Individual Postdoctoral Research Award, F32 CA099388
Ursula Munoz_Najar	Philip Morris Postdoctoral Fellowship
Marco De Cecco	American Association for Aging Research Postdoctoral Fellowship

**MD/PhD Student Research Fellowships Awarded to Trainees**

Jeffrey Hofmann	NRSA Individual Predoctoral MD/PhD Fellowship, F30 AG035592
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**PhD Student Research Fellowships Awarded to Trainees**

Takahiro Ito	NRSA Individual Predoctoral PhD Fellowship, F31 AG043189
Steven Criscione	NRSA Individual Predoctoral PhD Fellowship, F31 AG050365

**Medical Student Research Fellowships Awarded to Trainees**

Clara Kim	Howard Hughes Medical Student Research Fellowship
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**Career Development Awards to Mentees**

Nicola Neretti	NIH Mentored Quantitative Research Development Award, <i>Computational Biology of Transcriptional Networks in Aging</i> K25 AG028753
Jill Kreiling	NIH Mentored Research Scientist Development Award, <i>Regulation of Age-Associated Heterochromatin Formation</i> K01 AG039410

**PUBLICATIONS (>150 total)**

**Monographs**

1. Sedivy, J.M. and Joyner, A. (1992). *Gene Targeting*. W.H. Freeman Press, NY.

**Edited Books**

1. Adams, P.D. and Sedivy, J.M., editors (2010). *Cellular Senescence and Tumor Suppression*. Springer Press (ISBN: 9781441910745).

**Invited Commentaries**

1. Brown, J.P. and Sedivy, J.M. (1995). What could be simpler? Using human cells to study human cancer. *J. Am. Anti-Vivisect. Soc.* **103**: 15-18.
2. Sedivy, J.M. (2002). Gene targeting comes to top-down drug screens. *Trends Biotechnol.* **20**: 92-93.
3. Sedivy, J.M., Shippen, D.E. and Shakirov, E.V. (2003). Surprise ending (News & Views article). *Nat. Genet.* **33**: 114-116.
4. Sedivy, J.M. (2003). Reproductive cloning conserves cellular senescence (News & Views article). *Nat. Cell Biol.* **5**: 495-496.
5. Sedivy, J.M. (2007). Telomeres limit cancer growth by inducing senescence: Long-sought in vivo evidence obtained (Preview article). *Cancer Cell* **11**: 389-391 (PMID: 17482128).
6. Campisi, J. and Sedivy, J.M. (2009). How does proliferative homeostasis change with age? What causes it and how does it contribute to aging? *J. Gerontol. A. Biol. Sci. Med. Sci.* **64A**: 164-166.
7. Sedivy, J. M. (2009). How to learn new and interesting things from model systems based on "exotic" biological species. *Proc. Natl. Acad. Sci. USA* **106**: 19207-19208 (PMID: 19906993).
8. Sedivy, J.M. and van Deursen, J.M. (2013). Why do we grow old: is it because our cells just wear out, we run out of cells (or both), and what can we do about it? *BMC Longevity & Healthspan* **2**: 7-8.
9. Baker, D.J. and Sedivy, J.M. (2013). Probing the depths of cellular senescence. *J. Cell Biol.* **202**: 11-13.
10. Gorbunova, V., Boeke, J.D., Helfand, S.L. and Sedivy, J.M. (2014). Sleeping dogs of the genome: Retrotransposable elements may be agents of somatic diversity, disease and aging. *Science* **346**: 1187-1188 (PMC 4312280).



11. Longo, V.D., Antebi, A., Bartke, A., Barzilai, N., Brown-Borg, H.M., Caruso, C., Curiel, T.J., de Cabo, R., Franceschi, C., Gems, D., Ingram, D.K., Johnson, T.E., Kennedy, B.K., Kenyon, C., Klein, S., Kopchick, J.J., Lepperdinger, G., Madeo, F., Mirisola, M.G., Mitchell, J.R., Passarino, G., Rudolph, K.L., Sedivy, J.M., Shadel, G.S., Sinclair, D.A., Spindler, S.R., Suh, Y., Vijg, J., Vinciguerra, M., and Fontana, L. (2015). Interventions to slow aging in humans: are we ready? *Aging Cell* **14**: 497-510 (PMC 4531065).
12. Tatar, M. and Sedivy, J.M. (2016). Mitochondria: Masters of epigenetics. *Cell* **165**: 1052-1054.
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#### MEETING ABSTRACTS (Brown only)

#### The 12th Annual Meeting on Oncogenes, June 18-22, 1996, Frederick, MD

Mateyak, M., Adachi, S. and Sedivy, J.M. Characterization of c-Myc-deficient cells: growth and expression of cyclins.

