University of California, San Francisco

CURRICULUM VITAE

Name: Jayanta Debnath, MD

Position: Professor, Step 1
Pathology
School of Medicine

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EDUCATION

1988 - 1992	Georgia Institute of Technology	B.S.	Highest Honors, Chemistry
1992 - 1998	Harvard Medical School	M.D.	Magna cum laude
1995 - 1997	National Cancer Institute, NIH	HHMI Research Scholar	Harold Varmus Lab
1998 - 1999	Brigham and Women's Hospital	Intern	Pathology
1999 - 2000	Brigham and Women's Hospital	Resident	Pathology
2000 - 2003	Brigham and Women's Hospital	Fellow	Pathology
2000 - 2005	Harvard Medical School	Postdoctoral Fellow	Cell Biology (Joan Brugge Lab)

LICENSES, CERTIFICATION

2003	Massachusetts Medical License Board of Registration in Medicine (expired 2006)
2003	American Board of Pathology, Board Certification in Anatomic Pathology
2005	California Medical Board, Physician and Surgeon

PRINCIPAL POSITIONS HELD

2003 - 2005	Harvard Medical School	Instructor	Cell Biology
2005 - 2011	University of California, San Francisco	Assistant Professor	Pathology
2011 - 2016	University of California, San Francisco	Associate Professor	Pathology
2016 - present	University of California, San Francisco	Professor	Pathology

OTHER POSITIONS HELD CONCURRENTLY

2005 - present	UCSF Medical Center	Staff Pathologist

HONORS AND AWARDS

1988	President's Scholar (Full academic scholarship)	Georgia Institute of Technology
1989	Outstanding freshman, sophomore, junior, and senior awards, School of Chemistry	Georgia Institute of Technology
1991	Undergraduate Research Fellowship in Chemistry	National Science Foundation
1992	Phi Kappa Phi Scholarship Cup (Valedictorian)	Georgia Institute of Technology
1995	NIH-HHMI Research Scholar	Howard Hughes Medical Institute
1997	Research Award for Continued Medical Studies	Howard Hughes Medical Institute
1998	Honors in a Special Field, magna cum laude	Harvard Medical School
1998	Soma Weiss Medical Student Research Day Speaker Award	Harvard Medical School
2000	HHMI Postdoctoral Fellowship for Physicians	Howard Hughes Medical Institute
2003	Mentored Clinical Scientist Development Award (KO8)	National Cancer Institute
2003	Pfizer Scholar-In-Training Award	American Association of Cancer Research
2006	Culpeper Scholar Award in the Medical Sciences	Partnership for Cures
2006	AACR Genentech BioOncology Career Award	AACR

2006	HHMI Physician-Scientist Early Career Award	Howard Hughes Medical Institute
2007	Stewart Family Trust Award	UCSF Cancer Center
2009	Aspen Cancer Conference Fellow	Aspen Cancer Conference
2011	Era of Hope Scholar Award	DOD Breast Cancer Research Program
2013	Elected to Membership in ASCI	American Society for Clinical Investigation
2013	Waxman Award	Samuel Waxman Cancer Research Foundation
2015	2014-15 Essential Core Teaching Award Nomination	UCSF
2016	Keith R. Porter Fellow (Mid-Career Award For Excellence In Cell Biology)	American Society of Cell Biology

KEYWORDS/AREAS OF INTEREST

autophagy, apoptosis, secretion, exosomes, breast cancer, three-dimensional culture, extracellular matrix, integrins, ubiquitin-like molecules

CLINICAL ACTIVITIES SUMMARY

I serve as an attending in the autopsy service at Moffitt Hospital at UCSF (6 weeks per year).

CLINICAL SERVICES

2005 - present	Attending, Autopsy Service, UCSF Medical Center, San Francisco, CA	6 weeks per year

MEMBERSHIPS

2000 - present	American Society for Cell Biology
2004 - 2005	American Society of Investigative Pathology
2012 - present	American Society of Investigative Pathology
2006 - present	American Association of Cancer Research
2013 - present	American Society of Clinical Investigation (Elected)

SERVICE TO PROFESSIONAL ORGANIZATIONS

2004 -	American Society for Cell Biology	Participant, Capitol Hill Day (Advocacy for NIH budget)
2006 -	WICB Career Luncheon, American Society for Cell Biology	Discussion Leader

2009 -	Georgia Institute of Technology College of Science Advisory Board	Advisor
2009 -	2010 AACR Annual Meeting Program Committee (Cell Growth Signaling Pathways Subsection), American Association of Cancer Research	Subcommittee Member
2011 -	6th Era of Hope Conference, Orlando, FL, DOD Breast Cancer Research Program	Technical Program Committee (Abstract Placement For Meeting)
2011 -	2012 AACR Annual Meeting Program Committee (Cell Death Subsection) American Association of Cancer Research	Subcommittee Member
2013 -	2014 AACR Annual Meeting Program Committee (Cell Death Subsection) American Association of Cancer Research	Subcommittee Member
2014 - present	Artemis Project on the Prevention of Breast Cancer Metastasis, National Breast Cancer Coalition	Scientist Participant
2015 -	2015 American Society of Clinical Oncology Annual Meeting Educational Book	Panel of Expert Scientific Reviewers
-	Meetings and Sessions Organized:	
2010 -	UCSF Diller Cancer Center Bay Area Workshop, "Cancer Cell Growth and Metabolism", UCSF Diller Family Comprehensive Cancer Center	Co-organizer (Conference Chair) with Davide Ruggero, UCSF
2010 -	National Cancer Institute (NIH) Workshop on Autophagy and Cancer	Co-chair with Eileen White, CINJ
2011 -	2011 ASCB Annual Meeting Special Session on Extracellular Matrix Regulation of Programmed Cell Death, Denver, CO	Co-organizer with Mike Overholtzer, MSKCC
2014 -	Experimental Biology 2014, ASIP Symposium on Cancer Pathobiology, San Diego, CA	Symposium Organizer and Chair
2015 -	2015 Keystone Symposium on Autophagy	Co-organizer (conference chair) with Eric Baehrecke, U. Mass.
2018 -	National Cancer Institute (NIH) Workshop on Lysosomes and Cancer	Co-chair with AnaMaria Cuervo, Albert Einstein COM

2018 -	2018 Banbury Meeting on Autophagy and Cancer	Co-organizer with Alec Kimmelman, NYU, and Ravi Amaravadi, UPenn.

SERVICE TO PROFESSIONAL PUBLICATIONS

2011 - present Ad hoc referee for approximately 50+ manuscripts per year. Since 2011, journals include:

- Apoptosis, 2 papers
- Autophagy, 42 papers
- Biology Open, 1 paper
- Cancer Cell, 4 papers
- Cancer Discovery, 9 papers
- Cancer Research, 20 papers
- Clinical Cancer Research, 2 papers
- Cell, 6 papers
- Cell Reports, 2 papers
- Cell Death and Differentiation, 5 papers
- Cell Metabolism, 3 papers
- Current Biology, 2 papers
- Developmental Cell, 6 papers
- Disease Models and Mechanisms, 2 papers
- eLife, 1 paper
- EMBO Journal, 7 papers
- EMBO Reports, 2 papers
- Experimental Cell Research, 1 paper
- Genes and Development, 9 papers
- Journal of Cell Science, 5 papers
- Journal of Cell Biology, 8 papers
- Journal of Clinical Investigation, 6 papers
- Mitochondrion, 1 paper
- Molecular Biology of the Cell, 7 papers
- Molecular Cancer Therapeutics, 2 papers
- Molecular and Cellular Biology, 12 papers

- Molecular Cell, 29 papers
- Molecular Oncology, 1 paper
- Molecular Therapy, 1 paper
- Nature, 15 papers
- Nature Cell Biology, 12 papers
- Nature Chemical Biology, 1 paper
- Nature Communications, 8 papers
- Nature Reviews Cancer, 1 papers
- Nature Structural and Molecular Biology, 5 papers
- Oncogene, 29 papers
- PNAS, 6 papers
- PLOS One, 2 papers
- Radiation Research, 2 papers
- Science, 2 papers
- Science Signaling, 2 papers
- Science Translational Medicine, 3 papers
- Traffic, 2 papers
- Trends in Cell Biology, 1 paper

2010 - 2011 Editorial Board, Autophagy

2011 - present Associate Editor, Autophagy (128 papers)

2014 - Associate Editor, Molecular and Cellular Oncology

2015 - Advisory Editor, Oncotarget

2018 - Guest Editor, Annual Review of Pathology, Mechanisms of Disease (eds, Abul Abbas, Mel Feaney, and Jon Aster)

INVITED PRESENTATIONS - INTERNATIONAL

1997 Invited Lecture, International Meeting on Cytoplasmic Tyrosine Kinases, Stockholm, Sweden

2001 Invited Speaker, American Society for Cell Biology National Meeting, Minisymposium of Programmed Cell Death, Washington, D.C.

