CURRICULUM VITAE

JOHN MICHAEL SEDIVY

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TITLE

Hermon C. Bumpus Chair in Biology

Professor of Medical Science
Department of Molecular Biology, Cell Biology and Biochemistry
Brown University

ACADEMIC DEGREES

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

PROFESSIONAL APPOINTMENTS

1984–1988	Postdoctoral Fellow, Massachusetts Institute of Technology, Phillip 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

RESEARCH INTERESTS

Aging, cellular senescence, c-Myc proto-oncogene, epigenetics, transposition

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	Hermon C. Bumpus endowed chair in Biology
2008	Ellison Medical Foundation Senior Scholar in Aging

2009	NIH MERIT Award
2011	Glenn Award for Research in Biological Mechanisms of Aging
2012	Chair, Cellular Mechanisms of Aging and Development (CMAD) Study Section
2015	Chair, Biology of Aging Gordon Conference

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association for Cancer Research
American Society for Microbiology
American Society for Biochemistry and Molecular Biology

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 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 4 years; 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

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	Elected as Chair of the Biology of Aging Gordon Conference that will take place in February 2015, Ventura Beach, CA

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 Cell*, Senior Editorial Board Member 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	3 manuscripts reviewed: Cell (1), Molecular Biology of the Cell (1), Cell Cycle (1), Mechanisms of Aging and Development (1)

Consulting Agreements

1986-1988	Biogen Inc., Cambridge, MA
1992-1994	Creative Biomolecules, Hopkinton, MA
2000–2002	Millenium Pharmaceuticals, Cambridge, MA
2012–present	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", External Advisory Committee.

2003–2006	Lifespan Academic Medical Center, Providence, RI, "COBRE for Cancer Research Development", D. Hixson P.I., External Advisory Committee.
2005-present	Yale School of Medicine, New Haven, CT, "Molecular Basis of Viral and Cellular Transformation Program Project", D. DiMaio P.I., External Advisory Committee.
2007-present	Women and Infants Hospital, Providence, RI, "COBRE for Perinatal Biology", J. Padbury P.I., External Advisory Committe.
2009-present	European Community FP7 Consortium Project MARK-AGE, "Biomarkers of Human Aging", A. Buerkle, P.I., University of Konstanz, Konstanz, Germany, External Advisory Committee.
2010-present	University of Pennsylvania, Philadelphia, PA, "Epigenetics and Aging Program Project", S. Berger P.I., External Advisory Committee.

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

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
Swebelius 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–present	Steering Committee Laboratories for Molecular Medicine Member
2004–present	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-present	Biomedical Engineering Executive Advisory Council Center for Biomedical Engineering Brown University
2009	Graduate Admissions Program Committee, MCB Department Member
2010-present	Graduate Admissions Program 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	Principal Investigator of T32 training grant in the Biology of Aging, and Director of the Aging Track in the MCB Graduate Program

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–present	Leroy Cooper, MPPB (Gideon Koren, supervisor)
2009–present	Rachel Whitaker, MCB (Stephen Helfand, supervisor)
2010–present	Jeffrey Hofmann, MCB (John Sedivy, thesis supervisor)
2010–present	Xiaoai Zhao, Pathobiology (John Sedivy, thesis supervisor
2011–present	Takahiro Ito, MCB (John Sedivy, thesis supervisor)
2011–present	Sherida Ramahan, Pathobiology (Devasis Chatterjee, thesis supervisor)
2011–present	Kun Yang, Pathobiology (Qian Chen, 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)

Undergraduate Advising (Brown only)

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

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 lectures
Enrollment: 8

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 Lowel
2010-2010 Riyad Seervai

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–present	Xiaoai Zhao
2010–present	Jeffrey Hofmann
2011_present	Takahiro Ito
2011–present	Sherida Ramahan
2012–present	Steven Criscione

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

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–present	Marco DeCecco

Clinical Fellows

2009-2011	Gregory Zach

Investigators

2001–2005	Carl Simkevich
2009–2012	Ursula Munoz-Najar
2011–2012	Jessie Chandika Jeyapalan

Assistant Professors (Research)

1997–2001	Kam Yeung
2008–present	Jill Kreiling

Associate Professors (Research)