Weissinger, E.M., Eisner, G., Grammer, C., Fackler, S., Yoon, L.S., Lu, K.S., Bazarov, A., Sedivy, J.M. and Kolch, W. Activation of cAMP-dependent protein kinase induces apoptosis in v-abl transformed cells.

Adachi, S. and Sedivy, J.M. Characterization of c-Myc-deficient cells: apoptosis.  
Brown, J.P. and Sedivy, J.M. Efficient gene targeting in nonimmortalized human somatic cells.

Bazarov, A., Lu, K.S., Yoon, L.S. and Sedivy, J.M. A genetic analysis of Raf-1 requirement in the cell cycle.

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Bush, A., Dugan, K., Mateyak, M.M., Adachi, S., Sedivy, J.M. and Cole, M. Expression of c-Myc target cells in c-myc null cells.

Dutriaux, A. and Sedivy, J.M. Introduction of discrete mutations into the promoter of the c-myc gene in rat fibroblasts by homologous recombination.

Mateyak, M.M., Obaya, A.J. and Sedivy, J.M. Characterization of a G1 phase defect in c-myc deficient cells.

Xiao, Q., Shi, J., Claassen, G., Sedivy, J.M. and Hann, S.R. The downstream-initiated c-Myc S protein is incapable of transactivation yet promotes cell cycle progression, anchorage-independent growth and apoptosis in fibroblasts.

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Wei, W., Brown, J.P. and Sedivy, J.M. Bypass of senescence and crisis in normal human fibroblasts by defined genetic events.

**Cold Spring Harbor Meeting on the Cell Cycle, May 20-24, 1998**

Mateyak, M.K., Obaya, A.J. and Sedivy, J.M. Absence of c-Myc results in a defect in Rb phosphorylation and a delay in the expression of subsequent cell cycle regulatory genes.

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Wei, S., Wei, W. and Sedivy, J.M. Expression of catalytically active telomerase does not prevent premature senescence caused by overexpression of oncogenic Ha-Ras in normal human fibroblasts.

Marhin, W., Asker, C., Chen, S., Oster, S., Facchini, L., Dion, P., Post, M., Funa, K., Sedivy, J.M. and Penn, L.Z. Myc suppresses platelet derived growth factor  $\beta$  receptor expression.

Obaya, A.J., Mateyak, M.K. and Sedivy, J.M. Reduction of Cdk4/6 kinase activity is the earliest cell cycle defect in c-myc null cells.

Wei, S. and Sedivy, J.M. Knockout of the p21<sup>CIP1/WAF1</sup> gene prevents premature senescence caused by oncogenic Ha-Ras in primary rodent but not human fibroblasts.

Wei, W. and Sedivy, J.M. Expression of catalytically active telomerase is not sufficient to elicit immortalization in some normal human fibroblast cell strains.

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Yeung, K.C., Shokat, K.M. and Sedivy, J.M. Engineering of the Raf-1 kinase ATP-binding site to accept the unnatural ATP analog N6 (2-phenethyl) ATP.

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Obaya, A.J., Mateyak, M.K. and Sedivy, J.M. Restoration of cyclin D - CDK4/6 activity or cyclin E - cdk2 activity is not sufficient to rescue the proliferation defect of *c-myc* <sup>-/-</sup> cells.

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Soucie, E.L., Annis, M.G., Sedivy, J.M., Filmus, J., Leber, B., Andrews, D.W. and Penn, L.Z. Myc potentiates apoptosis by stimulating Bax activity at the mitochondria.

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Schorl, C., O'Connell, B., Livne, K. and Sedivy, J.M. Kinetic analysis of cell cycle progression in *c-myc*-null fibroblasts - A major role in G1 and passage through the restriction point.

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Herbig, U., Wei, W., Jobling, W., Dutriaux, A. and Sedivy, J.M. Independent pathways regulate p21 and p16INK4a levels during replicative senescence in human fibroblasts.

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Guney, I., O'Connell, B.C. and Sedivy, J.M. Subcellular localization of cyclin D1-Cdk4 complexes in *c-myc*<sup>-/-</sup> Rat Fibroblasts.

Agrawal, P. and Sedivy, J.M. The slow growth phenotype of *c-myc* null fibroblasts is not an adaptive response to loss of c-Myc.

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Herbig, U. and Sedivy, J.M. Regulation of Growth Arrest in Senescent Human Fibroblasts and ATM<sup>-/-</sup> Cells.



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Schorl, C., Agrawal, P. and Sedivy, J.M. Analysis of conditional loss of c-Myc in mouse tail fibroblasts.