2005 Session Chair, Autophagy and Cell Death, Gordon Research Conference on Autophagy, Il Ciocco, Italy

2006	Invited Speaker, American Society for Cell Biology National Meeting, Minisymposium on Programmed Cell Death, San Diego, CA
2007	Invited Lecture and Session Chair, ASCB/ECI Engineering Cell Biology Meeting, Cambridge, MA
2008	Invited Lecture, Autophagy in Cell Death and Aging Session, Gordon Research Conference on Autophagy, Ventura, CA
2009	Invited Speaker, American Society of Cell Biology National Meeting, Minisymposium on Autophagy and Lysosomes, San Diego, CA
2009	Session Co-chair, Minisymposium on Autophagy and Cancer, American Association of Cancer Research Annual Meeting, Denver, CO
2010	Invited Lecture, Stanley Korsmeyer Symposium on Autophagy and Apoptosis, American Association of Cancer Research Annual Meeting, Washington, D.C.
2010	Invited Lecture and Session Chairperson, Workshop on 3D Cultures, American Association of Cancer Research Annual Meeting, Washington, D.C.
2010	Invited Speaker, Selective Autophagy Session, Gordon Research Conference on Autophagy, Il Ciocco, Italy.
2011	Co-chair and speaker, American Society of Cell Biology National Meeting Special Session on "ECM Regulation of Programmed Cell Death," Denver, CO
2011	Invited Speaker, American Society for Cell Biology National Meeting, Minisymposium on Ubiquitin Related Proteins, Denver, CO
2011	Invited Speaker and Session Chair, Zing Conference on Autophagy, Mayan Riviera, Mexico.
2012	Invited Panelist, Session on □Autophagy and Disease□ Gordon Research Conference on Autophagy, Ventura, CA.
2012	Invited Speaker, Experimental Biology 2012, ASIP Session on Autophagy, San Diego, CA
2012	Invited Speaker, 6th International Symposium on Autophagy, Okinawa, Japan
2012	Invited Speaker, American Society for Cell Biology National Meeting, Minisymposium on Cancer Cell Biology, San Francisco, CA
2014	Invited Speaker, Gordon Research Conference on Autophagy, Il Ciocco, Italy

2014	Invited Speaker, Educational Session on Autophagy and Cancer, American Association of Cancer Research Annual Meeting, San Diego, CA
2014	Invited Speaker and Symposium Chair, Experimental Biology 2014, ASIP Symposium on Cancer Pathobiology, San Diego, CA
2014	Invited Speaker, Educational Session on Signaling Pathways and Therapeutics, American Society of Clinical Oncology Annual Meeting, Chicago, IL
2015	Invited Speaker, Forum on Autophagy and Cancer, American Association of Cancer Research Annual Meeting, Philadelphia, PA
2015	Invited Speaker, Gordon Conference on Mammary Gland Biology, Mount Snow, VT
2015	Invited Speaker, European Molecular Biology Organization (EMBO) International Conference on Autophagy Signaling in Health and Disease, Sardinia, Italy
2016	Invited Speaker, Gordon Research Conference on Autophagy, Ventura, CA
2016	Invited Speaker, International Association of Breast Cancer Research 2016 Meeting, Portland, OR
2016	Invited speaker, American Society of Cell Biology National Meeting Special Session on "Autophagy and Secretion," San Francisco, CA
2017	Invited Speaker, International Symposium on Cancer Discovery, Peking University Health Science Center and Nature Publishing Group, Beijing, China
2017	Invited Speaker, 8th International Symposium on Autophagy, Nara, Japan
2017	Invited Speaker, Challenges in Ubiquitin and Autophagy Research Meeting, German Strategic Outreach Program, Half Moon Bay, California
2017	Invited Speaker, ASCB/EMBO Joint Annual Meeting, Minisymposium on "Autophagy," Philadelphia, PA
2018	Invited Speaker, Experimental Biology 2018, ASIP Symposium on EMT and Cancer, San Diego, CA
2018	Invited Speaker, Joint Keystone Symposium on Selective Autophagy and Mitochondrial Biology, Kyoto, Japan

INVITED PRESENTATIONS - NATIONAL

2001	Invited Lecture, National Cancer Institute Workshop on Estrogen Negative Breast Cancer, Bethesda, MD
2003	Invited Speaker, Keystone Symposium, Molecular Targets in Cancer Therapy, Banff, Alberta, Canada
2004	Platform Presentation, Twentieth Oncogene Meeting, Frederick, MD
2006	Invited Lecture, Timberline Symposium, Timberline, OR
2008	Faculty Speaker, HHMI Medical Fellows Meeting, Chevy Chase, MD
2009	Speaker, Stand Up To Cancer (SU2C) Breast Cancer Dream Team Meeting, AACR, Philadelphia, PA
2010	Invited Speaker, Keystone Symposium on Cell Death. Vancouver, BC, Canada
2010	Co-chair and Invited Speaker, National Cancer Institute Workshop on Autophagy and Cancer, Bethesda, MD
2010	Keynote Speaker, 8th Annual Clinical Investigator Trainee (CIST) Meeting, HHMI, Chevy Chase, MD
2011	Invited Speaker, NCI/CCSB Workshop on Systems Biology of Tumor Dormancy, Boston, MA
2013	Invited Plenary Speaker, Applied Pharmaceutical Toxicology Meeting, Genentech Inc., South San Francisco, CA
2014	Invited Speaker, National Breast Cancer Coalition Artemis Meeting on Tumor Dormancy, Calistoga, CA
2014	Invited Speaker, National Breast Cancer Coalition Leadership Summit, Alexandria, VA
2014	Speaker, Samuel Waxman Cancer Research Foundation Annual Meeting, New York, NY
2014	Invited Speaker, Keystone Symposium on Autophagy and Disease, Austin, TX
2015	Speaker, Samuel Waxman Cancer Research Foundation Annual Meeting, New York, NY
2015	Invited Speaker and Co-organizer, Keystone Symposium on Autophagy, Breckenridge, CO
2015	Invited Plenary Speaker, PISA 2015, Recent Advances in Cell Injury, Inflammation, and Neoplasia, American Society for Investigative Pathology, Baltimore, MD

2015 Invited Speaker, Basic Science Symposium on Autophagy, American Association for the Studies of Liver Diseases Annual Meeting, San Francisco, CA

2016 Invited Speaker, Banbury Meeting on Autophagy and Cancer, Cold Spring Harbor Laboratory, NY

2016 Invited Panelist, Session on Eliminating Mortality from Breast Cancer, DOD Breast Cancer Research Program LINKS Meeting, Baltimore, MD.

2016 Speaker, Samuel Waxman Cancer Research Foundation Annual Meeting, New York, NY

2017 Invited Speaker, Keystone Symposium on Autophagy Network Integration in Health and Disease, Copper Mountain, CO

2017 Speaker, Samuel Waxman Cancer Research Foundation Annual Meeting, New York, NY

2017 Invited Plenary Speaker, American College of Veterinary Pathologists Annual Meeting, Vancouver, BC, Canada

2018 Invited Speaker and Co-chair, National Cancer Institute Workshop on Lysosomes and Cancer, Bethesda, MD

2018 Invited Speaker and Co-organizer, Banbury Meeting on Autophagy and Cancer, Cold Spring Harbor Laboratory, NY

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2003 Invited Lecture, University of Vermont Cancer Center Symposium, Burlington, VT

2003 Invited Lecture, Society for Developmental Biology, Woods Hole, MA

2004 Invited Lecture, Department of Molecular Biomedical Research, University of Ghent, Belgium

2004 Invited Lecture, Department of Biochemistry and Molecular Biology, UMDNJ-New Jersey Medical School, Newark, NJ

2004 Invited Lecture, Cancer Biology and Genetics Program, Sloan-Kettering Institute, New York, NY

2005 Seminar, UCSF Rock Hall Research In Progress Series

2005 Speaker, UCSF BMS Graduate Program Retreat, Granlibaken, CA

2006 Seminar, UCSF Breast Oncology Program, San Francisco, CA

2006	Seminar, UCSF Molecular Medicine Program Seminar Series, San Francisco, CA
2006	Invited Speaker, UCSF Cancer Center Seminar Series, San Francisco, CA
2007	Invited Lecture, Wayne State University Department of Pharmacology (Mar 2007), Detroit, MI
2007	Invited Lecture, Northwestern University, Department of Endocrinology and Molecular Medicine (Jan 2007), Chicago, IL
2007	Invited Lecture, Stanford University, Geriatric Research, Education, and Clinical Center, Palo Alto, CA
2008	Invited Lecture, Glaxo Smith Kline Pharmaceuticals, Collegeville, PA
2008	Invited Keynote Speaker, Symposium on Cell Death, University of Colorado Heath Sciences Center, Denver, CO
2008	Invited Keynote Speaker, University of California Davis Medical Center Breast Cancer Symposium, Sacramento, CA
2008	Invited Lecture, UNMC Eppley Comprehensive Cancer Center, Omaha, NE
2009	Invited Lecture, Han-Mo Koo Memorial Seminar, Van Andel Institute, Grand Rapids,MI
2009	Invited Lecture, San Francisco Veteran's Administration Medical Center, San Francisco, CA
2009	Invited Lecture, Buck Institute for Age Research, Novato, CA
2009	Invited Lecture, Diller Family Cancer Center Building Inaugural Scientific Symposium, San Francisco, CA
2009	Invited Lecture, Georgia Institute of Technology School of Biology, Atlanta, GA
2009	Invited Lecture, Winship Cancer Institute, Emory University School of Medicine, Atlanta, GA
2010	Invited Lecture, Lerner Research Institute and Taussig Cancer Center, Cleveland Clinic, Cleveland, OH
2010	Invited Lecture, Ontario Cancer Institute, University of Toronto, Toronto, ON, Canada
2010	Invited Lecture, Clontech Laboratories, Mountain View, CA
2010	Invited Lecture, University of Massachusetts Medical Center Department of Cancer Biology, Worchester, MA

2010	Invited Lecture, University of Colorado Denver Cancer Center, Denver, CO
2010	Invited Lecture, San Francisco State University Department of Biology Seminar Series, San Francisco, CA
2010	Invited Lecture, UCSF Heme/Onc Research Seminar Series, San Francisco, CA
2010	Invited Seminar, Division of Cancer Treatment and Diagnosis, National Cancer Institute, Bethesda, MD
2010	Speaker and Co-organizer, Helen Diller Family Comprehensive Cancer Center Workshop on Metabolism and Cancer, UCSF, San Francisco, CA
2011	Invited Speaker, Novartis Institute of Biomedical Research, Cambridge, MA
2011	Speaker, UCSF Biomedical Sciences Graduate Program Retreat, Granlibakken, CA
2012	Invited Speaker, University of Southern California Keck School of Medicine, Cellular Homeostasis Lecture Series, Los Angeles, CA
2012	Invited Seminar, Department of Oncological Sciences, Mount Sinai School of Medicine, New York, NY
2012	Invited Speaker, UCSF Cancer Center Seminar Series, San Francisco, CA
2012	Invited Speaker, University of Minnesota Department of Biochemistry, Molecular Biology, and Biophysics Seminar Series, Minneapolis, MN
2012	Invited Speaker, Molecular Pharmacology & Chemistry Research Seminar Series Memorial Sloan-Kettering Cancer Center, New York, NY
2012	Invited Seminar, Department of Biological Sciences and Center for the Study for Gene Structure and Function, Hunter College, City University of New York, New York, NY
2012	Invited Seminar, Cleave Biosciences, Burlingame, CA
2012	Invited Speaker, 1st Annual Helen Diller Family Cancer Center Annual Retreat, Santa Cruz, CA
2012	Invited Seminar, Department of Physiology, University of Texas Health Science Center, San Antonio, TX
2013	Invited Keynote Speaker, 2013 Vancouver Autophagy Symposium and BC Cancer Research Series, Vancouver, BC, Canada

