CURRICULUM VITAE

NAME: **Patricia Lynn Opresko**

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EDUCATION AND TRAINING

Undergraduate			
1990 - 1994	DeSales University Center Valley, PA	B.S., 1994	Chemistry and Biology
Graduate			
1994 - 2000	Pennsylvania State University, College of Medicine, Hershey, PA	Ph.D., 2000	Biochemistry and Molecular Biology
Post-Graduate			
3/2000 - 5/2000	Pennsylvania State University, College of Medicine, Jake Gittlen Cancer Research Institute Hershey, PA	Postdoctoral Fellow	Dr. Kristin Eckert, Mutagenesis and Cancer etiology
2000 - 2005	National Institute on Aging, National Institutes of Health, Baltimore, MD	IRTA Postdoctoral Fellow	Dr. Vilhelm Bohr Molecular Gerontology and DNA Repair

APPOINTMENTS AND POSITIONS

Academic

8/1/2018 – present	Co-leader	Genome Stability Program, UPMC Hillman Cancer Center
5/1/2018-present	Tenured Professor	Pharmacology and Chemical Biology, School of Medicine, University of Pittsburgh, Pittsburgh, PA
2/1/2018-present	Tenured Professor	Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA
3/1/2014 – 1/31/2018	Tenured Associate Professor	Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA
5/1/2005 - 2014	Assistant Professor	Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA
3/2000-5/2000	Postdoctoral Fellow	Pennsylvania State University, College of Medicine, Jake Gittlen Cancer Research Institute Hershey, PA

Non-Academic

2000 - 2005	IRTA Postdoctoral Fellow	Laboratory of Molecular Gerontology, National Institute on Aging, National Institutes of Health, Baltimore, MD

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

1999 - prsent	American Association for Cancer Research
2005 - present	Environmental Mutagenesis and Genomics Society
2006 - present	University of Pittsburgh Cancer Institute. Molecular and Cellular Cancer Biology Program
2010-present	Invited member of the Center for Nucleic Acids Science and Technology, Carnegie Mellon University

HONORS

1991	Freshman Chemistry Achievement Award, CRC Press
1993	Delta Delta Chapter of Delta Epsilon Sigmas, National Catholic Collegiate Honor Society
1994	American Chemical Society Award, Lehigh Valley Chapter of ACS
1999	Special Conference Travel Grant Award, American Association for Cancer Research
1998-1999	Mentored Investigator Award, The Four Diamonds Fund of the Milton S. Hershey
2005	Travel Award, Environmental Mutagen Society
2006	Selected to present at the Senior Vice Chancellor's Research Seminar Series, University of Pittsburgh
2006	Ellison Medical Foundation New Scholar in Aging Research
2006	Outstanding New Environmental Scientist (ONES), NIEHS
2008, 2010	Annual Meeting of the Environmental Mutagen Society, Session Co-chair
2009	Annual International Conference on Environmental Mutagens, Session Co-chair
2011	2011 FASEB meeting on Helicases and NTP-Driven Nucleic Acid Motors, Session Chair
2012	2012 Gordon Conference on DNA damage, mutation and cancer; Session Chair
2015	Invited to give the keynote lecture at the Pennsylvania State University School of Medicine Graduate Student Research Forum.
2016	Elected as a Councilor of the Environmental Mutagenesis and Genomics Society for the 2017-2020 term.
2016	Research featured in Pittsburgh Post-Gazette and Pittsburgh Tribune Review
2017	NSMB article was selected for NIEHS Papers of the Month in January
2017	2017 Gordon Conference on Mammalian DNA Repair; Session Chair
2017	Research was highlighted in PittMed Magazine: Summer 2017
2018	Invited Public Lecture at the annual meeting for the German DNA Repair Society, Karlsruhe, Germany.

2018	Glenn Award for Research in Biological Mechanisms of Aging
2019	Elected next Vice Chair and Chair of the Gordon Conference on Mammalian DNA Repair
2020	Invited Keynote Lecture at the 5th Canadian Symposium on Telomeres and Genome Stability
2020	Elected as DNA Repair SIG representative to the Program Committee for EMGS
2020	Invited Keynote Lecture: NIEHS Outstanding New Environmental Scientist Virtual Grantee Meeting
2020	Merrill J. Egorin Excellence in Scientific Leadership Award, UPMC Hillman Cancer Center

PROFESSIONAL ACTIVITIES

Teaching

Courses Taught

Years Taught	**Course Number: Title**	**Hours of Lecture, credits Average Enrollment**	**Role in course Primary/Coordinator**
Spring biennial 2006-2020	EOH 3305, MSMPHL 3330 and MSBMG 3530: Genome instability and human disease	1.5 hrs, 3 credits 5 students 3 lectures	Co-director with Drs. Bennett Van Houten and Chris Bakkenist
2010-2011 Spring 2014-2021	HUGEN 2031 Introduction to Human Genetics	2 hr, 2 credits 21 students	Lecturer Director: Dr. Candace Kammerer
Fall 2007-2020	EOH 2175: General Toxicology	1.5 hr, 3 credits 2 lectures 15 students	Lecturer Director: Dr. James Fabisiak
Fall biennial 2010-2012 2015-2020	EOH 2310: Molecular Fundamentals	3 hrs, 3 credits 6 students	Lecturer Director: Dr. Peter Di
Spring 2015, 17, 19, 21	EOH 3210: Pathophysiology and Environmental Disease	1.5 hrs, 12 graduate students	Lecturer Director: Berthony Deslouches

Years Taught	Course Number: Title	Hours of Lecture, credits Average Enrollment	Role in course Primary/Coordinator
Summer biennial 2008-2016	EPIDEM 2980 Biology and Physiology of Aging	1 hr, 1 credit, 15 students 1 lecture	Lecturer Director: Dr. Anne Newman
2013-2015	MLB 1: Methods and Logic in Biomedicine	2 hrs, 6 Tsinghua Students	Facilitator/ Dr. Peter Drain Course Director
Fall 2011	MSELCT 5130-1020. M.S.T.P. Research Basis of Medical Knowledge SOM, 2nd year students	1.5 hr 16 sessions 11-16 students	Co-director with Dr. ennett van Houten
Fall/Spring 2006-10	MSLECT 5130-1020. M.S.T.P. Research Basis of Medical Knowledge SOM, 1st year students	1.5 hr 12 sessions 11-16 students	Co-director with Dr. Richard Steinman
Fall 2005-08	EOH 2310: Molecular Fundamentals	1 hr, 3 credits 7 Lectures	Lecturer Directors: Dr. Paul Reynolds Dr. Sy Garte

Other Teaching (lectures, tutorials and continuing education courses)

Date(s)	Type of Teaching	Title
Fall 2006	1hr lecture "Basic orientation to 'bench' biomarkers of age with an emphasis on telomeres" to faculty, postdoctoral fellows and graduate students.	Biomarkers of Aging Workshop November 7, 2006 The Pittsburgh Mind-Body Center
Fall 2006	Preceptor for article "The aflatoxin B(1) formamidopyrimidine adduct plays a major role in causing the types of mutations observed in human hepatocellular carcinoma." Smela et al. 2002 PNAS.	EOH 2176: Principles of Toxicology Conference EOH Graduate Program
Fall 2006	Preceptor for article "Xeroderma pigmentosum variant (XP-V) correcting protein from HeLa cells has a thymine dimer bypass DNA polymerase activity". Matsutani et al. 1999 EMBO J	EOH 2176: Principles of Toxicology Conference EOH Graduate Program

Date(s)	Type of Teaching	Title
Spring 2006	Lecture on experience with the peer review for a publication "POT1 Stimulates RecQ Helicases WRN and BLM to Unwind Telomeric DNA Substrates" Opresko *et al.*, 2005, Journal Biological Chemistry.	EOH 2109: Graduate Program in Molecular Toxicology Journal Club
Fall 2005	Mentor/preceptor for student presentation of the article "DNA Helicase Srs2 disrupts the Rad51 presynaptic filament" Krejci 2003 Nature.	EOH 2311: Mol Fundamentals Conference. EOH Graduate Program
Fall 2005	Mentor for Aaron Secrest and Oni Obi for their presentation of the article "Defective Telomere Lagging Strand Synthesis in Cells Lacking WRN Helicase Activity" Crabbe *et al*, 2004, Science.	Journal Club 2nd year MD/PhD students
Fall/Spring 1996-1997	Tutored Medical Students for the Biochemistry course	Dept. Biochemistry, Pennsylvania State University School of Medicine
1993-1994	Private high school Chemistry tutor	Undergraduate Chemistry, Center Valley, PA
1991-1994	Peer tutor in under-graduate Biology	Biology Dept, DeSales University, Center Valley, PA

Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Gerald Nora	PhD, MBSB April 2010	Thesis, Processing of Alternative DNA Structures in the Human Telomere	Medical Director, Ascension Sacred Heart Rehabilitation Hospital, Adjuct Professor, Medical College of Wisconsin,
Rama Rao Damerla	Ph.D., HuGen April 2011	Werner Syndrome protein and telomeric DNA replication	Assistant Professor, Department of Medical Genetics Kasturba Medical College Manipal Academy of Higher Education Manipal, Karnataka, India

Hannah Pope-Varsalona	Ph.D., EOH August 2014	Cellular Defense against Telomere Dysfunction Induced by Exogenous Genotoxicants	Toxicologist, Health Effects Division of the Office of Pesticide Program EPA
Dhvani Mukesh Parikh	Ph.D., EOH December 2014	Nucleotide Excision Repair at Telomeres	Toxicologist at the U.S. Green Building Council, Washington, D.C.
Samantha Sanford	Ph.D., IDM August 2020	Mechanisms of Telomerase Inhibition by Oxidized and Therapeutic dNTPs	Postdoctoral fellow UPMC Hillman Cancer Center
Samuel Johnson	Ph.D., MBSB Expected 2022	TBA	
Sanjana Ajay Thosar	Ph.D., MGDB, Epected 2023	TBA	

Service on Masters or Doctoral Committees

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
03/02/20-present	Marlo Thompson	PhD, Basic Medical Sciences, University of South Alabama	TBA
11/18/20-present	Dennis Carl Braden	PhD, Molecular Pharmacology	TBA
8/20/20-present	Mohd Azrin Bin Jamalruddin	PhD, Molecular Pharmacology	TBA
8/4/2020-present Chair	Hayley Lynn Rein	PhD, Molecular Pharmacology	TBA
8/4/2020-present	Pattra Chun-On	PhD, Environmental and Occupational Health	TBA
7/30/20-present Chair	Angela Marie Hinchie	PhD, Molecular Pharmacology	TBA
4/29/20	Pinelopi Kroustallaki	PhD, University of Oslo	Functions of SMUG1 and NEIL3 in telomere homeostasis. By Zoom.

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
7/2019-present Chair	Namrata Kumar	PhD, Molecular Genetics and Developmental Biology	TBA
6/2019-present	Kirill Lavrenyuk	PhD, Molecular Biophysics and Structural Biology Program	TBA
6/2019-present	Daniel Whitefiled	PhD, Biomedical Engineering, CMU	TBA
9/2018-present	Thong The Luong	PhD, Molecular Pharmacology	TBA
4/2018	Xiaoshuang Xun	MPH, Epidemiology	The association between telomere length and risk of breast cancer in Singapore Chinese Health Study
4/2018	Meiyuzhen Qi	MPH, Epidemiology	The role of telomere length in the risk of colorectal cancer incidences: A cohort study from the Singapore Chinese Health Study
10/2017-12/2019	Song-My Hoang	PhD, Pharmacology and Chemical Biology	Roles of Parylation on Telomere Maintenance by ALT
10/2016-11/2019	Emily Beckwitt	PhD, Molecular Structural Biology and Biophysics	Single Molecule Studies of XPA Protein on DNA
4/21/2016 thesis defense	Stanley Oyaghire	PhD, Chemistry, Carnegie Mellon University	Recognition of Guanine Quadruplexes by PNA and Gamma-PNA Oligomers
6/15-12/18	Meghan Sullivan	PhD, Molecular Genetics and Developmental Biology Program	Functional Insightes into Rad51 Regulatory Proteins in Homologous Recombination

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
6/14-6/30/2017	Muwen Ben Kong	PhD, Molecular Structural Biology and Biophysics	Single-Molecule Studies of Rad4-Rad23 Reveal a Dynamic DNA Damage Recognition Process
2/28/14-8/18/2016	Kyle Knickelbein	PhD, Chemical Biology and Pharmacology	Mechanisms and Novel Therapeutic Approaches for KRAS-Mediated Resistance to Anti-EGFR Therapy in Colorectal Cancer Cells
12/3/2013-1/2016	Dushani Palliyaguru	PhD, Environmental and Occupational Health	Characterizing Withaferin A as a novel Nrf2 inducer: implications for liver disease prevention
12/18/2013-7/14/2016	Sean Carney	PhD, Molecular Structural Biology and Biophysics	Characterizing excluded strand DNA interactions with hexameric helicases and determining roles in unwinding mechanisms
8/23/2013-12/2015	Stephen K. Godin	PhD, Molecular Genetics and Developement Biology program	The Shu complex is a conserved regulator of Rad51 filament formation
2/3/2012	Karin Solvang-Garten	PhD Molecular Medicine	X-ray Repair Cross-Complementing Protein 1 – the roles as a scaffold protein in Base excision repair and Single strand break repair Norwegian University of Science and Technology, Trondheim, Norway

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
4/2010-6/2012	Advaitha Madireddy	PhD Human Genetics	Linking the Multiple Functions of XPF-ERCC1 Endonuclease in DNA Repair to Health Outcomes: Cancer and Aging
10/2010-12/2011	Matt Fagerburg	PhD Molecular Biophysics and Structural Biology	Discern Mechanism of RecA displacement from DNA by PcrA
10/2009-11/2009	Nikhil Bhagwat	PhD Human Genetics	ERCC1-XPF nuclease: roles in the repair of DNA interstrand crosslinks and chemotherapy resistance
6/2009-8/2014	Brian Graham	PhD Chemistry	Mechanistic and Functional Characterization of *Sulfolobus solfactaricus* Primosome Components
1/2009-5/2009	Zuzanna Bukowy	PhD	Factors Regulating the Enzymatic Activity of WRN Protein Institute of Biochemistry and Biophysics Polish Academy of Science, Warsaw, Poland
2/2009-7/2012	Kristin Klucevsek	PhD Biological Science	Investigating the Nuclear Role of the Conserved Ubiquitin Ligase Rkr1
9/2007-4/2009	Antonia Nemec	PhD Environmental Health	Signaling Mechanisms for Gene Regulation by Metals and Metal Mixtures
8/2007-	Brooke McClendon	Microbiology and Molecular Genetics	Withdrew

Service on Comprehensive or Qualifying Examination Committees

Dates Served	Student Population	Type of Exam (Qualifying/Comprehensive)
5/2020	Priya Raja, PhD student, Molecular Pharmacology	Comprehensive Exam
9/2020	Yu Hong Wang, PhD student, Molecular Biophysics and Structural Biology	Comprehensive Exam
8/2020	Dennis Carl Barden, PhD student, Molecular Pharmacology	Candidacy exam
5/2020	Mohd Azrin Bin Jamalruddin, PhD student, Molecular Pharmacology	Candidacy exam
5/2020	Hayely Lynn Rein, PhD student, Molecular Pharmacology	Candidacy exam, chair
5/2020	Pattra Chun-On, PhD student, Environmental and Occupational Health	Qualifying exam, chair
8/2019	Daniel Whitefield, PhD student, Biomedical Engineering, Carnegie Mellon University	Qualifying exam
4/2019	Meghan Matlack, PhD student, Environmental and Occupational Health	Qualifying Exam, chair
11/2017	Amrita Sahu, PhD student, Environmental and Occupational Health	Qualifying Exam, chair
6/2016	Emily Beckwitt, PhD student, Molecular Biophysics and Structural Biology Program	Comprehensive Exam, chair
6/2016	Emilie Castronio, PhD student, Environmental and Occupational Health	Qualifying Exam, chair
6/2014	Kindra Witlatch, PhD student, Molecular Biophysics and Structural Biology Program	Comprehenisve Exam, chair
6/2014	Meghan Sullivan, PhD student, Molecular Genetics and Developmental Biology Program	Comprehensive Exam
11/2014	Teresa Anguiano, PhD student, Environmental and Occupational Health	Qualifying Examination, chair