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Whiting, A.H. and Sedivy, J.M. Nucleostemin: A direct c-Myc target gene that may play a role in ribosome biogenesis.

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Jeyapalan, J.C., Ferreira, M., Sedivy, J.M. and Herbig, U. Accumulation of senescent cells in mitotic tissues of aging primates.

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Jeyapalan, J.C., Tan, Z and Sedivy, J.M. Elucidating the signaling pathways that induce and maintain the senescent state.

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Jeyapalan, J.C, Sexton, A and Sedivy, J.M. Spontaneous upregulation of telomere independent senescence in normal cells.

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Kreiling, J.A., Sexton, A., Munoz-Najar, U., Jeyapalan, J.C., Peterson, A. and Sedivy, J.M. Age-associated heterochromatinization in primate and murine tissues.

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**University of Texas Health Sciences University Nathan Shock Conference on Aging, October 2011, San Antonio, TX**

Hofmann, J.W. and Sedivy, J.M. The role of Myc in aging and inflammation.

Zhao, X., Hofmann, J.W. and Sedivy, J.M. Mechanisms of c-Myc in regulating metabolism and aging.

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Tamamori-Adachi M., Ito T., Manivannan J., Sedivy J.M. and Kreiling J.A. Age-associated reorganization of repressive heterochromatin.

**BioMed Central 3rd Beyond the Genome Conference, September 2012, Boston, MA**

Criscione, S.W, Sedivy, J.M. and Neretti, N. Development of a computational strategy to compare repetitive element enrichment between experimental conditions from high throughput sequencing datasets.

**Cold Spring Harbor Meeting on the Molecular Genetics of Aging, October 2012, Cold Spring Harbor, NY**

Criscione, S.W., De Cecco, M., Sedivy, J.M. and Neretti, N. Age-associated epigenetic and expression changes in repetitive elements from high-throughput sequencing data.

Ito, T., Gregg, Z. and Sedivy, J.M. Reduced Wnt signaling triggers senescence by upregulating the DNA damage response pathway.

Kreiling J.A., Hamm E. and Sedivy J.M. Reorganization of chromatin structure during normal aging.

De Cecco, M., Peckham, E.J., Criscione, S.W. and Sedivy, J.M. Rearrangement of chromatin conformation during replicative senescence of normal human diploid fibroblasts.

**Wellcome Trust Scientific Conference on Cell Senescence in Ageing and Cancer, July 2013, Hinxton, UK**

De Cecco, M., Kreiling, J.A. and Sedivy, J.M. Activation of transcription and transposition of retrotransposable elements during aging of mouse tissues.

**National MD/PhD Student Conference, August 2013, Keystone, CO**

Hofmann, J.W. and Sedivy, J.M. Myc haploinsufficiency increases longevity and inhibits effects of aging.

**Cold Spring Harbor Asia Conference on the Molecular Basis of Aging and Disease, September 2013, Suzhou, China**

Zhao, X. and Sedivy, J.M. Mechanisms by which c-Myc regulates cellular metabolism and aging.

**Cold Spring Harbor Genome Informatics Conference, October 2013, Cold Spring Harbor, NY**

Criscione, S.W., De Cecco, M., Thompson, W., Kreiling, J.A., Sedivy, J.M. and Neretti, N. A genome-wide survey of the transcriptional landscape of repetitive elements and their age-associated expression changes.

**Cold Spring Harbor Mobile Elements Regional Meeting, October 2013, Cold Spring Harbor, NY**

Criscione, S.W., De Cecco, M., Thompson, W., Kreiling, J.A., Sedivy, J.M. and Neretti, N. A new method to estimate repetitive enrichment reveals age-associated changes in retrotransposon expression.

Kreiling J.A., De Cecco M., Criscione S.W., Neretti N. and Sedivy J.M. Murine endogenous retrotransposons lose epigenetic silencing with age.

De Cecco, M., Criscione, S.W., Kreiling, J.A. Neretti, N. and Sedivy, J.M. Global epigenetic changes and derepression of transposable elements in replicative senescence.

**Keystone Symposia Conference on Mobile Genetic Elements and Genome Evolution, March 2014, Santa Fe, NM**

Sedivy, J.M., Kreiling, J.A., Neretti, N., De Cecco, M. and Criscione, S.W. Retrotransposable elements become active and mobile in the genomes of aging mammalian somatic tissues.

**Cold Spring Harbor Molecular Genetics of Aging, October 2014, Cold Spring Harbor, NY**

De Cecco, M., Criscione, S.W. and Sedivy, J.M. Identifying a few needles in the haystack—A subset of endogenous retrotransposons are actively expressed during replicative senescence of normal human diploid fibroblasts.