2013	Invited Seminar, Department of Cell and Developmental Biology, Oregon Health & Sciences University, Portland, OR.
2013	Invited Speaker, UCSF Breast Oncology Program, San Francisco, CA
2013	Invited Seminar, Amgen Department of Oncology, San Francisco, CA
2014	Invited Seminar, Institut Pasteur, Paris, France
2014	Invited Seminar, Program in Cancer Biology, University of Hawaii Cancer Center, Honolulu, HI
2014	Invited Seminar, University of Chicago, Ben May Cancer Biology Program, Chicago, IL
2014	Invited Seminar, Distinguished Speaker Series, Department of Translational Molecular Pathology, University of Texas M.D. Anderson Cancer Center, Houston, TX
2015	Invited Speaker, University of Cincinnati, Department of Cancer Biology, Cincinnati, OH
2015	Invited Speaker, University of Pittsburgh Cancer Institute, Pittsburgh, PA
2015	Invited Speaker, Sanford-Burnham Institute, La Jolla, CA
2016	Invited Speaker, Frontiers in Oncology Grand Rounds, University of Maryland, Baltimore, MD
2016	Invited Keynote Speaker, Mayo Clinic Autophagy Workshop, Rochester, MN
2016	Invited Speaker, University of Oklahoma Stephenson Cancer Center Excellence in Cancer Research Seminar Series, Oklahoma CIty, OK
2016	Invited Keynote Speaker, 2016 Joint Atlantic-Quebec Cancer Research Workshop, Terry Fox Research Institute and Beatrice Hunter Cancer Research Institute, Montreal, Quebec, Canada
2016	Invited Speaker, University of Florida Cancer Center, Gainesville, FL
2016	Invited Speaker, Cancer Biology Seminar Series, McArdle Laboratory for Cancer Research, University of Wisconsin-Madison, WI
2017	Invited Speaker, Frontiers in Biological Science (FiBS) Distingushed Seminar Series, School of LIfe Sciences, Tsinghua University, Beijing, China

2017	Invited Speaker, Cancer Biology Frontier Seminar Series, Department of Radiation Oncology, Ohio State University Comprehensive Cancer Center, Columbus, OH
2017	Invited Speaker, Grand Rounds, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ
2017	Invited Speaker, Lineberger Comprehensive Cancer Center, University of North Carolina, Chapel Hill, NC
2017	Invited Speaker, Minisymposium on Autophagy, Academia Sinica, Taiwan
2017	Speaker, UCSF Biomedical Sciences Graduate Program Retreat, Granlibakken, CA
2018	Invited Speaker, Department of Pharmacology Seminar Series, University of Colorado Denver, Aurora, CO
2018	Invited Speaker, Beckman Research Instifute, City of Hope Cancer Center, Duarte, CA

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2003	Osler Pathology Review Course, Tampa, FL
2004	San Antonio Breast Cancer Symposium, San Antonio, TX
2011	AACR Annual Meeting, Orlando, FL
2013	ASCI/AAP Annual Meeting, Chicago, IL
2015	ASCI/AAP Annual Meeting, Chicago, IL

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

2008 -	Hong Kong Research Grant Council	External grant reviewer
2008 -	National Medical Research Council, Singapore	External grant reviewer
2008 -	Austrian Science Fund	External grant reviewer
2008 -	FY08 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2008 -	United Kingdom Breast Cancer Campaign	External grant reviewer
2009 -	National Medical Research Council, Singapore	External grant reviewer

2009 -	Hong Kong Research Grant Council	External grant reviewer
2009 -	Health Research Board of Ireland	External grant reviewer
2009 -	FY09 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2009 -	NIH Challenge Grants (RC1)	Ad hoc Reviewer (Stage 1)
2010 -	FY10 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2010 -	French National Research Agency	External grant reviewer
2010 -	New Jersey Cancer Commission	Program project reviewer
2010 -	Health Research Board of Ireland	External grant reviewer
2010 -	Medical Research Council, United Kingdom	External grant reviewer
2010 -	NIH Director's Challenge (RC4)	Ad hoc Reviewer (Stage 1)
2011 -	Cancer Research UK (CRUK)	External grant reviewer
2011 -	FY11 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2011 -	Italian Association of Cancer Research (AIRC)	External grant reviewer
2011 -	Wellcome Trust, United Kingdom	External grant reviewer
2011 -	Danish Cancer Society	External grant reviewer
2011 -	NIH MBPP (Membrane Biology and Protein Processing) Study Section	Ad hoc Reviewer

2011 -	Hong Kong Research Grant Council	External grant reviewer
2012 -	Cancer Research UK (CRUK)	External grant reviewer
2012 -	National Medical Research Council, Singapore	External grant reviewer
2012 -	Italian Association of Cancer Research (AIRC)	External grant reviewer
2012 -	Hong Kong Research Grant Council	External grant reviewer
2012 -	Howard Hughes Medical Institute (HHMI) Medical Student Fellows Program	Fellowship program reviewer
2012 -	FY12 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2012 -	Luxemborg National Research Fund (FNR)	External grant reviewer
2012 -	NIH TCB (Tumor Cell Biology) Study Section	Ad hoc reviewer
2012 -	Biotechnology and Biomedical Sciences Research Council (BBSRC), United Kingdom	External grant reviewer
2013 -	Swiss National Science Foundation, Switzerland	External grant reviewer
2013 -	Italian Association of Cancer Research (AIRC)	External grant reviewer
2013 -	National Medical Research Council, Singapore	External grant reviewer
2013 -	Hong Kong Research Grant Council	External grant reviewer
2013 -	NIH SBIR Grants Study Section	Ad hoc reviewer
2013 -	NIH TCB (Tumor Cell Biology) Study Section	Ad hoc reviewer
2013 -	NIH Cancer Biology Special Emphasis Panel	Ad hoc reviewer
2013 -	FY13 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2013 - 2018	NIH TCB (Tumor Cell Biology) Study Section	Permanent member

2014 -	FY14 Department of Defense Breast Cancer Research Program	Ad hoc programmatic reviewer, Integration Panel
2014 -	Health Research Board of Ireland	External grant reviewer
2014 -	Italian Association of Cancer Research (AIRC)	External grant reviewer
2014 -	Deutsche Krebshilfe (German Cancer Aid)	External grant reviewer
2015 -	Austria Science Fund-Wittgenstein Award	External grant reviewer
2015 -	Hong Kong Research Grant Council	External grant reviewer
2015 -	The Terry Fox Cancer Research Foundation, Canada, Review of Program Project at McGIll University, Montreal, Canada	Program project reviewer (site visit)
2015 -	French National Cancer Institute	Program project reviewer
2015 -	French National Research Agency	External grant reviewer
2015 -	FY15 Department of Defense Breast Cancer Research Program	Member, Integration Panel
2016 -	2016 HHMI International Student Research Fellowships Competition	Reviewer
2016 -	FY16 Department of Defense Breast Cancer Research Program	Member, Programmatic Review Panel
2016 -	Austria Science Fund, Review of Doctoral Program on "Signaling Mechanisms of Cellular Homeostasis" at Max F. Perutz Laboratories, Vienna, Austria	PhD Program Reviewer (Site visit)
2016 - 2018	NIH TCB (Tumor Cell Biology) Study Section	Chair
2016 -	Wellcome Trust/DBT India Alliance	External grant reviewer
2017 -	FY17 Department of Defense Breast Cancer Research Program	Member and Chair-Elect, Programmatic Review Panel

2018 -	FY18 Department of Defense Breast Cancer Research Program	Chair, Programmatic Review Panel

SERVICE ACTIVITIES SUMMARY

My university service has been primarily devoted to the Biomedical Sciences (BMS) Graduate Program and toward the recruitment and retention of underrepresented minority students into graduate programs at UCSF.

BMS Graduate Program Service: I have long-term service on numerous committees in the BMS Graduate Program, including the Seminar Planning committee (since 2007), Internal Selection Committee for Awards and Fellowships (since 2009), Preliminary Qualifying Exam Guidelines Committee (since 2012) and the admissions committee (since 2007, see below).

My major service for BMS has been as Member and Chair of the Admissions Committee. I began as a member in 2007 and then served as chair of the URM Sub-committee from 2010-2014. In 2014, I began service as Chair of Admissions and continue to serve in this capacity. In a typical year, BMS receives 500-600 applications, from which 80 applicants are selected for interviews and approximately 55 are offered admission. I am tasked with leading this highly competitive selection process.

In fall 2015, I became a member of the BMS Executive Committee.

RAPtr Committee: Since 2012, I have served on the RAPtr Committee for the School of Medicine, which is responsible for the review and selection of proposals from medical students to receive funding to conduct summer and year-long research projects.