Dates Served	Student Population	Type of Exam (Qualifying/Comprehensive)
10/24/13	Amin Cheikhi,, 1 PhD student, Environmental and Occupational Health	Qualifying Examination, chair
7/29/13	Stephen K. Godin, 1 PhD student, Molecular Genetics and Developemental Biology program	Comprehensive Examination
7/23/13	Courtney Roper, 1 PhD EOH student	Qualifying Examination, chair
7/9/13	Muwen Ben Kong, 1 PhD student, Molecular Biophysics and Structural Biology program	Comprehensive Examination
12/7/11	Shilpi Oberoi, 1 PhD EOH student	Qualifying Examination, chair
6/15/10 3/30/11	Advaitha Madireddy, 1 PhD Human Genetics student	Qualifying Examination Comprehensive Examination
4/19/10	Lolita Nidadavolu, 1 MD/PhD Microbiology and Molecular Genetics student	Comprehensive Examination
1/04/10	Shannen Liu, 1 PhD EOH Student	Qualifying Examination, Chair
12/10/09	Brian Graham, 1 PhD Chemistry student	Comprehensive Examination
12/16/08	Thomas Biksey, 1 PhD EOH student	Qualifying Examination
11/11/2008	Pornsri Khlangwiset, 1 PhD EOH student	Qualifying Examination Chair of exam committee
7/9/2008	Wazo Myint, 1 PhD MBSB student	Comprehensive Examination
5/30/2008	Elisenda Lopez-Manzano, 1 PhD EOH student	Qualifying Examination
4/22/2008	Eileen Bauer, 1 PhD EOH student	Qualifying Examination: Chair of exam committee
3/06/2008	Andria Robinson, 1 PhD Human Genetics student	Qualifying Examination
7/11/2007	Brooke McClendon 1 PhD Molecular Genetics and Biochemistry student	Comprehensive Examination
4/10/2007	Rama Damerla, 1 PhD Human Genetics, student	Qualifying Examination

Supervision of Post-Doctoral Students, Residents, and Fellows

Dates Supervised	Name of Student	Position of Student
12/2019-	Samantha Sanford	Postdoctoral fellow
1/2019-	Mariarosaria de Rosa	Postdoctoral fellow
8/2017-	Ryan Barnes	Postdoctoral fellow
6/2014-12/2018	Elise Fouquerel	Assistant Professor, Thomas Jefferson University
8/2015-12/2017	Arindam Bose	Principal Scientist, Dept of Rdiation Oncology, Dana Farber Cancer Institute/ Harvard Medical School
2/2011-12/31/14	Connor Murphy	Laboratory Associate, Point Park University, Department of Natural Sciences, Engineering and Technology
9/2007-3/2011	Fujun Liu	Associate Director, Head of Product Characterization and Risk Assessment, Takeda, Cambridge, MA

Other Teaching and Training – Mentoring/ Supervising Students

Dates	Teaching Activity	Program/Description
2020 Fall	Trey Harkness, PhD rotation student	IBGP Molecular Pharmacology
2020 Summer	Geyon Garcia, PhD rotation student	MSTP program
2019 Fall	Kaylee Ermine, PhD rotation student	IBGP Molecular Parmacology
2019 Summer	Sachi Dhakal	SURP, MGDB program
2019 Winter	Sanjana Ajay Thosar, PhD rotation student	Molecular Genetics and Developmental Biology graduate program University of Pittsburgh School of Medicine
2018 Fall	Pattra Chun-On, PhD rotation student	Evironmental and Occupational Health
2017 Fall	Samuel Johnson, PhD rotation student	Molecular Biophysics and Structural Biology graduate program University of Pittsburgh School of Medicine
2016-18 Summer, Winder 2019	Adam Barsok, undergraduate	Undergraduate internship
2015 Summer	Adam Barsouk, high school student	UPCI Academy

Dates	Teaching Activity	Program/Description
2015 Spring	Lisa Clark, PhD Student in MBSB program	MBSB MB2 class; student present a research article from a selected mentors' lab
2014 Fall	Lu Yang, rotation medical student	University of Pittsburgh and Tsinghua University Medical Research Scholars program
2014 Spring	Meghan Sullivan, rotation PhD student	Molecular Genetics and Developmental Biology graduate program University of Pittsburgh School of Medicine
2013 Fall	Jingei Chen, rotation medical student	University of Pittsburgh and Tsinghua University Medical Research Scholars program
2013 Fall	Hanqi Tang, rotation medical student	University of Pittsburgh and Tsinghua University Medical Research Scholars program
2013 Summer	Laura Congelio, undergraduate student	EOH summer undergraduate research program
2012 Summer	Ashley Grinage,high school student	PITT STEER program, Short Term Education Experience in Research
2011 Summer	Vera Filatova, undergraduate student,	EOH summer undergraduate research program
2011 Spring, Summer	Cassandra Krise, Human Genetics Masters student	Work study student
2010 Summer	Steven Strutt, undergraduate student	EOH summer undergraduate research program
2009 Summer	Nathan Smith, first year medical student	Medical Student Training in Aging Research (MSTAR) Program sponsored by The American Federation for Aging Research and the National Institute on Aging
2009 Summer	Devin Kepchia, undergraduate student	EOH summer undergraduate research program
2009 Winter	Workshop with GSPH graduate students	Dean's Day abstract preparation session
2008 Summer 2008 Fall	Abbe Jackson, undergraduate student	EOH summer undergraduate research program
2006 Summer	Hannah Colabrese, undergraduate student	EOH summer undergraduate research program

Dates	Teaching Activity	Program/Description
2004 Summer	Shamika Danzy, MS graduate student	NIH Summer Internship Program
2000 – 2002	Jean Philippe Laine, PhD graduate student -	Laboratory of Molecular Gerontology, National Institute on Aging, NIH
2003	Mentor for high school students	NIH sponsored Women in Science Day

Research and Training

Grants and Contracts Received

Principal Investigator

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
Current Support				
06/01/19-03/31/27	R35ES030396/ Excision Repair of Environmental Telomere Damage	NIH, NIEHS Score = 10	$638,303	50%
03/08/17-02/28/22	R01CA207342/ Roles of Telomere Oxidative DNA Lesions in Telomere Length	NCI, NIH Co-PI with Sua Myong	$298,115	14%
Past Support				
07/01/2017-06/30/20	R33ES025606/ ROS Driven Mitochondrial-Telomere Dysfunction During Environmental Stress	NIEHS, NIH *co-PI with Ben Van Houten	$357,635	6%
09/20/18-09/19/20	Glenn Award for Research in Biological Mechanisms of Aging – unsolicited	Glenn Foundation for Medical Research	$60,000 No indirect	0%
03/20/18-03/19/20	FY18 Aging Institute Seed Grant Program/Examining the spatio-temporal role of oxidative telomere damage on healthspan and lifespan by optogenetics	UPMC Aging Insitute. Co-PI with Aditi Gurkar	$7,000 No indirect	0%

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
09/01/17-05/31/19	R01ES028242/ Inhibition of telomere maintenance by oxidized DNA precursors	NIEHS, NIH Terminated due to R35	$233,716	25%
09/01/13-05/31/19 NCE	R01ES022944/ Mechanisms of Telomere Resistance to DNA Lesion Removal	NIEHS, NIH	$208,539	22%
06/01/16-05/31/19	R44GM108187 Phase II – GammaPNA Miniprobes for Telomere Analysis and RNA FISH	NIGMS, NIH *Co-PI with Bruce Arimitage and PNA Innovations	$78,671	10%
11/01/16-10/31/18	Creating transgenic mice to illuminate roles for mitochondrial and telomere damage in cancer and aging.	Stimulating Pittsburgh Research in Geroscience Pilot Project Award *co-PI with Marcel Bruchez and Greg Delgoff	$30,000	0%
02/09/2016-02/08/2017	Investigating a non-canonical function of DNA polymerase eta in the maintenance of telomere integrity	Stimulating Pittsburgh Research in Geroscience Pilot Project Award *co-PI with Roderick O'Sullivan	$30,000	0%
03/01/2015-02/28/2017	R21ES025606/ ROS Driven Mitochondrial-Telomere Dysfunction During Environmental Stress	NIEHS, NIH *co-PI with Ben Van Houten	$140,209	8%