Criscione, S.W., De Cecco, M., Siranosian, B.A., Sedivy, J.M. and Neretti, N. Downstream consequences of chromatin alterations in replicatively senescent cells.

Ito, T. and Sedivy, J.M. Reduced EZH2 triggers cellular senescence through H3K27me3-independent and H3K27me3-dependent pathways.

Kreiling, J.A., De Cecco, M., Criscione, S.W., Neretti, N. and Sedivy, J.M. Age-associated deregulation of a cluster of miRNAs located in a highly heterochromatic region of the mouse X-chromosome.

De Cecco, M., Criscione, S.W., Siranosian, B.A., Sedivy, J.M. and Neretti, N. Changes in nuclear organization in cellular senescence.

Zhao, X., Hofmann, J.W., Peterson, A L. and Sedivy, J.M. Mechanisms by which c-Myc regulates metabolism and aging.

**Northeastern Glenn Symposium on the Biology of Aging, June 2015, University of Connecticut, Farmington, CT**

De Cecco, M. and Sedivy, J.M. When sleeping dogs awaken: chromatin rearrangements in replicative senescence lead to endogenous retrotransposon activity.

**Biology of Aging Gordon Research Conference, July 2015, Sunday River, ME**

Kreiling, J.A. and Sedivy, J.M. De-repression of a Cluster of miRNAs Located in a Highly Heterochromatic Region of the Mouse X-Chromosome in Aged Mouse Liver.

**Jacques Monod Series: Comparative Biology of Aging, October 2015, Roscoff, France**

De Cecco, M., Criscione, S.W., Kreiling, J.A., Neretti, N. and Sedivy J.M. When sleeping dogs awaken: chromatin rearrangements in replicative senescence lead to endogenous retrotransposon activity.

**Cold Spring Harbor Genome Informatics, October 2015, Cold Spring Harbor, NY**

Criscione, S.W., Zhang, Y., Siranosian, B., De Cecco, M., Sedivy, J.M. and Neretti, N. Comparison of chromosome structure across conditions using a 3D chromosome browser.

**Rhode Island IDEa Symposium, March 2016, Providence, RI**

De Cecco, M., Criscione, S.W. and Sedivy, J.M. Architectural changes in genomes and derepression of transposable elements during replicative senescence of human fibroblasts.

**American Federation for Aging Research (AFAR) 2016 Scientific Conference, June 2016, Santa Barbara, CA**

De Cecco, M. and Sedivy, J.M. Sleeping dogs awaken: chromatin rearrangements lead to endogenous retrotransposon activity.

**Cold Spring Harbor Molecular Genetics of Aging, September 2016, Cold Spring Harbor, NY**

De Cecco, M., Criscione, S.W., Kreiling, J.A., Neretti, N. and Sedivy J.M. Architectural changes in genomes and derepression of transposable elements during replicative senescence of human fibroblasts.

Ito, T. and Sedivy, J.M. Epigenetic regulation of cellular senescence by WNT-MYC-Polycomb signaling.

Kreiling, J.A., Golomb-Mello, G., and Sedivy, J.M. Members of the miR465 family increase expression with age in mouse liver and influence the growth hormone receptor pathway.

Petrashen, A. and Sedivy, J.M. Translational regulation of insulin-like growth factor 1 by MYC.

Woodham, T. and Sedivy, J.S. Investigating the role of constitutive heterochromatin as heterochromatin factor storage depots for rapid response to genomic stress.

**Keystone Symposia Meeting on Viral Immunity: Mechanisms and Consequences, February 2017, Santa Fe, NM**

De Cecco, M. and Sedivy, J.M. LINE-1 elements escape repression in senescent cells and trigger a Type-I Interferon response.

**Gordon Research Conference on IGF & Insulin System in Physiology and Disease, March 2017, Ventura Beach, CA**

Petrashen, A. and Sedivy, J.M. Tissue-specific translational regulation of insulin-like growth factor 1 by MYC.

**Gordon Research Conference on the Biology of Aging, July 2017, Les Diablerets, Switzerland**

De Cecco, M. and Sedivy, J.M. Chromatin rearrangements and endogenous retroelements de-repression during cellular senescence.

**Mobile Genetic Elements Conference, August 2017, MBL, Woods Hole, MA**

Newton, J.C., Jogl, G. and Sedivy, J.M. Exploring the mechanisms of LINE-1 inhibition by nucleoside reverse transcriptase inhibitors.