UCSF CAMPUSWIDE

2009 - present	UCSF Graduate Division Community Building Workshop (formerly called Diversity Workshop)	Small group leader
2011 - present	UCSF Faculty Diversity Committee (Prof. Carl Gross' committee)	Member
2014 - present	Faculty Advisory Committee, Initiative for Maximizing Student Development, NIGMS-IMSD grant, UCSF Graduate Division	
2010 - 2014	Placement of Summer Research Training Program (SRTP) Student Into UCSF Labs (formalized as SRTP Admissions and Placement Committee in 2015)	
2015 - present	Summer Research Training Program Admissions and Placement Committee, UCSF Graduate Division	Member

SCHOOL OF MEDICINE

2005 - 2010	Interviewer, Molecular Medicine Fellowship Program	
2008 - 2009	Stewart Trust Grant Review Committee Member	HDFCCC

2009 -	Laboratory Medicine (Breast Oncology Program Director) Search Committee	Member (Recruited Laura Van't Veer)
2012 - present	ACS Individual Research Award Grant Review Committee Member	HDFCCC
2013 - present	Research Allocation Program Training (RAPtr) Committee	Member
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-	Service for Biomedical Sciences (BMS) Graduate Program:	
2005 - present	Interviewer, BMS Graduate Program	
2006 - present	Biomedical Sciences (BMS) Graduate Program Admissions Committee	Member
2007 - present	BMS Seminar Committee	Member
2007 - present	BMS Student Advisory Committee	Member
2008 - present	Under-represented Minority Subcommittee, BMS Admissions Committee	Member
2009 - present	BMS Graduate Program Internal Selection Committee for Fellowships and Awards	Member
2012 - present	Guidelines Committee for Preliminary Qualifying Exam, Biomedical Sciences Program (with Allan Balmain and Tony Defranco)	Member
2014 - 2015	BMS Admissions Committee	Chairperson
2015 - 2017	BMS Admissions Committee	Co-chair with Robert Blelloch, UCSF
2017 - present	BMS Admissions Committee	Chairperson
2015 - present	BMS Executive Committee	Member

DEPARTMENTAL SERVICE

2005 - 2007	Departments of Pathology and Lab Medicine Website Committee	Member
2005 - present	Interviewer, Anatomic Pathology Residency Program	Interviewer
2008 - 2011	Pathology/Diller Cancer Center Faculty Search Committee	Member (Recruited Bradley Stohr and Scott Seeley)
2009 -	Dept of Anatomy (Werb) T32 Cancer Research Training Grant (Postdoctoral Fellows) Selection	Ad-Hoc Reviewer

2011 - present	Pathology Bridge Funding Committee	Member
2012 -	Pathology and Laboratory Medicine Physician Scientist Pathway Research Day	Faculty Speaker
2012 -	Dept of Anatomy (Werb) T32 Cancer Research Training Grant (Postdoctoral Fellows) Selection	Ad-Hoc Reviewer
2013 -	Departments of Anatomy and Pathology Faculty Search Committee	Member (Recruited Eric Snyder)
2013 -	Pathology and Laboratory Medicine Physician Scientist Pathway Research Day	Faculty Speaker
2013 -	Dept of Anatomy (Werb) T32 Cancer Research Training Grant for Post-doctoral Fellows	Associate Director
2013 -	Department of Pathology Faculty Search Committee	Member
2014 -	Pathology and Laboratory Medicine Physician Scientist Pathway Research Day	Faculty Speaker
2015 -	Pathology and Laboratory Medicine Physician Scientist Pathway Research Day	Faculty Speaker
2015 -	Department of Pathology Faculty Search Committee for Experimental and Liver/GI Pathologist	Member (no faculty successfully recruited)
2015 -	Departments of Anatomy and Pathology Faculty Search Committee	Member
2015 - 2016	Department of Pathology Faculty Search Committee for Physician Scientist	Chair (Recruited David Solomon)
2016 -	Pathology and Laboratory Medicine Physician Scientist Pathway Research Day	Faculty Speaker
2016 - present	Selection Committee, Clinical Cancer Genomics Laboratory Pilot Projects	Member
2017 -	Selection Committee, Stuart Lindsay Endowed Professorships in Experimental Pathology	Chair
2017 -	Selection Committee, Robert Smith Endowed Professorship in Experimental Pathology	Member
2017 -	Organizing committee, 2017 December Pathology Research Day (September 2017)	Chair

SERVICE AT OTHER UNIVERSITIES

1998 - 2001	Regional Selection Committee, Georgia Tech President's Scholarship Program	Boston, MA

2003 -	Organizing committee, Harvard Medical School Forum on "Open Access" Publishing	Boston, MA

COMMUNITY AND PUBLIC SERVICE

2007 -	Annual Biomedical Research Conference for Minority Students Poster session judge and BMS minority recruitment, Austin, TX
2007 -	ReachMD "Clinician's Roundtable" Radio Interview
2007 -	Georgia Institute of Technology President's Scholarship Program Keynote Speaker, PSP Annual Luncheon, Atlanta, GA
2009 -	Interviewed for Science Careers (from the journal Science) for article on "Redefining Tenure at Medical Schools" by Chesea Wald.
2009 -	Interviewed for "Living History" Video, Georgia Institute of Technology Alumni Association
2010 -	Panelist, Career Panel Discussion 8th Annual Clinical Investigator Trainee Meeting, NIH, Bethesda, MD.
2013 -	Dinner Speaker, Regional Meeting of HHMI Medical Student Research Fellows, San Francisco, CA.
2016 -	Invited Panelist, Regional Meeting of HHMI Medical Student Research Fellows, San Francisco, CA

CONTRIBUTIONS TO DIVERSITY

Diversity Efforts for the BMS Program and UCSF Graduate Division: I have served on the URM Admissions Subcommittee for the BMS Graduate Program since its inception in 2009. This committee is tasked to identify and recruit the top diversity candidates from the large and highly competitive overall applicant pool. Since 2012, I have served on the Faculty Diversity Committee (chaired by Professor Carol Gross), which serves to insure diversity and community building among the basic science graduate programs at UCSF. This committee organizes the Annual Community Building Workshop for entering graduate students as well as assists in the curriculum for the Summer Research Training Program (SRTP), a program that annually brings URM undergraduates to UCSF to conduct summer research in basic science faculty labs. In 2014, I became a member of the Faculty Advisory Committee for the Initiative for Maximizing Student Development Grant, an NIGMS-funded program in the UCSF Graduate Division to recruit and retain URM graduate students. Finally, since 2010, I have been one of the principal faculty responsible for placing SRTP undergraduate students into BMS faculty member labs each summer; in 2015, this became a formally organized committee in the UCSF Graduate Division called the SRTP Admissions and Placement Committee.

TEACHING SUMMARY

My formal teaching expertise encompasses the areas of cell biology, cancer biology, and pathology.

Graduate school: I primarily teach graduate level courses for the Biomedical Sciences Graduate Program. From 2005-2010, I served as a discussion leader to a group of 8-10 first year students in the BMS 260 Cell Biology. Since 2010, I have given lectures and led discussion groups for the BMS 230 Cancer Biology course, both prior to and while serving as the course director.
I also advise graduate students in the BMS program in my laboratory, both rotation students and students working toward a thesis in my laboratory. I have served as a chair or as a member of multiple Qualifying Exam Committees for 2nd year UCSF graduate students (in the BMS, DSCB, PIBS, CCB, Neuroscience, Bioengineering and Biophysics programs) and currently serve as a chair or member of twelve Thesis Advisory Committees for advanced graduate students in the BMS, DSCB, Neuroscience and Biophysics Programs. In addition, I have served serve as a faculty coach to students for their oral presentations at the BMS Journal Club, and as a mentor for student's written proposals in various BMS courses.

Course DIrector for BMS230, Advanced Topics In Cancer Research: From 2012-2016, I served as the course director for the primary graduate level elective cancer biology course taught at UCSF. Originally, I served as the co-course director of the BMS 230 Cancer Biology course with Professor Martin McMahon at the HDFCCC; together, we reorganized the curriculum, previously a survey course, into a series of focused, in-depth advanced topics in cancer research. These topics change on a yearly basis in order to cover timely issues in cancer biology. Due to the departure of Dr. McMahon from UCSF, I served as the sole course director for two years (Fall 2015 and 2016).

Medical School: In the medical school curriculum at UCSF, I teach as a lab instructor in the Immunology Block (I3) and small group discussion leader for the pathology section in the Cancer Block (M3). As part of my clinical duties, I also supervise and teach anatomic pathology residents and medical students as an attending in the autopsy service at Moffitt Hospital at UCSF (6 weeks per year).

FORMAL TEACHING

Not UCSF	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
X	2000 - 2004	Harvard Medical School Medical Student Pathology	Lab Instructor		8
	2005 -	BMS260, BMS Cell Biology	Discussion Leader		8
	2006 -	BMS260, BMS Cell Biology	Discussion Leader		8
	2007 -	BMS260, BMS Cell Biology	Discussion Leader		8
	2008 -	BMS260, BMS Cell Biology	Discussion Leader		8
	2010 -	BMS260, BMS Cell Biology	Discussion Leader		8

Not UCSF	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2006 -	Infection, Immunity, and Inflammation	Lab Instructor		25
	2007 -	Infection, Immunity, and Inflammation	Lab Instructor		25
	2008 -	Infection, Immunity, and Inflammation	Lab Instructor		25
	2009 -	Infection, Immunity, and Inflammation	Lab Instructor		25
	2010 -	Infection, Immunity, and Inflammation	Lab Instructor		25
	2012 -	Infection, Immunity and Inflammation	Lab Instructor		25
	2013 -	Infection, Immunity and Inflammation	Lab Instructor		25
	2014 -	Infection, Immunity, and Inflammation	Lab Instructor	Medicine	25
	2016 -	Infection, Immunity, and Inflammation	Lab Instructor	Medicine	25
	2006 -	Cancer	Discussion Leader	Medicine	15
	2007 -	Cancer	Discussion Leader	Medicine	15
	2008 -	Cancer	Discussion Leader	Medicine	15
	2009 -	Cancer	Discussion Leader	Medicine	15
	2010 -	Cancer	Discussion Leader	Medicine	15
	2011 -	Cancer	Discussion Leader	Medicine	15
	2013 -	Cancer	Discussion Leader	Medicine	15
	2014 -	Cancer	Discussion Leader	Medicine	15
	2007 -	Life Cycle/Epilogue	Lab Instructor	Medicine	24
	2008 -	Life Cycle/Epilogue	Lab Instructor	Medicine	24
	2007 -	Biochem 297, Molecular Pathology/Biology of Neoplasia	Lab Instructor	Grad	15