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
07/2013-07/2014	Role of Telomere and Mitochondria Cross-talk in Cellular Aging	University of Pittsburgh Aging Institute Pilot Program *Co-PI with Bennett Van Houten	$20,000	none
07/01/2013-06/30/2015	R34GM108187/Gamma PNA Miniprobes for Telomere FISH	NIGMS, NIH *Co-PI with Bruce Arimitage and PNA Innovations	$50,000	8%
07/01/2013-06/30/2015	R21AG045545/Oxidative DNA Base Damage and Repair at Telomeres and the Relevance to Cell Senescence	NIA, NIH *Co-PI with Li Lan	$137,500	10%
01/01/2013-12/31/2013	Mechanisms of Telomeric DNA Loss and Repair	University of Pittsburgh Bridge Funding	$100,000	0%
08/01/2011-07/31/2012	Mechanisms of Telomeric DNA Loss and Repair	University of Pittsburgh Bridge Funding	$69,302	0%
12/01/2010-11/30/2012	Impact of UV-induced DNA damage on telomere integrity	The Specialized Program of Research Excellence in Melanoma & Skin Cancer	$35,000	5%
07/01/2006-06/30/2011	1R01ES015052-01/ Mechanisms of Telomeric DNA Loss and Repair	NIEHS, ONES program	$300,00	80%
08/15/2009-07/31/2011	3R01ES015052-04S1/”Mechanisms of Telomeric DNA Loss and Repair”	NIEHS / Recovery Act Funds for Administrative Supplement	$218,268	80% (parent grant)

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
07/01/2008-06/30/2010	Relationship of Age-Related Cataracts and Telomere Length in Human Collaboration with Dr. Ann Newman at the University of Pittsburgh	Small Grants Program of the Central Research Development Fund-University of Pittsburgh	$14,900	Supplies only
07/2006-06/2010	Molecular Mechanisms of Telomeric DNA Instability Associated with the Human Progeroid Werner Syndrome	Ellison Medical Foundation New Scholars in Aging Program	$50,000	20%
Oct 18-22 2008	Awarded to support the symposia on "DNA Damage in Neurodegeneration, Aging and Cancer" and "Consequences of Genotoxic Damage to Mitochondrial DNA" and the plenary lecture by Dr. Jerry Shay on "Aging and Cancer: Are Telomeres and Telomerase the Connection?" at the 39th Annual Meeting of the Environmental Mutagen Society held October 18-22, 2008 in Rio Grande, Puerto Rico.	Ellison Medical Foundation	$10,000	0
Aug 20-25 2009	Awarded to support the symposia on "DNA Damage Repair and Aging" at the 10th International Conference on Environmental Mutagens held in Florence, Italy.	Ellison Medical Foundation	$10,000	0

Co-Investigator or Sponsor on Grants

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
Current Support				
08/01/20-07/31/25	P30CA047904/ Cancer Center Support Grant	NCI PI: Ferris	$33,730,590 (total)	5%
06/01/20-05/31/23	F32AG067710/ Investigating the Impact of Telomere Specific Oxidative Base Damage in Cellular Aging.	NIA PI: R Barnes Sponsor: P Opresko	$65,300	0
01/01/18-12/31/21	R01GM123246/ Sequence and structure specific DNA binding by cohesion and genome stability	NIGMS, NIH *Hong Wang (PI)	$50,160	2%
Past Support				
12/01/17-11/30/20	R01ES028686/ Damage sensor role of UV-DDB during base excision repair	NIEHS, NIH *Ben Van Houten (PI)	$11,929	4%
12/01/16-11/30/18	R21CA212628/ Leukocyte telomere length in bladder cancer survivors: diet and exercise trial	NIA, NIH PI- Bovbjerg	$4,506	1.5%
06/01/14-12/31/14	The Center for Nucleic Acids Science and Technology: An Interdisciplinary Research Center	DSF Charitable Foundation	$28,000	0%
01/01/11-5/31/14	The Center for Nucleic Acids Science and Technology: An Interdisciplinary Research Center	DSF Charitable Foundation	$112,334	0%

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
1/01/2010-6/30/2013	Kirschstein-NRSA Individual Fellowship, 1F30AG032861-01A1 "Processing of Alternative Structures in Telomeric DNA" Award to student Gerald Nora	NIA	$46,176	0% Sponsor

Invited Lectureships and Major Seminars Related to Your Research

Date	Title of Presentation	Venue
April 19, 2021	How Oxidative Damage Impacts Telomere Function	University of Pennsylvannia Center for Genome Integrity, Virtual. Invited by Roger Greenberg.
Feb 26, 2021	The Consequences of Oxidative DNA Damage at Telomeres	IUPUI, School of Science, Dept. of Biology, invitation from graduate students for guest speaker "whose research has made a significant impact in the biological sciences."
Nov 12, 2020	Role of Oxidative Damage in Telomere Structure and Maintenance	Nucleic Acid Secondary Structures G4s and Beyond. Webinar Series. Universitats Klinikumbonn, University Hospital Bonn, Germany.
Oct 26, 2020	Telomere and Genome Integrity in Cancer and Aging	Age-dependent changes in cancer biology, NCI, virtual workshop.
Sept 24, 2020	Role of oxidative DNA damage in telomere homeostasis	Molecular Biophysics Structural Biology Department Seminar Series, University of Pittsburgh. Virtual.
July 27, 2020	A ONES Journey to the RIVER: How NIEHS Transformed my Career	Invited Keynote for the Outstanding New Environmental Scientist (ONES) Grantee Meeting. Virtual. NIEHS

Date	Title of Presentation	Venue
June 18, 2020	Mechanisms of telomerase inhibition	HCC Annual Retreat, Pittsburgh, PA. Cancelled due to COVID19
June 7, 2020	Oxidative base damage at telomeres promotes telomere loss and crisis	FASEB: The Dynamic DNA Structures in Biology Conference, Nova Scotia, Canada. Postponed due to COVID19
May 19, 2020	How Oxidative Stress Accelerates Telomere Loss	5th Canadian Symposium on Telomeres and Genome Integrity 2020, Canmore, Alberta. Postponed due to COVID19
April 28, 2020	Impact of Oxidative DNA Damage on Telomere Maintenance	University of Oslo, Oslo, Norway. Invited by Dr. Hilde Loge Nilsen. Postposed due to COVID19
March 30, 2020	The impact of oxidative DNA damage on telomere maintenance	EACR, DNA Damage Responses and Cancer: Innovations from Radiobiology to Radiotherapy, Cambridge, UK. Cancelled due to COVID19
March 17, 2020	Using chemoptogenetics to study cellular responses to telomeric-specific 8-oxoguanine damage	DNA Repair Video Conference, NIH. Hosted at the University of Pittsburgh.
December 13, 2019	Investigating How Oxidative Stress Accelerates Telomere Loss: Implications for Cancer and Aging	Washington University, St. Louis, MO. Invited by Nima Mosammaparast.
October 18, 2019	Using a Molecular Sniper to Uncover How Oxidative Stress Shorten Telomeres	Science 2019. University of Pittsburgh, PA.
October 1, 2019	Role of oxidative DNA damage in telomere maintenance: Implications for aging and cancer	University of Pittsburgh, Dept. of Medicine, Pulmonary Allergy and Critical Care Medicine Basic Translational Research Conference. Invited speaker

Date	Title of Presentation	Venue
September 23, 2019	Novel Precision Tools for Studying DNA Damage and Repair	2019 EMGS 50th Annual Meeting, Washington, DC. Invited speaker
June 23, 2019	The Impact of Oxidative DNA Base Damage on Telomere Maintenance	Gordon Research Conference on Nucleoside, Nucleotides and Oligonucleotides. Newport, RI. Invited speaker.
May 13, 2019	Investigating the Role of Oxidative Stress in Telomere Maintenance	Molecular Biophysics and Structural Biology Graduate Program Annual Symposium. University of Pittsburgh and Carnegie Mellon U. Invited by PhD students.
April 30, 2019	Targeted oxidative telomere base damage induces growth arrest and senescence in normal human cells	Telomeres and Telomerase, CSHL meeting. New York. Invited session chair and speaker. Talk delivered by trainee Ryan Barnes as per tradition for this conference.
March 22, 2019	Investigating How Oxidative Stress Accelerates Telomere Loss: Implications for Cancer and Aging	Florida International University, Miami, FL. Invited by Dr. Yuan Liu.
February 14, 2019	Why Our DNA Ages	14th Annual University of Pittsbrugh Winter Academy. Naples, FL.
February 11, 2019	Induction and Repair of Damage in Telomeres	Gordon Research Conference on Mammalian DNA Repair. Ventura, CA.
January 22, 2018	Telomeres: At the Interface of Cancer and Aging	UPMC Hillman Cancer Center Council Meeting. Pittsburgh, PA
January 17, 2018	Investigating How Oxidative Stress Accelerates Telomere Loss: Implications for Cancer And Aging	Brain, Behavoir, and Cancer Seminar Series. The Biobehavioral Oncology Program, UPMC Hillman Cancer Center. Pittsburgh, PA