**Northeastern Structure Symposium, University of Connecticut, Storrs, CT**

Newton, J.C., Jogl, G. and Sedivy, J.M. Exploring the mechanisms of LINE-1 inhibition by nucleoside reverse transcriptase inhibitors.

**Experimental Biology Meeting, April 2018, San Diego, CA**

Baggett, B.C., Murphy, K.R., Cao, Y., Turan, N., Lu, Y., Sedivy, J.M. and Koren, G. The role of myofibroblast senescence in arrhythmogenesis of the aged infarcted heart.

**PATENTS**

Title: Kinase Inhibitors and Methods of Use in Screening Assays and Modulation of Cell Proliferation and Growth  
Inventors: John M. Sedivy, Ph.D., Brown University  
Walter Kolch, M.D., Beatson Institute for Cancer Research, Glasgow, UK

Kam Chi Yeung, Ph.D., Medical College of Ohio, Toledo  
Status: Patent 6,864,224, issued March 8, 2005.

## INVITED PRESENTATIONS

### Institutions

- 1988–1993
- Creative Biomolecules, Inc., Hopkinton, MA
  - Genzyme, Inc., Framingham, MA
  - University of California, San Diego, CA
  - University of Connecticut, Farmington, CT
  - University of Indiana, Bloomington, IN
- 1994
- Brown University, Providence, RI
  - Creative Biomolecules, Inc., Hopkinton, MA
  - Duke University, Durham, NC
  - Immunogen Inc., Cambridge, MA
  - MIT, Cambridge, MA
- 1995
- Jefferson Cancer Center, Philadelphia, PA
  - Johnson & Johnson, Inc., Raritan, NJ
  - Mass General Hospital, Boston, MA
- 1996
- MacMaster University, Hamilton, Canada
  - Ontario Cancer Institute, Toronto, Canada
  - Tufts Medical Center, Boston, MA
  - York University, Toronto, Canada
- 1997
- Ariad Pharmaceutical, Inc., Cambridge, MA
  - Lawrence Berkeley National Laboratory, Berkeley, CA
  - Burnham Institute, La Jolla, CA
  - Dana Farber Cancer Institute, Boston, MA
  - DNAX Inc., San Francisco, CA
  - Eli Lilly, Inc., Indianapolis, IN
  - Fred Hutchinson Cancer Center, Seattle, WA
  - Genentech, Inc., San Francisco, CA
  - Oregon Health Sciences University, Portland, OR
  - University of California, San Diego, CA
  - University of Florida, Gainesville, FL
  - University of Virginia, Charlottesville, VA
- 1998
- Tufts Medical Center, Boston, MA
  - Albert Einstein College of Medicine, Bronx, NY
  - Universität Marburg, Marburg, Germany
  - Swiss Institute for Experimental Cancer Research, Lausanne, Switzerland
  - University of Massachusetts, Amherst, MA
  - Genetics Institute, Inc., Cambridge, MA
  - Eli Lilly, Inc., Indianapolis, IN
  - University of Texas Southwestern Medical Center, Dallas, TX

- 1999
  - University of British Columbia, Vancouver, Canada
  - Pfizer Pharmaceuticals, Groton, CT
  - Rutgers University, Piscataway, NJ
  - Millenium Pharmaceuticals, Cambridge, MA
  
- 2000
  - Baylor College of Medicine, Houston, TX
  - State University of New York, Syracuse, NY
  - Yale University, New Haven, CT
  - Ludwig Institute, London, UK
  
- 2001
  - University of Kentucky, Lexington, KY
  - University of Jerusalem, Jerusalem, Israel
  - University of Dundee, Dundee, UK
  - Advanced Cell Technology, Inc., Worcester, MA
  
- 2002
  - Dupont Pharmaceuticals, Inc.
  - University of Rhode Island, Kingstown, RI
  - Abbott Laboratories, Chicage, IL
  
- 2003
  - University of Conecticut, Farmington, CT
  - University of Illinois, Chicago, IL
  - Mt. Sinai School of Medicine, New York, NY
  - Rhode Island Hospital, Providence, RI
  
- 2004
  - University of California, San Francisco, CA
  - Harvard Medical School, Boston, MA
  - Washington University, St. Louis, MO
  - Virginia Commonwealth University, Norfolk, VA
  - Fox Chase Cancer Center, Philadelphia, PA
  
- 2005
  - Yale School of Medicine, New Haven, CT
  - Massachusetts General Hospital Cancer Center, Boston, MA
  - Lawrence Berkeley National Lab, Berkeley, CA
  