1994–1997	Peter Rabinovich

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 MedicalUniversity, Tokyo, Japan
2013	Luca Pagliaroli, 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):
Principal Investigator: John Sedivy, as of 05/01/06: Walter Atwood

Agency: National Institutes of Health
Type: R01 GM41690-15-18
Period: 07/01/03-06/30/07
Title: *Genetic studies of c-myc gene function in the cell cycle*
No cost extension until 06/30/08
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 AG16694-06-10
Period: 05/01/04-04/30/09
Title: *Effectors of senescent states in human fibroblasts*
Direct costs current year: 185,843
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 current year: 150,000
Principal Investigator: John Sedivy

Agency: Ellison Medical Foundation
Type: Private
Period: 01/01/08-12/31/2012
Title: *The role of cellular senescence in the aging of mammals*
Direct costs current year: 150,000
Principal Investigator: John Sedivy

Current

Agency: National Institutes of Health
Type: R37 AG16694-14 (MERIT Award)

Period: 05/01/09-04/30/14
Title: *Effectors of senescent states*
Direct costs current year: 205,000
Principal Investigator: John Sedivy

Agency: National Institutes of Health
Type: R01 AG035328-03
Period: 10/01/09-09/30/13
Title: *The Wnt-chromatin axis in aging*
Direct costs current year: 200,000
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 current year: 30,000
Principal Investigator: John Sedivy

Agency: National Institutes of Health
Type: T32 AG041688-01
Period: 7/01/12-06/30/17
Title: *Predoctoral Training in the Molecular Biology of Aging*
Direct costs current year: 84,000
Principal Investigator: John Sedivy

Pending

None

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

MD/PhD Student Research Fellowships Awarded to Trainees

Jeffrey Hofmann	NRSA Individual Predoctoral MD/PhD Fellowship, F30 AG035592

Medical Student Research Fellowships Awarded to Trainees

Clara Kim	Howard Hughes Medical Student Research Fellowship

Career Development Awards to Mentees

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

PUBLICATIONS (132 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: 978-1-4419-1074-5).

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).

Refereed Reviews and Methods Chapters

1. Sedivy, J.M. (1988). New genetic methods for mammalian cells. *Bio/Technology*, **6**: 1192-1196.

2. Sedivy, J.M. (1991). Pilot scale protein production using inducible gene amplification. In: *Animal Cell Culture and Production of Biologicals*, R. Sasaki and K. Ikura (eds.), Kluwer Academic Publishers, Dordrecht, Netherlands, pp. 251-258.

3. Sedivy, J.M. (1998). Can ends justify the means?: Telomeres and the mechanisms of replicative senescence and immortalization in mammalian cells. *Proc. Natl. Acad. Sci. USA,* **95**: 9078-9081.

4. Sedivy, J.M. and Dutriaux, A. (1999). Gene targeting and somatic cell genetics: a rebirth or a coming of age? *Trends Genet.* **14**: 88-90.

5. Obaya, A.J., Mateyak, M.K. and Sedivy, J.M. (1999). Mysterious liaisons: the relationship between c-Myc and the cell cycle. *Oncogene* **18**: 2934-2941.

6. Sedivy, J.M. (2001). The cellular immortalization process: relevant issues for the generation of cell substrates for production of vaccines and other biologicals. In: F. Brown, A.M. Lewis, K. Peden and P. Krause (eds.), Evolving Sientific and Regulatory Perspectives on Cell Substrates for Vaccine Development. *Dev. Biol. (Basel)* **106**: 479-488.

7. Obaya, A.J. and Sedivy, J.M. (2002). Regulation of Cyclin-Cdk Activity in Mammalian Cells. *Cell. Mol. Life Sci.* **59**: 126-142.

8. Hemmer, R.M., Wei, W., Dutriaux, A. and Sedivy, J.M. (2003). Somatic cell knockouts of tumor suppressor genes. In: *Methods in Molecular Biology*, vol. 223, Tumor Suppressor Genes. Wafik S. El-Deiry, Editor. Humana Press, Totowa, New Jersey, USA. pp. 187-206.

9. Collins, C.J. and Sedivy, J.M. (2003). Involvement of the INK4a/ARF gene locus in senescence. *Aging Cell* **2:** 145-150.