Date	Title of Presentation	Venue
November 2018	The impact of oxidative DNA lesions on telomere maintenance	Annual meeting of the Society for Redox Biology and Medicine. Chicago, IL.
October 2018	Telomeres in the Spotlight: Illuminating how stressed out telomeres contribute to disease	Science 2018. University of Pittsburgh, PA.
September 2018	DNA damage and repair at telomeres: implications for cancer and aging	Keynote lecture. Annual meeting of the German DNA Repair Society, Karlsruhe, Germany.
July 2018	Investigating how oxidative DNA base damage modulates telomere structure and function	Dynamic DNA Structures in Biology, FASEB Scientific Research Conferences, St. Bonaventure, NY.
May 2018	Investigating how oxidative DNA base damage alters telomere maintenance	EMBO workshop on Telomeres in Health and Human Disease. Troia, Portugal.
February 2018	Investigating how oxidative stress accelerates telomere loss: implications for cancer and aging	Magee-Womens Research Institute's Work-in-Progress (WIP) Seminar
November 2017	Telomeres: At the Interface of Aging and Cancer	One Book One Community, GSPH, University of Pittsburgh. Invited by Jessica Burke
November 2017	Telomeres: At the Interface of Aging and Cancer	Learner series. Inventionland, Fox Chapel, PA. Invited by Mr. Davidson, CEO.
October 2017	The impact of oxidative stress and DNA damage on telomere maintenance	IUBMB Meeting on "Molecular Aspects of Aging and Longevity". Athens, Greece. Invited by Stathis Gonos
October 2017	A New Tool For Examining Crosstalk Between Telomere and Mitochondrial Dysfunction	The 7th Regional Translational Research on Mitochondria, Metabolism, Aging, and Disease Symposium. Pittsburgh, PA.

Date	Title of Presentation	Venue
September 2017	Environmental Exposures and Telomere Effects	Workshop on Exploring Telomeres as Sentinels for Environmental and Psychosocial Stress and Susceptibility, NIEHS and NIA. RTP, NC. Speaker and session chair.
September 2017	Oxidative DNA damage and repair at telomeres	48th Annual Meeting of the Environmental Mutagenesis and Genomics Society. Raleigh, NC. Speaker and session chair.
June 2017	Attacking telomeres and telomerase	29th Annual UPCI Scientific Retreat Satellite Conference: New Therapeutic Strategies in Killing Tumor Cells: Exploiting Genome Instability. Pittsburgh, PA. Speaker and Co-chair
May 2017	Excision repair at telomeres	Conference on Nucleotide Excision Repair and Interstrand Cross-link Repair – from molecules to humans. Smolenice, Slovakia. Invited by chair.
March 2017	DNA damage and repair at telomeres	Seminar Series for NIEHS Training Program in Environmental Health Sciences, University of California, Davis, CA. Invited by students.
February 2017	Dual role for 8-oxoguanine in regulating telomerase activity	Gordon Research Conference on Mammalian DNA Repair, Ventura, CA. Speaker and session chair.
January 2017	DNA repair at telomeres and the implications for cancer and aging.	Department of Pharmacology and Chemical Biology. University of Pittsburgh School of Medicine, seminar series.
August 2016	DNA damage processing at telomeres: maintaining youthful chromosomes	MBSB student orientation research talks, University of Pittsburgh
May 2016	Investigating roles for RecQ helicases in telomere replication	RECQ2016 – Partnering for progress. 3rd international meeting on RECQ helicases in biology and medicine. Seattle, WA.

Date	Title of Presentation	Venue
April 2016	The impact of oxidative DNA damage on telomerase activity and telomere maintenance	EMBO Meeting on Telomeres, Telomerase and Disease. Liege, Belgium. Speaker and session chair.
March 2016	The impact of oxidative DNA damage on telomere maintenance and telomerase activity	University of Kansas Medical Center, Kansas City, KS.
November 2015	The health consequences of persistent DNA damage: Lessons learned from telomeres.	Special Seminar: The 2015 Nobel Prize in Chemistry. Celebrating the Science of DNA Repair. University of Pittsburgh
October 2015	Roles for telomere maintenance in melanoma risk and melanomagenesis	International Melanoma Working Group (IMWG), Marseille, France.
October 2015	How the very tips of chromosomes influence biological systems	Science 2015, University of Pittsburgh
September 2015	Investigating how oxidative DNA damage influences telomere maintenance	EMGS Annual Meeting, New Orleans, LA.
June 2015	Investigating how oxidative DNA damage influences telomere maintenance	University of Pittsburgh Mini-Symposium on Genome Stability
April 2015	Structural Dynamics of Telomeric DNA	Molecular Biophysics and Structural Biology Department, University of Pittsburgh School of Medicine.
March 2015	Mechanisms of Telomere Loss and Preservation: Implications for Aging and Cancer	EOH Departmental Seminar, which reception to follow. University of Pittsburgh, GSPH.
March 2015	DNA damage processing at telomeres: maintaining youthful chromosomes	DNA Repair Video Conference, NIH. Hosted at the University of Pittsburgh.
March 2015	How Penn State College of Medicine launched my career in biomedical basic research, and lessons learned along the way.	Penn State College of Medicine Graduate Student Research Forum, Keynote Speaker. Hershey, PA.
March 2015	Mechanisms of Telomere Loss and Preservation: Implications for Aging and Cancer	Penn State College of Medicine Graduate Student Research Forum, Keynote Speaker. Hershey, PA.

Date	Title of Presentation	Venue
February 2015	Telomeres are Proficient for Nucleotide Excision Repair	Gordon Research Conference on Mammalian DNA Repair, Ventura, CA
January 2015	Telomeres, oxidative damage and neurodegeneration	Pittsburgh Institute for Neurological Disorders, Department of Neurology, University of Pittsburgh.
December 2014	Isolating Telomeres for Detection of DNA Damage and Repair	CNAST, Carnegie Mellon University
November 2014	Ultraviolet light induced DNA damage and repair at telomeres	UPCI Skin Cancer SPORE, work in progress seminar
November 2014	Relationship of Telomeres with Cancer and Aging	Brain, Behavior, and Cancer seminar series. The Behavioral Medicine in Oncology Program. University of Pittsburgh Cancer Institute.
September 2014	Damage and Repair at Telomeres	EMGS Annual Meeting, Orlando, FL.
June 2014	DNA Damage and Repair at Telomeres and Aging	UPCI Aging and Cancer Satellite Conference. Greensburg, PA.
March 2014	Defending Telomere Against Bulky DNA Lesions	Gordon Research Conference on DNA damage, mutation and cancer. Ventura, CA. Invited by Phillip Hannawalt.
December 2013	Consequences of Telomere Damage	Mitochondria, Aging, and Metabolism monthly seminar series, University of Pittsburgh. Invited by Fabrisia Ambrosio
December 2013	Protection against Cr(VI)-induced genomic instability	9th Annual mini symposium on metals in biology, Duquesne University, Pittsburgh, PA. Invited by Partha Basu.
November 2013	Roles for Translesion DNA Synthesis in Telomere Preservation	11th International Conference on Environmental Mutagens. Foz do Iguassu, Brazil. Invited by Roger Woodgate.
October 2013	Mechanisms of Telomeric DNA Loss and Repair	Fundamental Aspects of DNA Repair Symposium, Sao Paolo, Brazil. Invited by Carols Menck