Not UCSF	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2008 -	Biochem 297, Molecular Pathology/Biology of Neoplasia	Lab Instructor	Grad	15
	2011 -	Physio 181, Demystifying Medicine	Lecturer (1 lecture)	Grad	25
	2014 -	Physio 181, Demystifying Medicine	Lecturer (1 lecture)	Grad	25
	2009 -	BMS230, Molecular and Cellular Biology of Cancer	Lecturer (1-2 lectures)	Grad	25
	2010 -	BMS230, Molecular and Cellular Biology of Cancer	Lecturer (1-2 lectures)	Grad	25
	2012 -	BMS230, Advanced Topics In Cancer Research	Co-Course Director and Lecturer (1 lecture and 1 discussion section)	Grad	8
	2013 -	BMS 230, Advanced Topics In Cancer Research	Co-Course Director and Lecturer (2 lectures and 1 discussion section)	Grad	25
	2014 -	BMS 230, Advanced Topics In Cancer Research	Co-Course Director and Lecturer (2 lectures and 1 discussion section)	Grad	25
	2015 -	BMS 230, Advanced Topics in Cancer Research	Course Director and Lecturer (2 lectures and 1 discussion section)	Grad	15
	2016 -	BMS 230, Advanced Topics in Cancer Research	Course Director and Lecturer (3 lectures and 2 discussion sections)	Grad	15

INFORMAL TEACHING

2005 - 2006 BMS Journal Club Faculty Coach (Guided paper discussions and oral presentations for 3 graduate students (3 hours per student)), University of California, San Francisco

2005 - present Autopsy service attending pathologist (Supervised 2-4 residents/medical students six weeks per year), UCSF Medical Center

2006 - 2007 Qualifying exam committee member (Served on qualifying exam committee for 4 BMS graduate students (7-10 hrs per student)), University of California, San Francisco

2006 - 2007 BMS Journal Club Faculty Coach (Guided oral presentations for 4 graduate students (2-3 hours per student)), University of California, San Francisco

2006 - 2006 Discussion Leader, "Mentoring Mania" Symposium, UCSF (Led one time (1 hour) discussion with 5 post-docs), UCSF Medical Center

2007 - 2008 Qualifying exam committee member (Served on qualifying exam committee for 1 BMS and 1 CCB graduate student (7-10 hrs per student)), University of California, San Francisco

2007 - 2008 Chair, qualifying exam committee (Chair of qualifying exam committee for Seth Bechis (BMS/MSTP student), 10 hrs total), University of California, San Francisco

2007 - 2008 BMS Journal Club Faculty Coach (Guided oral presentations for one graduate student (2-3 hours per student)), University of California, San Francisco

2007 - 2009 Thesis Advisory Committee, Cathy Collins (Ph.D. candidate, MSTP/BMS) (Meet 1-2 times yearly, 2 hrs per meeting), University of California, San Francisco

2007 - 2010 Thesis Advisory Committee, (Kate Nestor, Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), University of California, San Francisco

2007 - 2011 Thesis Advisory Committee, Daniel Garcia (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), University of California, San Francisco School of Medicine

2007 - 2011 Thesis Advisory Committee, Brandon Tavshajian (Ph.D. candidate, CCB) (1 meeting/year, 2h per mtg), University of California, San Francisco School of Medicine

2008 - 2009 Chair, Qualifying exam committee (Chair of qualifying exam committee for Sarah Gierke (BMS), 10h total), University of California San Francisco

2008 - 2009 Faculty Mentor for NSF and BMS260 proposals, BMS Graduate Program (Advised two first-year BMS sutdents in writing NSF and BMS260 proposals (10 hours per student)), University of California San Francisco

2008 - 2009 BMS Journal Club Faculty Coach (Guided oral presentations for five graduate students (2-3 hours per student)), University of California, San Francisco

2008 - 2009 Faculty Mentor for BMS225A proposal, BMS Graduate Program (Advised one first-year BMS sutdents in writing BMS225A proposal (10 hours total)), University of California San Francisco

2008 - 2009 Chair, Qualifying exam committee (Chair of qualifying exam committee for Jonathan Chou (MSTP/BMS), 10 hrs total), University of California, San Francisco

2009 - 2010 Qualifying exam committee member (Served on qualifying exam committee for 2 BMS graduate students (7-10 hrs per student)), University of California, San Francisco

2009 - 2010 BMS Journal Club Faculty Coach (Guided oral presentations for three graduate students (2-3 hours per student)), University of California, San Francisco

2009 - 2012 Thesis Advisory Committee, Jonathan Chou (Ph.D. candidate, MSTP/BMS) (1 meeting/year, 2h per mtg), University of California, San Francisco School of Medicine

2010 - 2013 Chair, Thesis Advisory Committee, Lionel Lim (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), University of California, San Francisco School of Medicine

2009 - 2010 Chair, Qualifying exam committee (Chair of qualifying exam committee for Megan Salt (BMS), 10 hrs total), University of California, San Francisco

2010 - 2011 Qualifying Exam committee member (Serve on qualifying exam committee for 1 BMS, 1 PIBS, 1 Biophysics, and 1 Neuroscience graduate student, 7-10 hrs per student), University of California, San Francisco.

2010 - 2011 BMS Journal Club Faculty Coach (Guided oral presentations for two graduate students (2-3 hours per student)), University of California, San Francisco

2011 - 2012 Qualifying Exam committee member (Serve on qualifying exam committee for 1 DSCB Student and 2 BMS Students, 7-10 hrs per student), University of California, San Francisco.

2011 - 2012 BMS and CCB Journal Club Faculty Coach (Guided oral presentations for three graduate students (2-3 hours per student)), University of California, San Francisco

2012 - 2016 Thesis Advisory Committee, Si-Han Chen (Ph.D. candidate, Biophysics) (1 meeting/year, 2h per mtg), UCSF

2012 - 2016 Thesis Advisory Committee, Julia Marguiles (Ph.D. candidate, Neuroscience) (1 meeting/year, 2h per mtg), UCSF

2012 - 2015 Chair, Thesis Advisory Committee, Mike Ando (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2012 - 2015 Thesis Advisory Committee, Brittany Anderton (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2012 - 2013 BMS Journal Club Faculty Coach (Guided oral presentations for one graduate students (2-3 hours per student)), University of California, San Francisco

2012 - 2013 Qualifying Exam committee member (Serve on qualifying exam committee for 1 UCB/UCSF Bioengineering Student), University of California, San Francisco.

2012 - 2013 Faculty Mentor for BMS225A proposal, BMS Graduate Program (Advised one first-year BMS student in writing BMS225A proposal (10 hours total)), University of California San Francisco

2012 - 2013 Chair, Qualifying exam committee (Chair of qualifying exam committee for Gianne Souza (BMS), 10h total), University of California San Francisco

2013 - 2015 Chair, Thesis Advisory Committee, Florie Charles Mar (Ph.D. candidate, BMS) (1 meeting /year, 2h per mtg), UCSF

2013 - 2015 Thesis Advisory Committee, Darien Reed (Ph.D. candidate, MSTP/Tetrad) (1 meeting/year, 2h per mtg), UCSF

2013 - 2014 Thesis Advisory Committee, Alec Cerchiari (Ph.D. candidate, Bioengineering Student) (1 meeting/year, 2h per mtg), UCB/UCSF Bioengineering Program.

2013 - 2015 Chair, Thesis Advisory Committee, Renee Rivas (Ph.D. candidate, MSTP/BMS) (1 meeting/year, 2h per mtg), University of California San Francisco

2013 - Invited Speaker, UCSF Medical Scientist Training Program (MSTP) Grand Rounds, University of California, San Francisco

2012 - 2013 Chair, Qualifying exam committee (Chair of qualifying exam committee for Christine Sheridan (BMS), 10h total), University of California San Francisco

2013 - 2014 Chair, Qualifying exam committee (Chair of qualifying exam committee for Amanda Paulson (BMS), 10h total), University of California San Francisco

2013 - 2014 BMS Journal Club Coach (Guided oral presentations for three BMS graduate students, 2-3 hours per student), University of California San Francisco

2013 - 2014 Department of Pathology MOD Conference Mentor (Guided oral presentation by Manana Kvezerelli, Anatomic Pathology Resident, 1-2 hrs), University of California San Francisco

2013 - 2014 Qualifying Exam committee member (Served on qualifying exam committee for 1 BMS, 1 Biophysics and 1 CCB student), University of California, San Francisco.

2013 - 2014 Chair, Qualifying exam committee (Chair of qualifying exam committee for David Pardo (BMS), 10 h total), University of California, San Francisco.

2014 - 2015 BMS Journal Club Coach (Guided oral presentations for one BMS graduate student, 2-3 hours per student), University of California San Francisco

2015 - present Thesis Advisory Committee, Joe Udoechu (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2015 - present Thesis Advisory Committee, T.J. Hu (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2015 - 2016 Thesis Advisory Committee, Svetlana Keylin (Ph. D. candidate, DSCB) (1 meeting/year, 2h per mtg), UCSF

2015 - present Thesis Advisory Committee, Ted Ho (Ph. D. candidate, Biophysics) (1 meeting/year, 2h per mtg), UCSF

2015 - 2016 Thesis Advisory Committee, David Pardo (Ph. D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2014 - 2015 Qualifying Exam Committee Member (Served on qualifying exam committee for 3 BMS students) University of California San Francisco

2014 - 2015 Chair, Qualifying Exam Committee (Chair of qualifying exam committee for Vassily Kutyavin (BMS), 10 h total), University of California, San Francisco.