- 2006
  - Harvard Medical School, Boston, MA
  - Roger Williams Medical Center, Providence, RI
  - Tufts School of Medicine, Boston, MA
  - European Institute of Oncology, Milan, Italy
  - University of Rhode Island, Kingstown, RI
  - Lawrence Berkeley National Laboratory, Berkeley, CA
  - Medical College of Ohio, Toledo, OH
  - University of Massachusetts Medical School. Worcester, MA
  
- 2007
  - Liver Research Center, Lifespan Medical Center, Providence, RI
  - University of Bologna, Bologna, Italy
  - University of Minnesota, Minneapolis, MN
  - University of Wisconsin, Madison, WI
  - Fred Hutchinson Cancer Research Center, Seattle, WA

- Stowers Institute, Kansas City, MO
  - University of Rochester, Rochester, NY
  - University of Medicine and Dentistry of New Jersey, Newark, NJ
  - Lady Davis Institute for Medical Research, McGill University, Montreal
- 2008
- Vanderbilt University, Nashville, TN
  - University of Pittsburgh, Pittsburg, PA
  - Drexel University, Philadelphia, PA
  - Baylor College of Medicine, Houston, TX
  - Leiden University, Leiden, The Netherlands
- 2009
- Beatson Institute, Glasgow, UK
  - Tulane University, New Orleans, LA
- 2010
- Uppsala University, Uppsala, Sweden
  - Ontario Cancer Institute, Toronto, Canada
  - Teikyo University School of Medicine, Tokyo, Japan
  - University of Texas Health Sciences Center, San Antonio, TX
  - Austrian Academy of Sciences, Innsbruck, Austria
  - University of Salzburg, Salzburg, Austria
  - University of Natural Resources and Life Sciences, Vienna, Austria
- 2011
- Mayo Clinic, Rochester, MN
  - University of Pennsylvania, Philadelphia, PA
  - Fox Chase Cancer Center, Philadelphia, PA
- 2012
- Children's Medical Research Institute, University of Sydney, Sydney, Australia
  - Barshop Institute, University of Texas Health Science Center, San Antonio, TX
  - Dicerna Pharmaceuticals, Inc., Watertown, MA
  - Bogazici University, Istanbul, Turkey
- 2013
- Yale School of Medicine, New Haven, CT
  - University of Konstanz, Konstanz, Germany
  - Newcastle University, Newcastle, UK
  - Yonsei University, Seoul, Korea
  - University of Rochester
  - Buck Institute for Research on Aging, Novato, CA
- 2014
- Baylor College of Medicine, Houston, TX
  - University of Southern California, Los Angeles, CA
  - Stanford University, Palo Alto, CA
- 2015
- University of Massachusetts Medical School, Worcester, MA
  - University of Cambridge, Cambridge, UK
  - Ontario Cancer Institute, University of Toronto, Toronto, Canada
  - Rhode Island Hospital, Providence, RI
- 2016
- Leibniz Institute on Aging, Jena, Germany
  - Max Planck Institute for Biology of Ageing, Cologne, Germany



- University of Hong Kong, Hong Kong, China
  - Chinese Academy of Sciences, Shanghai, China
  - University of Bologna, Bologna, Italy
- 2017
- Yale University, New Haven, CT
  - Scripps Research Institute, Jupiter, FL
  - Teikyo University, Tokyo, Japan
  - Calico Life Sciences LLC, South San Francisco, CA
  - Albert Einstein College of Medicine, Bronx, NY
- 2018
- University of Osaka, Osaka, Japan
  - University of Bologna Summer School Programme, Bologna, Italy
  - Chinese Academy of Sciences, Beijing, China
  - Ulsan National Institute for Science and Technology, Ulsan, Korea
- 2019
- University of British Columbia, Vancouver, Canada
  - Leibniz Institute on Aging, Jena, Germany
  - Joslin Diabetes Clinic, Harvard Medical School, Boston, MA

### **Meetings**

- 1991
- 3rd. Annual Meeting of the Japanese Association for Animal Cell Technology, Kyoto, Japan
- 1995
- Gordon Conference on Cell Proliferation
- 1997
- 13th. Annual Meeting on Oncogenes, Frederick, MD
- 1998
- Biology of Aging Meeting, Cold Spring Harbor, NY
  - Massachusetts Biotechnology Council, Boston, MA
- 1999
- American Society for Biochemistry and Molecular Biology, International Meeting, San Francisco, CA
  - Office of Vaccines Research and Review, Centers for Biologics Evaluation and Research, and U.S. Food and Drug Administration: joint meeting on Novel Cell Substrates for Vaccine Production, Washington, DC
  - Geron Symposium on Advances in Embryonic Stem Cell and Nuclear Transfer Technologies, Asilomar, CA
  - MIT Genome Center Target Validation Meeting, Boston, MA
- 2000
- American Association for Cancer Research Special Conference on Transcription Factor Pathogenesis of Cancer at the Lillienium, Laguna Beach, CA
  - Telomerase and Telomere Dynamics in Cancer and Aging, San Francisco, CA
  - Symposium on Therapeutic Applications of Human Stem and Precursor Cells, Hannover, Germany
  - European Tissue Culture Society and European Society for Animal Cell Technology joint Workshop on Gene Manipulation in Animal Cells, Bristol, UK
  - UK Molecular Biology & Cancer Network Genes and Cancer Meeting XVI, University of Warwick, Coventry, UK