Date	Title of Presentation	Venue
October 2013	Challenges in Replicating Telomeric DNA: Implications for Cancer and Aging	Department of Cell Biology, Albert Einstein College of Medicine, NY. Invited by Carl Schildkraut.
October 2013	Mechanisms of Telomere Loss and Preservation: Implications for Aging and Cancer	Basic and Translational Research Seminar Series, University of Pittsburgh Cancer Institute. Invited by Christopher Bakkenist
May 2013	DNA Polymerase Delta Stalls on Lagging Strand Templates Independently from G-quadruplex Formation	Selected from abstract. Telomere and Telomerase, Cold Spring Harbor Laboratory Meetings, CSH, NY
March 2013	UV Defense Mechanisms At Telomeres	Molecular and Cellular Cancer Biology Program Retreat, UPCI, Pittsburgh, PA. Invited by Chris Bakkenist
March 2013	Investigating Novel Structural Barriers to Telomeric DNA Synthesis	National Institute on Aging, Baltimore, MD. Invited by Vilhelm Bohr
November 2012	Challenges in Telomeric DNA Replication	Vanderbilt University, Nashville, TN. Invited by David Cortez
July 2012	Mechanisms of Telomeric DNA Loss and Repair	ONES Awardee Symposium. July 10-11. NIEHS, NC.
March 2012	Mechanisms of Telomeric DNA Loss and Repair	2012 Gordon Conference on DNA damage, Mutation and Cancer. Invited by organizers. Ventura, CA
October 2011	Unraveling clues for maintaining youthful chromosomes	Science 2011, University of Pittsburgh
September 2011	PNAs reveal mechanisms of telomere loss associated with aging and cancer	Center for Nucleic Acids Science and Technology Retreat and Symposium on Telomeres and Telomerase, Carnegie Mellon University.
August 2011	The Impact of UV-induced DNA Damage on Telomere Integrity	UPCI Skin Cancer SPORE, work in progress seminar

Date	Title of Presentation	Venue
August 2011	Aging and genomic instability, loss of telomeric DNA	Invitation to present at the 2011 Gordon Conference on Cellular and Molecular Mechanisms of Toxicity, Proctor Academy, NH. Invited by Dr. Ruth Roberts. Unable to attend due to conflict with FASEB meeting.
August 2011	Roles for WRN helicase in telomeric DNA replication	Invitation to present and chair a session at the 2011 FASEB meeting on Helicases and NTP-Driven Nucleic Acid Motors Invited by Drs. James Keck and Eckhard Jankowsky
May 2011	Roles for Telomeres in Aging and Cancer	Invitation to present at the "Aging and Cancer – major medical challenges" in Copenhagen, Denmark. Invited by Drs. Lene Rasmussen and Tinna Stevnsner – unable to attend due to pregnancy
March 2011	WRN RecQ helicase suppresses mutagenesis in vectors with telomeric DNA	Ohio State University, Graduate student invitation by April Gocha and by Dr. Joanna Groden – postponed due to pregnancy
January 2011	Base Excision Repair in Telomeric DNA	International Workshop on BER, Brain Function and Aging, Hyderabad, India Invited by Dr. Bruce Demple – unable to participate due to pregnancy
August 2010	Molecular Mechanisms of Telomeric DNA Instability Associated with the Human Progeroid Werner Syndrome	2010 Biology of Aging Colloquium, Ellison Medical Foundation, Woods Hole, MA.
July 2010	Roles for WRN protein in protection against Cr(VI) induced telomere instability	National Institute on Aging, Baltimore, MD Invited by Vilhelm Bohr
March 2010	The environmental carcinogen Cr(VI) induces telomere damage associated with defective DNA replication	Gordon Research Conference, DNA Damage, Mutations and Cancer, Ventura, CA

Date	Title of Presentation	Venue
February 2010	Mechanisms of telomere instability, loss and repair	DNA Repair and DNA Tumor Viruses Mini-symposium UPCI Molecular and Cellular Cancer Biology Program and Cancer Virology Program, Pittsburgh, PA
January 2010	Links between Telomere Instability, Environmental Genotoxins, and Human Disease	University of Pittsburgh, Department of Environmental and Occupational Health Seminar, Pittsburgh, PA
November 2009	Links between Telomere Instability, Genotoxins, and Human Disease	NIEHS, Extramural Research Program, RTP, NC.
September 2009	Roles for the Werner Syndrome Protein in Genome Preservation and Protection Against Aging and Cancer	University of Southern Maine. Portland, ME. Invited by Dr. John Wise, Sr.
August 2009	Environmental Causes of Telomere Defects	10th International Conference on Environmental Mutagens. Florence, Italy.
July 2009	Roles for Chromosome Ends in Protection Against Aging and Cancer	University of Pittsburgh, EOH STEER summer student program
June 2009	Links Between Telomere Dysfunction, Premature Aging, and Cancer	21st Annual UPCI Scientific Retreat, Greensburg, PA
May 2009	Mechanisms for Preserving Chromosomal Ends in Protection Against Premature Aging and Cancer	Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland Invited by Dr. Barbara Tudek
April 2009	RPA and POT1 Differentially Modulate WRN Processing of Mobile Telomeric D-loops	Telomere and Telomerase, Cold Spring Harbor Laboratory Meetings, CSH, NY
March 2009	Challenges in Telomeric DNA Replication and Repair	NIEHS, RTP, NC Invited by Dr. Thomas Kunkel
March 2009	Mechanisms of Telomeric DNA Loss and Repair	48th Annual Meeting of the Society of Toxicology, Baltimore, MD

Date	Title of Presentation	Venue
February 2009	Werner Syndrome protein processing of recombination repair intermediates at telomeric vs. non-telomeric regions	3rd US/EU Conference on Repair of Endogenous Genome Damage, Galveston, TX
January 2009	Modulation of Telomeric DNA Structure and Function	University of Pittsburgh Molecular Biophysics and Structural Biology graduate program: Faculty presentations
November 2008	Telomeric DNA Replication and Repair	University of Rochester. Invited by Robert Bambara
October 2008	The Werner Syndrome protein in telomere preservation and repair	39th Annual Meeting of the Environmental Mutagen Society, PR.
May 2008	RecQ Helicase Functions at Telomeres	Molecular and Clinical Mechanisms in Bloom's Syndrome and Related Disorders University of Chicago, IL
April 2008	Roles for RecQ helicases in telomere preservation	DNA Repair Interest Group Videoconference University of Pittsburgh, PA Invited by Ken Kraemer and Vilhelm Bohr
December 2007	Mechanism and Substrate Specificity of POT1 Stimulation of Werner Syndrome Helicase	AACR special conference in cancer research: The Role of Telomere and Telomerase in Cancer Research. San Francisco, CA
December 2007	Links between Telomeres, Human Disease and Aging	Division of Pulmonary, Allergy, and Critical Care Medicine University of Pittsburgh School of Medicine. Invited by Dr. Bruce Pitt
November 2007	Faculty research presentation	Graduate School of Public Health, University of Pittsburgh Board of Visitors Meeting
November 2007	Links between Genomic Instability and Aging	Dean's Junior Faculty Seminar Series, GSPH, University of Pittsburgh, PA. Invited by Dr. Don Burke
November 2007	Molecular mechanisms of telomere instability associated with aging	Gastroenterology Research Seminar Series, UPMC Invited by Dr. Robert Schoen

Date	Title of Presentation	Venue
October 2007	Mechanisms of telomere preservation: links between DNA helicases, premature aging, and cancer	Emory University School of Medicine, Department of Pathology Research Seminar, Atlanta, GA Invited by Dr. Jihn Ly
October 2007	Telomeric protein POT1 regulated processing of telomeric ends by the Werner syndrome helicase/exonuclease.	38th Annual Meeting of the Environmental Mutagen Society, Atlanta, GA. **Oral** presentation.
October 2007	Role of Preserving Chromosome Ends in Protection Against Aging and Cancer	Science 2007 University of Pittsburgh, Pittsburgh, PA
May 2007	Roles for the Werner Syndrome Protein in Telomere Preservation	3rd Japan-US DNA Repair Meeting, Akiu, Sendai, Japan. Invited by Akira Yasui.
February 2007	Mechanisms of telomere preservation: links between DNA helicases, premature aging and cancer	BC Cancer Research Center, Vacouver, Canada. Invited by Peter Lansdorp.
January 2007	Processing of Telomere Ends by the Werner Syndrome Protein and Telomeric POT1 Protein	Keystone Symposia on Genomic Instability and DNA Repair, Breckenridge, CO.
October 2006	Roles for the Werner syndrome protein in oncogenic proliferation	NIA, NIH, Baltimore, MD. Invited by Vilhelm Bohr.
October 2006	Molecular mechanisms of telomeric DNA instability associated with premature aging	Senior Vice Chancellor's Research Seminar Series, University of Pittsburgh
October 2006	Mechanisms of Telomeric DNA Loss and Repair	National Institute on Environmental Science, NIH, meeting for ONES awardees.
September 2006	Mechanisms of telomere preservation: links between DNA helicases and premature aging	University of Pittsburgh, Molecular Biophysics Seminar Series