10. Herbig, U. and Sedivy, J.M. (2006). Regulation of growth arrest in senescence: telomere damage is not the end of the story. *Mech. Ageing Dev.* **127**: 16-24 (PMID: 16229875).

11. Guney, I. and Sedivy, J.M. (2006). Cellular senescence, epigenetic switches and c-Myc. *Cell Cycle* **5**: 2319-2323 (PMID: 17102614).

12. Schorl, C. and Sedivy, J.M. (2007). Analysis of cell cycle phases and progression in cultured mammalian cells. *Methods* **41**: 143-150 (PMID: 17189856).

13. Sedivy, J.M., Munoz-Najar, U.M., Jeyapalan, J.C. and Campisi, J. (2007). Cellular senescence: A link between tumor suppression and organismal aging? In: *The Molecular Biology of Aging*, L. Guarente and L. Partridge, Eds., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.

14. de Magalhaes, J.P., Sedivy, J.M., Finch, C.E., Austad, S.N. and Church, G.M. (2007). A proposal to sequence genomes of unique interest for research on aging. J. Gerontol. A. Biol. Sci. Med. Sci. **62**: 583-584 (PMID: 17595413).

15. Klysik, J., Theroux, S.J., Sedivy, J.M., Moffit, J.S. and Boekelheide, K. (2008). Signaling crossroads: The function of Raf kinase inhibitory protein in cancer, the central nervous system and reproduction. *Cell Signal*. **20**: 1-9 (PMID: 17706925).

16. Sedivy, J.M., Banumathy, G. and Adams, P.D. (2008). Aging by epigenetics – A consequence of chromatin damage? *Exp. Cell Res*. **314**: 1909-1917 (PMID: 18423606).

17. Jeyapalan, J.C. and Sedivy, J.M. (2008). Cellular senescence and organismal aging. *Mech. Ageing Dev*. **129:** 467-474 (PMID: 18502472).

18. Munoz-Najar, U. and Sedivy, J.M. (2011). Epigenetic control of aging. *Antioxid. Redox Signal*. **14:** 241-259 (PMID: 20518699).

19. Sedivy, J.M. (2011). Phosphatidylethanolamine Binding Protein aka Raf Kinase Inhibitor Protein: a brief history of its discovery and the remarkable diversity of biological functions. *Forum. Immunopathol. Dis. Therap*. **2:** 1-12.

Refereed Research Articles

1. Goldstein, R., Sedivy, J.M. and Ljungquist, E. (1982). Propagation of satellite phage P4 as a plasmid. *Proc. Natl. Acad. Sci. USA* **79**: 515-519.

2. Geisselsoder, J., Sedivy, J.M., Walsh, R.B. and Goldstein, R. (1982). Capsid structure of satellite phage P4 and its P2 helper. *J. Ultrastruct. Res*. **79**: 165-173.

3. Sedivy, J.M., Daldal, F. and Fraenkel, D.G. (1984). Fructose bisphosphatase of *Escherichia coli*: Cloning of the structural gene (*fbp*) and preparation of a chromosomal deletion. *J. Bacteriol*. **158**: 1048-1053.

4. Sedivy, J.M. and Fraenkel, D.G. (1985). Fructose bisphosphatase of *Saccharomyces cerevisiae*: cloning, disruption and regulation of the *FBP1* gene. *J. Mol. Biol.* **186**: 307-319.

5. Sedivy, J.M., Babul, J. and Fraenkel, D.G. (1986). AMP-insensitive fructose bisphosphatase in *Escherichia coli* and its consequences. *Proc. Natl. Acad. Sci. USA* **83**: 1656-1659.

6. Capone, J.P., Sedivy, J.M., Sharp, P.A. and RajBhandary, U.L. (1986). Introduction of UAG, UAA and UGA nonsense mutations at a specific site in the *Escherichia coli* chloramphenicol acetyltransferase gene: use in measurement of amber, ochre and opal suppression in mammalian cells. *Mol. Cell. Biol.* **6**: 3059-3067.

7. Sedivy, J.M., Capone, J.P., RajBhandary, U.L. and Sharp, P.A. (1987). An inducible mammalian amber suppressor: propagation of a poliovirus mutant. *Cell* **50**: 379-389.