- 2001
  - Beatson International Cancer Conference, Glasgow, UK
  - The 2001 Spring School in Jerusalem "The Cell Cycle and Cancer", Jerusalem, Israel
  - 5th Gene Delivery and Cellular Protein Expression Conference, Semmering, Austria
  - Gerontological Society of America, 2001 Annual Meeting, Chicago, IL
  - NIH Workshop on Hutchinson-Gilford Progeria, Bethesda, MD
- 2002
  - Banbury Conference on Cellular Immortalization, Cold Spring Harbor Laboratory, NY
  - AACR Special Conference on The Role of Telomeres and Telomerase in Cancer, San Francisco, CA
- 2004
  - Gordon Conference on the Biology of Aging, Aussois, France
  - AACR Special Conference on The Role of Telomeres and Telomerase in Cancer, San Francisco, CA
- 2005
  - NIA Special Workshop on Cellular Senescence and Extracellular Matrix, Buck Institute, Novato, CA
  - L'Oreal Symposium on Cutaneous Biology, Harvard Medical School, Boston, MA
- 2006
  - 3rd International Conference on the Functional Genomics of Aging, Palermo, Italy
  - ESF-WellcomeTrust Conference on Signalling to Chromatin: Epigenetics, Hixton, UK
- 2007
  - Gordon Research Conference on Oxidative Stress and Disease, Ventura, CA
  - 12th. Congress of the International Association for Biomedical Gerontology, Spetses, Greece
  - 16th Annual Growth Factor and Signal Transduction Symposium on Senescence, Aging and Cancer, Ames, IA
  - International Meeting of the German Genetics Society, Genetics of Aging, Jena, Germany
- 2008
  - International Workshop: Cellular Senescence: The Future of Ageing?, Oriel College, Oxford University, Oxford, UK
  - Biology of Aging Summit, National Institute on Aging, National Institutes of Health, Bethesda, MD
  - Molecular Genetics of Aging, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
  - Keynote Lecture for Aging and Anti-Aging Symposium, 9th International Congress of Cell Biology, Seoul, Korea
- 2009
  - Cancer Research UK Workshop on Cellular Senescence, London, UK
  - Angiomyogenesis and Cell Therapy Symposium, at the Cardiovascular Research Technologies 2009 Meeting in Washington, DC
  - NIA Special Workshop on Epigenetic Regulation of Aging and Functional Consequences, Santa Barbara, CA
- 2010
  - LINK-AGE Conference on Ageing – A Meeting of European Research Projects on Biogerontology, Brussels, Belgium

- First International Workshop on Prognostic and Therapeutic Applications of RKIP in Cancer, University of California Los Angeles, Los Angeles, CA
  - American Aging Association's 39th Annual Meeting, Portland, Oregon
  - The Next Step in Aging Research: From Bench to Bedside. Organized by the Mayo Clinic in Redwing, MN
  - Gordon Research Conference on the Biology of Aging, Les Diablerets, Switzerland
  - Annual Meeting of the American Society on Cell Biology, Washington, DC
- 2011
- Paul F. Glenn Symposium on Aging, Harvard Medical School, Boston, MA
  - Ellison Biology of Aging Colloquium, Woods Hole, MA
  - Banbury Center Meeting on Myc and the Pathway to Cancer, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
- 2012
- Gordon Research Conference on the Biology of Aging, Ventura Beach, CA
  - American Aging Association 41st Annual Meeting, Dallas, TX
  - NIA Special Workshop on Epigenetic Regulation of Aging, Bethesda, MD
  - Molecular Genetics of Aging, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
  - Robert and Arlene Kogod 3rd Annual Conference on Aging, Mayo Clinic, Rochester, MN
- 2013
- NCI Special Workshop on Provocative Questions in Cancer, Bethesda, MD
  - Chair, NIA Special Workshop on DNA Damage, Repair and Cellular Senescence, Bethesda, MD
  - IAGG World Congress of Gerontology and Geriatrics, Organizer and Speaker of Presidential Symposium on the Epigenetics of Aging, Seoul, Korea
  - Wellcome Trust Scientific Conference on Cell Senescence in Ageing and Cancer, Hinxton, UK
  - Co-Chair, Gordon Research Conference on the Biology of Aging, Il Ciocco, Italy
  - British Society for Research on Ageing Annual Scientific Meeting, Norwich, UK
  - 6th SENS Research Foundation Conference on Strategies for Engineered Negligible Senescence, Cambridge, UK
  - Banbury Center Meeting on Telomeres and Disease, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
  - Ettore Majorana Foundation and Centre for Scientific Culture, Workshop on Interventions to Slow Aging in Humans, Erice, Italy
  - Alliance for Healthy Aging Symposium on Molecular Mechanisms of Age-Related Multi Morbidity, Groningen, Netherlands
  - Gerontological Society of America Annual Scientific Meeting, Chair of Biological Sciences Section Symposium on Cellular Senescence and Inflammation, New Orleans, LA
- 2014
- Therapeutic Approaches for Extending Heathspan, Scripps Research Institute, Jupiter, FL
  - Connecting the Biological and Physical Principles of Mammalian Aging, NSF-Rice University Workshop, Arlington, VA