Date	Title of Presentation	Venue
August 2006	Cooperation of the Werner syndrome protein and POT1 in dissociating telomeric DNA substrates	Telomere and Genome Stability 2006, International Conference, Villar-sur-Ollon, Switzerland
May 2006	Mechanisms of Telomeric DNA Loss and Repair	National Institute of Environmental Health Sciences, NIH, presentation of research proposal
May 2006	Roles for the Werner Syndrome Protein in Telomere Maintenance	Pittsburgh Chromatin Club, mini-symposium, Pittsburgh, PA
May 2006	Cooperation of RecQ Helicases and Telomeric Proteins in Dissociating Telomeric Substrates	International Workshop on RecQ Helicases and Other Helicases in Telomere Maintenance and Related Pathways, Lansdowne, VA *co-organizer
January 2006	Werner Syndrome Protein Functions at Telomeres	University of Pittsburgh, Human Genetics Seminar series
October 2005	Mechanisms of Telomere Instability Associated with Premature Aging	University of Pittsburgh Cancer Institute, Basic Research Seminar Series
June 2005	RecQ Helicases and Telomeric DNA Instability	University of Pittsburgh, Department of Molecular Genetics and Biochemistry
March 2005	RecQ Helicases and DNA Repair Pathways at Telomeric DNA	Keystone Symposia on Genome Instability and Repair, Taos, New Mexico
August 2004 June 2004	Links Between Premature Aging and Telomeres	1. University of Pittsburgh Cancer Institute, Pittsburgh, PA; 2. University of Pittsburgh, Department of Environmental and Occupational Health Seminar, Pittsburgh, PA
March 2004 December 2003	Investigating Roles for the Werner Syndrome Protein in Telomere Metabolism	1. University of Maryland Biotechnology Institute, Baltimore, MD; 2. Yale University School of Medicine, Department of Therapeutic Radiology and Genetic, New Haven, CT

Date	Title of Presentation	Venue
October 2003	Roles for the Werner Syndrome Protein in Telomere Maintenance and Repair	US- EU DNA Repair Workshop: Endogenous Stress, Lansdowne, VA
May 2003	Investigating Roles for the Werner Syndrome Protein in Telomere Metabolism	International Workshop on Werner Syndrome, Lansdowne, VA
February 2003	Potential Role for the Werner Syndrome Protein in Telomere Metabolism	University of Aarhus, Department of Chemistry, Aarhus, Denmark
February 2002 February 2002 January 2002	Potential Roles for the Werner and Bloom Syndrome Proteins in Telomere Maintenance	1. Medical Research Council, Radiation and Genome Stability Unit, Harwell, Oxfordshire, UK; 2. Oxford University, Institute of Mol Med,Oxford, UK; 3. Pennsylvania State College of Medicine, Biochemistry Department, Hershey, PA

Other Research and Training Activities

Date	Position	Description of Activity
February 2021	Organizer	Western Pennsylvania (WPA) Environmental Risk Factors for Lung Cancer Mini-Workshop on Mutational Signatures of Exposure. HCC, virtual.
December 2020	Attendee	Annual Diversity in Faculty Recruitment Workshop, University of Pittsburgh
January 2019	Invited Panelist	Cancer and the Environment Symposium:Priorities for Research, Policy and Clinical Practice. Phipps Conservatory, Pittsburgh, PA.
January 2019	Attendee	UPMC Hillman Cancer Center: Aging and Cancer Workshop. HCC, Pittsburgh, PA.
September 2017	Invited Panelist	NIEHS Workshop “Telomere as readout for environmental exposures”. NIEHS, RTP, NC.

Date	Position	Description of Activity
May 2017	Invited Panelist	Breakout session on "Managing a research career with a family – work/life balance." Conference on Nucleotide Excision Repair and Interstrand Cross-link Repair. Smolenice, Slovakia.
February 2017	Invited Panelist	2017 Mammalian DNA Repair Gordon Research Seminar. Career Session.
December 2016	Attendee	NIEHS Environmental Health Science FEST. Durham, NC.
October 2016	Session Moderator	Science 2016: Game Changer, Spotlight Session 15: Development and Aging. University of Pittsburgh.
October 2014	Session Moderator	Science 2014: Sustain It! Spotlight Session "On Again/Off Again Through Epigenetics. University of Pittsburgh.
March 2011	Attendee	Cancer Genomics and the Impact of Next Generation Sequencing Symposium. UPCI 25th anniversary symposia series. Pittsburgh, PA
August 2009	Invited attendee	2009 Biology of Aging Colloquium, Ellison Medical Foundation, Woods Hole, MA.
October 2008	Attendee	Aging and Cancer: Two sides of the same coin. An American Federation for Aging Research Conference. NYC, NY.
August 2008	Invited attendee	2008 Biology of Aging Colloquium, Ellison Medical Foundation, Woods Hole, MA
March 2008	Organizer/ participant	NIEHS ONES advisory committee meeting to monitor and mentor progress
Jan 2008	Attendee	GTCbio New Applications in Aging Research Conference, San Diego, CA
August 2007	Invited attendee	2007 Biology of Aging Colloquium, Ellison Medical Foundation, Woods Hole, MA
June 2007	Participant	One week course on Quantitative Fluorescence Microscopy, CBI University of Pittsburgh, MDIBL, Salisbury Cove, Maine
February 2007	Trainee	Two weeks of training on telomere length measurement assays in Dr. Peter Lansdorp's laboratory, BC Cancer Research Center, Vancouver, Canada

Date	Position	Description of Activity
September 2006	Attendee	4th Conference on Molecular Mechanisms of Metal Toxicity and Carcinogenesis, Morgantown, WV
August 2006	Invited attendee	2006 Biology of Aging Colloquium, Ellison Medical Foundation, Woods Hole, MA
Spring 2006	Nominated and selected to participate	2.5 day course on Scientific Management Leadership. University of Pittsburgh
Fall 2003	Participant	Grantspersonship, Survival Skills and Ethics Workshop
July 1999	Participant	Pathobiology of Cancer, American Association for Cancer Research Workshop

PUBLICATIONS

Refereed Articles

1. Zhu, R-Y, Majumadar, C., Khuu, C., De Rosa, M., **Opresko, P.L.**, David, S.S., and Kool, E.T. Designer Fluorescent Adenine Enable Real-Time Monitoring of MUTYH Activity, *ACS Central Science,* 2020 Oct 28;6(10):1735-42. Epub 2020 Aug 31. PMID: 33145410, PMCID: PMC7596860.
2. Lee, H.-T., Sanford, S., Paul, T., Choe, J., Bose, A., **Opresko, P.L.**, Myong, S. Position-dependent effect of oxidative damage on telomere conformation and telomerase extension. *Biochemistry,* 2020, Jul 21;59(28):2627-2639. Epub 2020 Jun 29. PMID: 32578995.
3. Schaich, M.A., Sanford, S., Welfer, G., Johnson, S.A., Khoang, T.H., **Opresko, P.L**., Freudenthal, B.D. Mechanisms of nucleotide discrimination by telomerase. *eLife,* 2020. June 5;9:e55438. PMID: 32501800, PMCID: PMC7274783.
4. Sanford, S., Welfer, G., Freudenthal, B., and **Opresko, P.L**. Mechanisms of telomerase inhibition by oxidized and therapeutic dNTPs. *Nature Communications,* 2020 Oct 20; 11(1):5288. PMID: 33082336, PMCID: PMC7576608.
5. Xie, W., Jiao, B., Bai, Q., Ilin, V.A., Sun, M., Burton, C.E., Kolodieznyi, D., Stolz, D.B., **Opresko, P.L.**, St. Croix, C.M., Watkins, S.C., Van Houten, B., Bruchez, M.P., and Burton, E.A. Chemoptognetic ablation of neuronal mitochondria in vivo with spatiotemporal precision and controllable severity. *eLife*, 2020. Mar 17;9:e51845. PMID: 32180546; PMCID: PMC7077989.
6. Qian, W., Kumar, N., Roginskaya, V., Fouquerel, E., **Opresko, P.L**., Shiva, S., Watkins, S.C., Kolodieznyi, D., Bruchez, M.P., and Van Houten, B. Chemoptogenetic damage to mitochondria causes rapid telomere dysfunction. *PNAS*, 2019. Sep 10; 116(37):18435-18444. PMID: 31451640; PMCID: PMC6744920.