8. Sedivy, J.M. and Sharp, P.A. (1989). Positive genetic selection for gene disruption in mammalian cells by homologous recombination. *Proc. Natl. Acad. Sci. USA* **86**: 227-231.

9. Schnipper, L.E., Chan, V., Sedivy, J.M., Jat, P.S. and Sharp, P.A. (1989). Gene activation by induced DNA rearrangements. *Cancer Res.* **49**: 6640-6644.

10. Leonardo, E.D. and Sedivy, J.M. (1990). A new vector for cloning large eukaryotic DNA segments in *E. coli*. *Bio/Technology* **8**: 841-844.

11. Prouty, S.M., Hanson, K.D., Boyle, A.L., Brown, J.R., Shichiri, M., Follansbee, M.R., Kang, W. and Sedivy, J.M. (1993). A cell culture model system for genetic analyses of the cell cycle by targeted homologous recombination. *Oncogene* **8**: 899-907.

12. Shichiri, M., Hanson, K.D. and Sedivy, J.M. (1993). The effects of c-*myc* expression on proliferation, quiescence, and the G_0 to G_1 transition in nontransformed cells. *Cell Growth Diff.* **4**: 93-104.

13. Li, S. and Sedivy, J.M. (1993). Raf-1 protein kinase activates the NF-κB transcription factor by dissociating the cytoplasmic NF-κB/IκB complex. *Proc. Natl. Acad. Sci. USA* **90**: 9247-9251.

14. Karantza, V., Maroo, A., Fay, D. and Sedivy, J.M. (1993). Overproduction of Rb protein after the G_1/S boundary causes G_2 arrest. *Mol. Cell. Biol.* **13**: 6640-6652.

15. Hanson, K.D., Shichiri, M., Follansbee, M.R. and Sedivy, J.M. (1994). Effects of c-*myc* expression on cell cycle progression. *Mol. Cell. Biol.* **14**: 5748-5755.

16. Hanson, K.D., and Sedivy, J.M. (1995). Analysis of biological selections for high efficiency gene targeting. *Mol. Cell. Biol.* **15**: 45-51.

17. Li, S., Janosch, P., Tanji, M., Rosenfeld, G.C., Waymire, J.C., Mischak, H., Kolch, W. and Sedivy, J.M. (1995). Regulation of Raf-1 kinase activity by the 14-3-3 family of proteins. *EMBO J.*, **14**: 685-696.

18. Yang, T.-A., Heiser, W.C. and Sedivy, J.M. (1995). Efficient *in situ* electroporation of mammalian cells grown on microporous membranes. *Nucleic Acids Res*. **23**: 2803-2810.

19. Janosch, P., Schellerer, M., Seitz, T., Reim, P., Eulitz, M., Brielmeier, M., Kolch, W., Sedivy, J.M. and Mischak, H. (1996). Characterization of IkB kinases: IkB-α is not phosphorylated by Raf-1 or protein kinase C isozymes, but is a casein kinase II substrate. *J. Biol. Chem*. **271**: 13868-13874.

20. Weissinger, E.M., Eissner, G., Grammer, C., Fackler, S., Haefner, B., Yoon, L.S., Lu, K.L., Bazarov, A., Sedivy, J.M., Mischak, H. and Kolch, W. (1997). Inhibition of the Raf-1 kinase by cAMP agonists causes apoptosis of v-abl transformed cells. *Mol. Cell. Biol*. **17**: 3229-3241.

21. Brown, J.P., Wei, W. and Sedivy, J.M. (1997). Bypass of senescence after disruption of $p21^{CIP1/WAF1}$ gene in normal diploid human fibroblasts. *Science* **277**: 831-834.

22. Mateyak, M.K., Obaya, A.J., Adachi, S. and Sedivy, J.M. (1997). Phenotypes of c-Myc-deficient fibroblasts isolated by targeted homologous recombination. *Cell. Growth Diff*. **8**: 1039-1048.

23. Shichiri, M., Adachi, S., Sedivy, J.M. and Marumo, F. (1997). Biphasic regulation of the preproendothelin-1 gene by c-*myc*. *Endocrinology* **138**: 4584-4590.

24. Shichiri, M., Sedivy, J.M., Marumo, F. and Hirata, Y. (1997). Endothelin-1 is a potent survival factor for c-Myc-dependent apoptosis. *Mol. Endocrinol*., **12**: 172-180.