2015 - present Thesis Advisory Committee, Alex Samocha (Ph. D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2015 - 2016 BMS Journal Club Coach (Guided oral presentations for one BMS graduate student, 2-3 hours per student), University of California San Francisco

2016 - present Chair, Thesis Advisory Committee, Christina Adams (Ph.D. candidate, BMS) (1 meeting/year, 2h per mtg), UCSF

2016 - 2017 BMS Journal Club Faculty Coach (Guided paper discussions and oral presentations for 3 graduate students (2-3 hours per student)), University of California, San Francisco

2016 - 2017 Qualifying Exam Committee Member (Served on qualifying exam committee for 1 BMS student) University of California San Francisco

MENTORING SUMMARY

My laboratory is dedicated to the education of post-doctoral fellows, graduate students, and undergraduate students. My principal mentoring role is as a PhD advisor to graduate students in the BMS program. Currently, four BMS graduate students are pursuing a thesis in my laboratory, among which two are UCSF Discovery Fellows, two are NSF Graduate Fellowship holders, and one has a NRSA from the NIH. In addition, I currently have three post-doctoral fellows in my lab, and I regularly host rotation students, summer undergraduate students, visiting graduate students and fellows for short-term stays in my lab. My record of mentorship is best evidenced by the track record of my trainees in obtaining first-author publications in high impact journals (e.g., Cell, Cancer Discovery, Nature Cell Biology) as well as receiving prestigious pre-doctoral (e.g., NIH F32, NSF) and post-doctoral (e.g., ACS, DOD, CIHR, Banting) fellowships.

Recently, my first graduate student, Lilly Radoshevich became a tenure track Assistant Professor at the University of Iowa College of Medicine.

In the Department of Pathology, I serve as a career advisor to residents and fellows interested in becoming academic experimental pathologists. In 2013, I began service as Associate Director (Basic Science) for the Molecular and Cellular Mechanisms of Cancer T32 Training Grant (T32 CA108462, PI: Zena Werb), a multi-departmental training grant for post-doctoral fellows pursuing cancer research at UCSF and the HDFCCC.

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program or School	Mentor Type	Role	Current Position

Dates	Name	Program or School	Mentor Type	Role	Current Position
2001 - 2005	Carolyn Wrobel	Harvard Medical School	Research/Scholarly Mentor	Advisor for rotation and during graduate thesis work, Brugge Lab	Assistant Professor, Depaul University
2001 - 2001	Diedra Wrighting	Harvard Medical School	Research/Scholarly Mentor	Rotation Advisor, Brugge Lab	Research Scientist, Broad Institute, MIT
2001 - 2001	Sean Beausoliel	Harvard Medical School	Research/Scholarly Mentor	Rotation Advisor, Brugge Lab	Research Scientist, Cell Signaling Technologies
2005 - 2007	Chris Fung	University of California, San Francisco	Research/Scholarly Mentor	Supervised post undergraduate research	Resident, Emergency Medicine, University of Michigan
2006 - 2011	Lilly Radoshevich	University of California, San Francisco	Research/Scholarly Mentor	Thesis Advisor, BMS Graduate Student	Assistant Professor, Department of Immunology and Microbiology, University of Iowa College of Medicine
2006 - 2011	Rebecca Lock	University of California, San Francisco	Research/Scholarly Mentor	Rotation Advisor/Thesis Advisor	CTF Young Investigator and ACS Post-doctoral Fellowships (Karen Cichowski, Harvard Medical School)

Dates	Name	Program or School	Mentor Type	Role	Current Position
2007 - 2013	Eduardo Salas	University of California, San Francisco	Research/Scholarly Mentor	Supervised post undergraduate research	Research Scientist, Gilead Corporation, Foster City, CA
2007 - 2009	Cynthia Jimenez	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	M.D. With Thesis Committee Member	Surgical pathologist (private practice), Sacramento, CA
2008 - 2008	Ada Li	University of California, San Francisco	Research/Scholarly Mentor	Summer Research Mentor (SEP High School Program)	Undergraduate, UCLA
2008 - 2015	Candia Kenific	University of California, San Francisco	Research/Scholarly Mentor	Rotation advisor/Thesis Advisor	Post-doctoral Fellow, (David Lyden, Weill Cornell Medical Center)
2009 - 2014	Lyndsay Murrow	University of California, San Francisco	Research/Scholarly Mentor	Rotation advisor/Thesis Advisor	Damon Runyon Post-doctoral Fellow (Zev Gartner, UCSF)
2009 - 2013	Laura Westrake	Van Andel Research Institute		Thesis committee member (external advisor)	Post-doc, Gia Voltz Lab, University of Colorado Boulder
2009 - 2009	Estefania Fernandez	University of California, San Francisco	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program)	MD/PhD (MSTP) Program, Washington Univ-St. Louis

Dates	Name	Program or School	Mentor Type	Role	Current Position
2010 - 2010	Nuria Eritja	University of California, San Francisco	Research/Scholarly Mentor	Short term stay advisor	Post-doc, Spain
2011 - 2011	Shivali Gupta	University of California, San Francisco	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program)	MPH, University of California, Berkeley
2011 - 2012	Sanaaz Sadegh	University of California, San Francisco	Research/Scholarly Mentor	Advisor, International Undergraduate Internship	Graduate Student, University of Southern California
2012 - 2016	Hanna Kuznetsov Starobinets	University of California, San Francisco	Research/Scholarly Mentor	Rotation advisor/Thesis advisor	Scientist, Genocea Biosciences, Cambridge, MA
2012 - 2013	Kimberley Woo	University of California, Berkeley	Research/Scholarly Mentor	Undergraduate Research Advisor	Undergraduate, UC Berkeley
2012 - 2013	Jordan Wu	University of California, Berkeley	Research/Scholarly Mentor	Undergraduate Research Advisor	Junior Specialist, Debnath Lab, UCSF
2013 - present	Jordan Wu	University of California, San Francisco	Research/Scholarly Mentor	Supervised post-undergraduate research	Junior Specialist, Debnath Lab, UCSF
2013 - present	Juliet Goldsmith	University of California, San Francisco	Research/Scholarly Mentor	Rotation advisor/Thesis advisor	BMS Graduate Student
2013 -	Jeff Chukwuneke	University of California, San Francisco	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program-Amgen Scholars)	Medical Student, Columbia University College of Physicians and Surgeons

Dates	Name	Program or School	Mentor Type	Role	Current Position
2014 -	Caroline Park	Albert Einstein College of Medicine, Bronx, NY		External examiner, PHD thesis	MSTP Student, Cuervo Lab, Albert Einstein
2014 - present	Timothy Marsh	University of California, San Francisco	Research/Scholarly Mentor	Rotation advisor/Thesis advisor	BMS Graduate Student
2014 -	Rocio Saavedra	University of Puerto Rico, PR	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program-NSF)	Graduate Student, Yale University, New Haven, CT
2014 - 2015	Florie Charles Mar	University of California, San Francisco	Research/Scholarly Mentor	Thesis Advisor (Co-mentor with Dr. Brad Stohr)	Portola Biosciences, South San Francisco, CA
2015 - present	Jennifer Liu	University of California, San Francisco	Research/Scholarly Mentor	Rotation Advisor/Thesis Advisor	MD/PhD (MSTP) Student, UCSF
2015 -	Mackinzie Stanley	Whitman College, WA	Research/Scholarly Mentor	Summer Research Internship Mentor	Undergraduate, Whitman College
2016 -	Albert Yu	University of California, Berkeley	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program-Amgen Scholars)	Undergraduate, UC Berkeley
2016 -	Daphne Superville	Massachusetts Institute of Technology	Research/Scholarly Mentor	Summer Research Mentor (SRTP Undergraduate Program-NSF)	Undergraduate, MIT
2016 -	Tina Solvik	Pomona College	Research/Scholarly Mentor	Rotation Advisor	BMS Graduate Student

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2007 - 2011	Nan Chen	University of California, San Francisco	Research/Scholarly Mentor	Postdoctoral Advisor	Staff Research scientist, Memorial Sloan Kettering Cancer Center
2007 - 2010	Kimberley Evason	University of California, San Francisco School of Medicine	Career Mentor	Advisor, UCSF Molecular Medicine Program	Assistant Professor, Department of Pathology, University of Utah
2007 - 2010	W. Patrick Devine	University of California, San Francisco School of Medicine	Career Mentor	Advisor, UCSF Molecular Medicine Program	Clinical Fellow, UCSF Pathology
2007 - present	Ritu Malhotra	University of California, San Francisco	Research/Scholarly Mentor	Postdoctoral Advisor	Research Scientist, Siemens Healthcare, Mountain View, CA
2008 - 2017	Srirupa Roy	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Postdoctoral Advisor	Post-doctoral fellow
2011 - 2016	Jasvinder Kaur	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Postdoctoral Advisor	Senior Regulatory Affairs Associate, Ultragenyx Pharmacuetic als, Novato, CA

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2011 - 2017	Jennifer Rudnick	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Postdoctoral Advisor (DOD BCRP Post Doc)	Scientist, Corvus Pharmaceutical, Burlingame, CA
2013 - present	Andrew Leidel	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Postdoctoral Advisor	Post-doctoral fellow, Banting Fellowship , Canadian Institute of Health Research
2013 - 2016	David Solomon	University of California, San Francisco School of Medicine	Career Mentor	Sponsor, UCSF Physician Scientist Scholar Program Application	Assistant Professor of Pathology, UCSF
2014 - present	Craig Forrester	University of California, San Francisco School of Medicine	Career Mentor	Member, Scholarship Oversight Committee, UCSF Pediatrics	Pediatric Heme/Onc Fellow and Post-doc, Ruggero Lab
2016 - present	Teresa Montkonnen	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Post-doctoral Advisor	Post-doctoral fellow
2016 - present	Ari Vlahakis	University of California, San Francisco School of Medicine	Research/Scholarly Mentor	Post-doctoral Advisor	Post-doctoral fellow, NIH T32 Training Grant

FACULTY MENTORING

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
2011 - 2013	Andrew Hseih	Instructor, UCSF Heme/Onc	Career Mentor	Career development and NIH K08 mentoring committee	Assistant Professor, Fred Hutch Cancer Center
2014 - 2015	Eric Snyder	Assistant Professor	Career Mentor	Department of Pathology Faculty Mentor	Assistant Professor, University of Utah, Dept of Pathology
2014 - present	Anatoly Urisman	Clinical Instructor	Career Mentor	Department of Pathology Faculty Mentor	Assistant Professor, UCSF Pathology
2015 - present	Rushika Perera	Assistant Professor, Dept of Anatomy	Career Mentor	Faculty mentor	Assistant Professor, Dept of Anatomy
2015 - present	Arun Wiita	Assistant Professor, Dept of Lab Medicine	Career Mentor	Career mentor and Advice on first NIH R01 grant	Assistant Professor, Dept of Laboratory Medicine

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

My laboratory is internationally recognized for its studies of autophagy, a tightly regulated cellular self-digestion pathway, and how this process regulates epithelial cell fate, oncogenic transformation and carcinoma progression. In eukaryotic cells, autophagy primarily functions as a critical survival response and metabolic adaptation pathway during nutrient deprivation or stress; as a result, interest in manipulating autophagy to treat human diseases, such as cancer, has rapidly intensified.