- Chair, NIA Special Workshop on 3D Chromatin and its Interaction with Nuclear Structures in Aging, Bethesda, MD
  - Cold Spring Harbor Meeting on the Molecular Genetics of Aging, Cold Spring Harbor, NY
  - Pittsburgh–Munich International Lung Conference, Pittsburgh, PA
- 2015
- AACR Special Conference on Myc: From biology to therapy, La Jolla, CA
  - AACR National Conference, Philadelphia, PA
  - Wellcome Trust Conference on Healthy aging: From molecules to organisms, Sanger Center, Hinxton, UK
  - FASEB Conference on Mammalian Mobile Genetic Elements, West Palm Beach, FL
  - NCI Workshop on Mobile Genetic Elements in Cancer, Bethesda, MD
  - Nature Medicine Herrenhausen Symposium on Aging: Cellular mechanisms and therapeutic opportunities, Hanover, Germany
  - Nature Conference on Epigenetics in Cancer and Aging, Beijing, China
  - J.B. Little Symposium on Mitochondria and Oxidative Stress in Health and Disease, Harvard School of Public Health, Boston, MA
  - Molecular Biology of Aging Meeting, Groningen, Netherlands
  - Brown-Tufts CFAR Annual Meeting, Tufts Medical School, Boston, MA
- 2016
- NCI Workshop on Oncogenic Senescence, Bethesda, MD
  - Cell Symposium on Aging and Senescence, Barcelona, Spain
  - Cold Spring Harbor Meeting on the Mechanisms of Aging, Cold Spring Harbor, NY
- 2017
- 2nd Interventions in Aging Conference, Cancun, Mexico
  - Keystone Symposia Meeting on Aging and Mechanisms of Aging-Related Disease, Yokohama, Japan
  - Gordon Research Conference on the Biology of Aging, Les Diablerets, Switzerland
  - Mobile Genetic Elements Conference, Marine Biological Laboratory, Woods Hole, MA
  - IUBMB Focused Meeting on Molecular Aspects of Aging and Longevity, plenary lecture, Athens, Greece
  - Cold Spring Asia Meeting on Stem Cells, Aging and Rejuvenation, Suzhou, China
- 2018
- 13th International Symposium on Geriatrics and Gerontology, Aichi, Japan
  - NCI workshop on Frontiers in Targeting MYC: Expression, Regulation and Degradation, Bethesda, MD
  - International Conference on Interventions to Extend Healthspan and Lifespan, Kazan, Russia
  - Jena Aging Meeting, Jena, Germany
  - Cell Symposium on Aging and Metabolism, Barcelona, Spain
  - FASEB Conference on Transcription, Chromatin and Epigenetics, Florence, Italy
  - 4th International Symposium on Genetics of Aging and Life History, Daegu, Korea
- 2019
- Telluride Workshop on Physical Genomics and Transcriptional Engineering, Telluride, CO
  - International Forum on Aging, Beijing, China
  - 48th Annual Meeting of the American Aging Association, San Francisco, CA
  - NIA Summer Training Course in Aging Research, Oklahoma City, OK

- Nature Conference on Ageing, Healthspan and Rejuvenation, Rotterdam, Netherlands
- International Cell Senescence Association Conference on Cellular Senescence: The Bright and the Dark Side, Athens, Greece
- Cold Spring Harbor Asia Meeting on Stem Cells, Aging and Rejuvenation