25. Prouty, S.M., Maroo, A., Maucher, C., Mischak, H., Kolch, W. and Sedivy, J.M. (1998). Studies of perinuclear and nuclear translocation of the Raf-1 protein in rodent fibroblasts. *Biochim. Biophys. Acta*, **1404**: 6-16.

26. Lu, K.K., Bazarov, A.V., Yoon, L.S. and Sedivy, J.M. (1998). Isolation of temperature-sensitive mutations in the c-*raf-1* catalytic domain and expression of conditionally active and dominant-defective forms of Raf-1 in cultured mammalian cells. *Cell Growth Diff*., **9**: 367-380.

27. Bunz, F., Dutriaux, A., Lengauer, C., Waldman, T., Zhou, S., Brown, J.P., Sedivy, J.M., Kinzler, K.W. and Vogelstein, B. (1998). The induction of p21 by p53 is required for sustained G2 arrest following DNA damage. *Science* **282:** 1497-1501.

28. Counter, C.M., Hahn, W.C., Wei, W., Dickinson-Caddle, S., Beijersbergen, R.L., Lansdorp, P.M., Sedivy, J.M. and Weinberg, R.A. (1998). Dissociation between in vitro telomerase activity, telomere maintenance and cellular immortalization. *Proc. Natl. Acad. Sci. USA* **95:** 14723-14728.

29. Bush, A., Mateyak, M.K., Dugan, K., Obaya, A., Adachi, S., Sedivy, J.M. and Cole, M.D. (1998). *c-myc* null cells misregulate *cad* and *gadd45* but not other proposed c-Myc targets. *Genes Dev*. **12:** 3797-3802.

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32. Wei, S., Wei, W. and Sedivy, J.M. (1999). Expression of catalytically active telomerase does not prevent premature senescence caused by overexpression of oncogenic Ha-Ras in normal human fibroblasts. *Cancer Res*. **59**: 1539-1543.

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34. Yeung, K.C., Seitz, T., Li, S., Janosch, P., McFerran, B., Kaiser, C., Fee, F., Katsanakis, K.D., Rose, D.W., Mischak, H., Sedivy, J.M. and Kolch, W. (1999). Suppression of Raf-1 kinase activity and MAP kinase signalling by RKIP. *Nature* **401**: 173-177.

35. Wei, W. and Sedivy, J.M. (1999). Differentiation between senescence (M1) and crisis (M2) in human fibroblast cultures. *Exp. Cell Res*. **253**: 519-522.

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but dramatically reduces susceptibility to Ras and Raf transformation. *Cancer Res*. **61**: 1178-1186.

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44. Adachi, S., Obaya, A.J., Han, Z., Ramos-Desimone, N., Wyche, J.H. and Sedivy, J.M. (2001). c-Myc is necessary for DNA damage-induced apoptosis in the G2 phase of the cell cycle. *Mol. Cell. Biol*. **21**: 4929-4937.

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46. Yeung, K.C., Rose, D.W., Dhillon, A.S., Yaros, D., Gustafsson, M., Chatterjee, D., McFerran, B., Wyche, J., Kolch, W. and Sedivy, J.M. (2001). Raf kinase inhibitor protein interacts with NF-κB-inducing kinase and TAK1 and inhibits NF-κB activation. *Mol Cell. Biol*. **21**: 7207-7217.

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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
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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 Berlekey 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 Southwesters 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 Austrian Academy of Sciences, Innsbruck, Austria University of Salzburg, Salzburg, Austria University of Natural Resources and Life Sciences, Vienna, Austria
2011	Mayo Clinic, Rochester, Minnesota University of Pennsylvania, Philadelphia Fox Chase Cancer Center, Philadelphia
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	University of Konstanz, Konstanz, Germany

University of Newcastle, Nawcastle, IK

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 Lillenium, 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, Bethsda, 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 Extracelluar 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, Senescence, Aging and Cencer, 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
	Robert and Arlene Kogod 3rd Annual Conference on Aging, Mayo Clinic, Rochester, MN
2013	International Association of Gerontology and Geriatrics (IAGG), Seoul, Korea
	Wellcome Cell Senescence in Cancer and Ageing Conference, Cambridge, UK