Autophagy and cell-matrix adhesion: Cancer cells are resistant to anoikis, a form of apoptosis observed in epithelial cells deprived of extracellular matrix (ECM) contact. Several years ago, we discovered that autophagy serves as a key mechanism of anoikis resistance. In follow-up work, we discovered that autophagy also facilitates glycolytic metabolism during oncogenic transformation. Based on these findings, we are dissecting how autophagy contributes to the metabolic fitness of oncogene-transformed cells, allowing them to survive and expand in response to ECM deprivation and other microenvironmental stresses. More recently, we have uncovered a new role for autophagy in selectively promoting the disassembly and turnover of integrin-associated focal adhesions during cell migration and adhesion, which may have important implications in invasion and metastasis.

Autophagy in cancer progression and metastases: My laboratory is also delineating how autophagy impacts breast cancer progression in vivo using mouse cancer models.

We have created mice containing conditional null mutant alleles that allow us to delete autophagy in a tissue specific manner and crossed them with established mouse models of metastatic breast cancer to define the role of autophagy in cancer progression in vivo. Our studies focus on dissecting the functional requirements for autophagy in both tumor cells as well as key stromal constituents of the larger tumor microenvironment during primary tumor growth and metastasis. We are particularly interested in the role of autophagy in breast cancer cells that lie dormant for extended periods, and ultimately, metastasize at foreign tissue sites.
Novel biochemical and biological functions of ATGs: Despite widespread interest in exploiting autophagy for therapeutic purposes, we have much to learn about how this process works in mammalian cells and tissues. Autophagy is a tightly regulated by highly conserved gene products called ATGs. However, our recent results implicate these ATGs in diverse cellular functions, many of which are distinct from their long-established roles in catabolism. Using cell biological, biochemical and yeast genetic approaches, we are: 1) dissecting new roles for ATGs in the control of unconventional secretion; 2) probing genetic interactions between autophagy and mitochondrial protein quality control pathways; 3) elucidating the cellular functions of ATG12-ATG3 (a novel complex between two autophagy regulators that my laboratory discovered in 2010) in the control of endocytosis and exosome biogenesis; and 4) determining how autophagy impacts protein translation and anabolic capacity during starvation.

RESEARCH AWARDS - CURRENT

1. R01 CA126793-06	Principal Investigator		Debnath (PI)
NIH/NCI		02/2015	01/2020
Autophagy in adhesion and metastasis		$ 200, 000 direct/yr 1	$ 1,585,000 total

2. R01 CA188404	Principal Investigator		MPI: Debnath and Bergers (PI)
NIH/NCI		09/2014	06/2019
Autophagy as a microenvironmental regulator of tumorigenesis and resistance.		$ 269,000 direct/yr 1	$ 2,100,000 total

3. R21 CA201849	Principal Investigator		Debnath (PI)
NIH/NCI		06/2016	05/2018
Deciphering Autophagy-Dependent Secretion Using Proximity-Based Biotinylation		$ 108,000 direct/yr 1	$ 239,000 total

4. QB3/Calico Longevity Fellowship	Principal Investigator		Debnath (PI)
Calico Labs		6/2017	5/2019

Defining the Effects of Aging on Degradative and Secretory Autophagy in Primary Human Cells	$ 120,000 direct/yr 1	$ 240,000 total

5. W81XWH-11-1-0130 Principal Investigator Debnath (PI)

DOD BCRP Era of Hope Scholar Award	09/2011	08/2017
Eliminating Late Recurrence to Eradicate Breast Cancer.	$ 525,000 direct/yr 1	$ 3,775,682 total

6. SWCRF Prinicipal Investigator Debnath (PI)

Samuel Waxman Cancer Research Foundation	07/2013	06/2017
Effects of Autophagy on Carcinoma Differentiation and Aggression	$ 20,000 direct/yr 1	$ 210,000 total

RESEARCH AWARDS - SUBMITTED

1. R01 CA213775-A1 Principal Investigator Debnath (PI)

NIH/NCI	01/2018	12/2022
Stromal Fibroblast Autophagy In Tumor Progression and Desmoplasia	$ 250,000 direct/yr 1	$ 1250000 total

2. 1R01 AG057462 Principal Investigator MPI: Huang and Debnath (PI)

NIH/NIA	09/2017	08/2022
Autophagy and Exosome Loading in AD and FTD	$ 420000 direct/yr 1	$ 2167000 total

RESEARCH AWARDS - PAST

1. 1K08CA098419-01 Principal Investigator Debnath (PI)

NIH/NCI	2003	2009
Oncogenes and Luminal Apoptosis Within Mammary Acini	$ 127,150 direct/yr 1	$ 653,265 total

2. Culpeper Medical Scholar Foundation Principal Investigator Debnath (PI)

	2006	2009

	The Role and Regulation of Autophagy in Epithelial Cell Death	$ 108,000 direct/yr 1	$ 324,000 total

3.	AACR \Genentech BioOncology Career Award	Principal Investigator		Debnath (PI)
	Foundation		2006	2009)
	The Role and Regulation of Autophagy Downstream of HER Family Pathways		$ 50,000 direct/yr 1	$ 100,000 total

4.	Stewart Trust Foundation	Principal Investigator		Debnath (PI)
	Discovering New Autophagy Modulators For Cancer Chemotherapy		2007	2008
			$ 50,000 direct/yr 1	$ 50,000 total

5.	UC Cancer Research Coordinating Committee	Principal Investigator		Debnath (PI)
	CRCC		2007	2008
	Autophagy During HMEC Agonescence		$ 50,000 direct/yr 1	$ 50,000 total

6.	PBBR (Sandler) Integrative Research Award	Principal Investigator		Debnath (PI)
	Foundation		2009	2010
	Defining the Metabolic Consequences of Autophagy Using Magnetic Resonance Spectroscopy		$ 80,000 direct/yr 1	$ 80,000 total

7.	TRDRP 18XT-0106	Principal Investigator		Debnath (PI)
	UCOP		2009	2011
	Autophagy and K-Ras Mutant Lung Cancer Cells		$ 125,000 direct/yr 1	$ 250,000 total

8.	R01 CA126792-S1	Principal Investigator		Debnath (PI)
	NIH (ARRA Supplement)		2009	2011
	Autophagy and Epithelial Cell Fate During Anoikis and 3D Morphogenesis. Recovery Act Supplement		$ 66,000 direct/yr 1	$ 201,000 total

9.	HHMI Early Career Award For Physician Scientists	Principal Investigator		Debnath (PI)
	Regulation of ATG12 During Autophagy.		2006 $ 75,000 direct/yr 1	2012 $ 375,000 total
10.	AACR/SU2C - Stand Up To Cancer Breast Cancer Dream Team	Co-Investigator		Werb (PI)
	An Integrated Approach to Targeting Breast Cancer Molecular Subtypes and Their Resistance Phenotypes.		2009 $ Salary support only (5% effort) direct/yr 1	2012
11.	PBBR/Sanofi	Principal Investigator (Debnath and Xu)		Debnath (PI)
	PBBR New Frontiers Research Award (Sanofi UCSF LIFTT Award)		2011	2013
	Autophagy in Hypothalamus-Mediate Energy Balance and Obesity		$ 76,000 direct/yr 1	$ 149,000 total
12.	UCSF Breast Oncology Program	Principal Investigator		Debnath (PI)
	UCSF Breast Oncology Program/Breast Cancer SPORE Developmental Research Project		2013	2014
	Autophagy-Dependent Secretion and Breast Cancer Progression		$ 40,000 direct/yr 1	$ 40,000 total
13.	W81XWH-12-1-0505	Principal Investigator		Debnath (PI)
	DOD BCRP Innovator and Scholar Concept Award		2012	2014
	Targeting Autophagy in the Tumor Stroma To Eradicate Breast Cancer		$ 150,000 direct/yr 1	$ 300,000 total

14. R01 CA126792-01	Principal Investigator		Debnath (PI)
NIH		2009	2015
Autophagy and Epithelial Cell Fate During Anoikis and 3D Morphogenesis.		$ 174,000 direct/yr 1	$ 1,414,500 total

15. 8-Ball	Principal Investigator		Debnath (PI)
8-Ball Foundation		9/2013	1/2017
Metabolic Adaptation In Gastrointestinal Stromal Tumor (GIST)		$ 100,000 direct/yr 1	$ 250,000 total

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2. **Debnath J**, Baehrecke EH, Kroemer G Does autophagy contribute to cell death? Autophagy. 1: 66-74 (Invited Review), Jul/2005.
3. **Debnath J**, Brugge JS Modelling glandular epithelial cancers in three-dimensional cultures. Nat Rev Cancer. 5: 675-88 (Invited Review), 9/2005.
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7. Lock R, **Debnath J** Extracellular matrix regulation of autophagy. Curr Opin Cell Biol. 20: 583-8 (Invited Review), Oct/2008.
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9. Kenific CM, Thorburn A, **Debnath J** Autophagy and metastasis: another double-edged sword. Curr Opin Cell Biol. 22(2): 241-5. (Invited Review), Nov/27/2009.
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39. Monkkonnen T, **Debnath J**. Inflammatory Signaling Cascades and Autophagy in Cancer (Invited Review), 2017, **In press.**

BOOKS AND CHAPTERS

1. **J Debnath**, Fung C. The Dual Roles For Autophagy in Cell Death and Survival. Editor: V. Deretic. Autophagy in Infection and Immunity, First Ed. Wiley-VCH, Germany. 2006.
2. MS Sosa, Bragado P, **Debnath J***, Aguirre-Ghiso JA*. Regulation of Tumor Cell Dormancy By Tissue Microenvironments and Autophagy. Adv. Exp. Med. Biol, 2013, 734: 73-89. ***co-senior author.**
3. J Liu, **Debnath J**. The Evolving, Multifaceted Roles of Autophagy in Cancer. Editors: KD Tew, PB Fisher. Adv. Can. Res. Academic Press, UK. 2016, 130**:** 1-53.

SIGNIFICANT PUBLICATIONS

1. Roy. S, Leidal A, Ye J, Ronen S, and **Debnath J**. Autophagy-Dependent Shuttling of TBC1D5 Controls Plasma Membrane Translocation of Glut1 and Glucose Uptake. Molecular Cell. May 2017. **In press.**

   Significance: This paper defines a new function for autophagy in the control of glucose metabolism in cancerous and hypoxic cells. In response to increased glycolytic demand, autophagy induction coordinates glucose uptake from the extracellular milieu by enabling the retromer-dependent cell surface trafficking of the key nutrient transporter, Glut1. Role: Senior author. Dr. Srirupa Roy, a post-doc in my lab, and I designed the overall project. Dr. Sabrina Ronen, Professor of Radiology and Biological Imaging, helped design the NMR spectroscopy experiments. Srirupa was the primary individual experiments to carry out experiments with assistance from Dr. Drew Leidal and Jordan Ye in my lab. Srirupa Roy and I wrote the paper, with input from the other co-authors.

2. Kenific CM, Stehbens SJ, Goldsmith J, Leidal AM, Faure N, Ye J, Wittmann T, and **Debnath J**. NBR1 Enables Autophagy-Dependent Focal Adhesion Turnover. J. Cell Biol. 2016 Feb 29; 212(5):577-590.

   Significance: This paper is the first to demonstrate that autophagy facilitates the dynamic assembly and disassembly of cell-matrix focal adhesions (FAs) during cell migration and uncover the selective autophagy cargo receptor Neighbor of BRCA1 (NBR1) as a key mediator of autophagy-dependent FA remodeling. These findings provide unique mechanistic insight into how autophagy promotes migration by revealing a requirement for NBR1-mediated selective autophagy in enabling FA disassembly in motile cells. Role: Senior author. Candia Kenific, a PhD graduate student from my laboratory, and I designed the overall project. The experimental strategy and dynamic imaging protocols were developed in collaboration with Sam Stehbens and Torsten Wittmann from UCSF Cell and Tissue Biology. Candia and the other authors performed the experiments in the paper. Sam Stehbens and Torsten Wittmann provided key analytical tools for the quantitative analysis of focal adhesion turnover. Candia wrote the first draft of the paper, which I edited to create the final version.

3. Murrow L, Malhotra R, and **Debnath J**. ATG12-ATG3 Interacts with Alix to Promote Basal Autophagic Flux and Late Endosome Function. Nature Cell Biol. 2015 Mar 2; 17(3):300-10.

   Significance: This paper follows up our discovery of the ATG12-ATG3 conjugate and identifies a new biochemical interaction between ATG12-ATG3 and the ESCRT associated protein, Alix.. This paper expands our understanding of the interconnections between the core autophagy and ESCRT machineries in the control of basal autophagy, endosome-to-lysosome trafficking, and identifies a new role for autophagy pathway components in exosome biogenesis and secretion. Role: Senior author. Lyndsay Murrow, a PhD graduate student from my laboratory, and I designed the overall project and all of the individual experiments in the paper. Lynsday wrote the first draft of the paper, which I edited to create the final version.

4. Lock R, Kenific CM, Leidal AM, Salas E, **Debnath J**. Autophagy-Dependent Production of Secreted Factors Facilitates Oncogenic RAS-Driven Invasion. Cancer Discov. 2014 Apr; 4(4):466-79.

   Significance: This paper delineates a previously unrecognized function for autophagy in facilitating oncogenic RAS-driven invasion; an intact autophagy pathway is required for the elaboration of multiple secreted factors favoring invasion, including the proinflammatory cytokine IL6. Role: Senior author. Becky Lock, a PhD graduate from my laboratory, and I designed the overall project. We received major input on experiments from Candia Kenific, a BMS graduate student, and Andrew Leidal, a post-doc in my laboratory. All of the authors designed and carried out the major experiments in the paper. Becky wrote the first draft of the paper, which I edited, with input from the other co-authors, to create the final version.

5. Radoshevich L, Murrow L, Chen N, Fernandez E, Roy S, Fung C, **Debnath J**. ATG12 conjugation to ATG3 regulates mitochondrial homeostasis and cell death. Cell. 2010 Aug 20; 142(4):590-600.

   Significance: This paper challenges a long-held view in the autophagy field that ATG12, an ubiquitin-like modifier required for autophagy, possesses a single substrate, called ATG5. This paper uncovers that ATG12 is conjugated to ATG3, another enzyme required for autophagy. As individual proteins, both ATG12 and ATG3 are essential for early autophagosome formation. In contrast, the ATG12-ATG3 protein complex dramatically alters the mitochondrial network and the response to mitochondrial cell death. Overall, these results unveil a previously unrecognized role for ATG12-ATG3 in mitochondrial homeostasis, and implicate the ATG12 conjugation system in cellular functions distinct from the early steps of autophagosome formation. Role: Senior author. Lilly Radoshevich, a PhD graduate student from my laboratory, and I designed the overall project and all of the individual experiments in the paper. Lilly and the other co-authors carried out the experiments. Lilly wrote the first draft of the paper, which I edited to create the final version.

ACADEMIC LEADERSHIP

Vice Chair for Research, UCSF Department of Pathology

I oversee research operations and administering programs to foster basic and clinical-translational research by our faculty. With the other members of the Departmental Executive Committee, I also direct the recruitment and development of physician scientists in the Department.

OTHER CREATIVE ACTIVITIES

COMPETITIVE FELLOWSHIPS AND AWARDS OBTAINED BY TRAINEES WHILE THEY WERE IN DEBNATH LAB:

Lilly Radoshevich (PhD Student), Sandler/Genentech Predoctoral Fellowship, 2007-08.
Rebecca Lock (PhD Student), DOD Breast Cancer Predoctoral Fellowship, 2008-11.
Rebecca Lock (PhD Student), CRCC Predoctoral Fellowship, 2008-09 (declined).
Lilly Radoshevich (PhD Student), Phi Beta Kappa Scholarship, 2010.
Lilly Radoshevich (PhD Student), Keystone Scholarship (Travel award), 2010.
Lyndsay Murrow (PhD Student), NSF Graduate Fellowship, 2010-2013.
Candia Kenific (PhD Student), Genentech Predoctoral Fellowship, 2010-11.
Rebecca Lock (PhD Student), HDFCCC Student Invitee to Cancer Molecular Therapeutics Research Association Conference, 2011.
Candia Kenific (PhD Student), University of California Cancer Research Coordinating Committee Fellowship, 2011-12.
Rebecca Lock (PhD Student), DOD Era of Hope Meeting Outstanding Poster Award, 2011.
Jennifer Rudnick (Post-doc), NIH T32 Training Grant Recipient, 2011-13.
Candia Kenific (PhD Student), NRSA Graduate Student Fellowship (F31CA167905), National Cancer Institute, 2012-2015
Jennifer Rudnick (Post-doc), ACS Postdoctoral Fellowship Recipient, 2013-16 (terminated early to start DOD BCRP Fellowship).
Jennifer Rudnick (Post-doc), DOD Breast Cancer Postdoctoral Fellowship Recipient, 2013-16.
Hanna Kuznetsov (PhD Student), NSF Graduate Fellowship, 2013-2016.
Jasvinder Kaur (Post-doc), Keystone Scholarship (Travel award), 2014.
Hanna Kuznetsov (PhD Student), Discovery Fellow, UCSF Graduate Division, 2014.

Juliet Goldsmith (PhD Student), NSF Graduate Fellowship, 2014-2017.
Hanna Kuznetsov (PhD Student), HHMI-CTSI GEMS Fellowship, 2014 (declined).
Juliet Goldsmith (PhD Student), Discovery Fellow, UCSF Graduate Division, 2014.
Florie Mar (PhD Student, co-mentored with Brad Stohr), Discovery Fellow, UCSF Graduate Division, 2014.
Andrew Leidal (Post-doc), Banting Post-doctoral Fellowship, Canadian Institute of Health Research, 2015-17.
Andrew Leidal (Post-doc), Canadian Institute of Health Research Post-doctoral Fellowship, 2015 (declined).
Timothy Marsh (PhD Student), Discovery Fellow, UCSF Graduate Division, 2015.
Ari Vlahakis (Post-doc), NIH T32 Training Grant Recipient, 2016-18.
Timothy March (PhD Student), NRSA Graduate Student Fellowship (F31CA217015), National Cancer Institute, 2017-2020.
Tina Solvik (PhD Student), NSF Graduate Fellowship, 2017-2020.