7. Jang, S., Kumar, N., Beckwitt, E.C., Kong, M., Fouquerel, E., Rapic-Otrin, V., Prasad, R., Watkins, S., Khuu, C., Majumdar, C., David, S.S., Wilson, S.H., **Opresko, P.L.**, and Van Houten, B. Damage sensor role of UV-DDB during base excision repair. *Nat Mol Struc Biol*, 2019 Aug;26(8):695-703. doi: 10.1038/s41594-019-0261-7. Epub 2019 Jul 22. PMID: 31332353; PMCID: PMC6684372.

8. Fouquerel, E., Barnes, R.P., Uttam, S., Watkins, S.C., Bruchez, M.P., and **Opresko, P.L**. Targeted and persistent 8-oxoguanine base damage at telomeres promotes telomere loss and crisis. *Molecular Cell,* 2019 Jul 11;75(1):117-130.e6. Epub 2019 May 14. PMID: 31101499; PMCID: PMC6625854.
   - Featured in SciShow youtu.be/9gxogiUvVkk
   - The Scientist Magazine Image of the Day- https://www.the-scientist.com/image-of-the-day/image-of-the-day-sticky-telomeres-65878
   - Selected for F1000Prime, https://f1000.com/prime/735786589?bd=1

9. Luu, H.N., Qi, M., Wang, R., Adams-Haduch, J., Miljkovic, I., **Opresko, P. L.,** Jin, A., Koh, WP, Yuan, J.M. Association Between Leukocyte Telomere Length and Colorectal Cancer Risk in the Singapore Chinese Health Study. *Clinical and translational gastroenterology*, 2019. May 22; 10 (5): 1-9. PMID:31117113; PMC: PMC6602767.

10. Robinson, A.R., Yousefzadeh, M.J., Rozgaja, T.A., Wang, J., Li, X. , Tilstra, J.S., Feldman, C.H., Gregg S.Q., Johnson, C.H., Skoda, E.M., Frantz, M.-C., Bell-Temin, H., Pope-Varsalona, H., Gurkar, A.U., Nasto, L.A., Robinson, R.A.S., Fuhrmann-Stroissnigg, H., Czerwinska, J., McGowan, S.J., Cantu-Medellin, N., Harris, J.B., Maniar, S., Ross, M.A., Trussoni, C.E., F. LaRusso, N.F., Cifuentes-Pagano, E., Pagano, P.J., Tudek, B., Vo, N.V., Rigatti, L.H., **Opresko, P.L.**, Stolz, D.B., Watkins, S.C., Burd, C.E., St. Croix, C.M., Siuzdak, G., Yates, N.A., Robbins, P.D., Wang, Y., Wipf, P., Kelley, E.E. and Niedernhofer, L.J. Spontaneous DNA damage to the nuclear genome promotes senescence, redox imbalance and aging. *Redox Biology*, 2018. 17: 259-273. PMID: 29747066; PMCID: PMC6006678

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12. Orenstein, A., Berlyoung, A.S., Rastede, E.E., Pham, H.H., Fouquerel, E., Murphy, C.T., Leibowitz, B.J., Yu, J., Srivastava, T., Armitage, B.A., and **Opresko, P.L**. γPNA FRET Pair Miniprobes for Quantitative Fluorescent In Situ Hybridization to Telomeric DNA in Cells and Tissue. *Molecules*, 2017. 22(12). Pil: E2117. PMID: 29207465.

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15. Lee, H.-T., Bose, A., Lee, C.-Y., **Opresko, P.L**, and Myong, S. Molecular mechanisms by which oxidative DNA damage promotes telomerase activity. *Nucleic Acids Research*, 2017. 45: 11752-11765. PMID: 28981887.
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    - News and Views "The origin of oxidized guanine resolves the puzzle of oxidation-induced telomere-length alteration". Jaya Sarkar and Yie Liu. NSMB, 2016. 23: 1070-1071.
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Books and Book Chapters

1. Barnes, R.P., Thosar, S.A., Fouquerel, E., **Opresko, P.L.** *Targeted Formation of 8-oxoguanine in Telomeres*. DNA damage signaling and repair. Methods in Molecular Biology. Editor Nima Mosammaparast, in revision.
2. Fouquerel, E., and **Opresko, P.L.** *Analysis of telomere length and aberrations by quantitative FISH*. Molecular Toxicology Protocols. Methods in Molecular Biology. Third edition. Editors Phouthone Keohavong, Kamaleshwar Singh, and Weimin Gao. Springer publishers. 2020; 2102: 237-249. PMID: 31989559.
3. Fouquerel, E., Barnes, R.P, Wang, H., and **Opresko, P.L.** *Measuring UV Photoproduct Repair in Isolated Telomeres and Bulk Genomic DNA*. DNA Repair: Methods and Protocols. Methods in Molecular Biology. Editors Lata Balakrishnan and Jason Stewart. Springer publishers. 2019; 1999: 295-306. PMID: 31127586; PMCID: PMC6886745.
4. Brosh, RM, Jr., **Opresko, P.L**., and Bohr, V.A. Enzymatic Mechanism of the WRN Helicase/Nuclease. *Methods in Enzymology*. San Diego, CA: Academic Press. 2006. 409: 52-85. PMID:16793395.
5. **Opresko, P.L.**, Harrigan, J.A., Cheng, W.H., Brosh, R.M., and Bohr, V.A. Proposed biological functions for the Werner syndrome protein in DNA metabolism. *Molecular Mechanisms of Werner's Syndrome*, Georgetown, TX: Landes Bioscience, 2004. Chapter 8, 10 pgs.
6. Cheng, W.-H., **Opresko, P.L.**, von Kobbe, C., Harrigan, J.A. and Bohr, V.A. The human Werner syndrome as a model for aging. *In Topics in Current Genetics.* Berlin: Springer. 2003. 239-268.
7. Bohr, V.A, and **Opresko, P.L**. Genomic instability in human premature aging. *Aging at the Molecular Level*. Netherlands: Kluwer Academic Publishers. 2003. 65-77.

Review Articles

1. Sanford, S.L., Welfer, G.A., Freudenthal, B.D., **Opresko, P.L**. How DNA damage and non-canonical nucleotides alter the telomerase catalytic cycle. *DNA Repair Special Issue*, submitted.
2. Barnes, R.P., Fouquerel, E., **Opresko, P.L**. The impact of oxidative DNA damage and stress on telomere homeostasis. *Mechanisms of Ageing and Development*. 2019, 177: 37-45. PMID: 29604323. PMCID:PMC6162185.
3. Fouquerel, E., **Opresko, P**. Convergence of the Nobel fields of telomere biology and DNA Repair. *Photochemistry and Photobiology*. 2017. 93: 229-237. PMID: 27861975. PMCID: PMC5315637.
4. Fouquerel, E., Parikh, D., **Opresko, P**. DNA damage processing at telomeres: The ends justify the means. *DNA Repair special issue*. 2016. 44:159-68. PMID: 2723313.
5. **Opresko, P.L***, Shay, J.W*. Telomere-Associated Aging Disorders. *Ageing Research Reviews*. 2017. 33: 52-66. PMID: 27215853. *Co-corresponding authors.
6. Croteau, D.L., Popuri, V., **Opresko, P.L.**, Bohr, V.A. Human RecQ Helicases in DNA Repair, Recombination and Replication. *Annu Rev Biochem*. 2014. 83: 519-52. PMID: 24606147.

7. Lin, J., Kaur, P., Countryman, P., **Opresko, P.L**., Wang, H. Unraveling secrets of telomeres: One molecule at a time. *DNA Repair*. 2014. 20: 142-53. PMID: 24569170.
8. **Opresko, P.L**. Telomere ResQue and Preservation. Roles for the Werner Syndrome protein and other RecQ helicases**.** *Mechanisms of Aging and Development*, Special Issue on Telomeres. 2008. 129: 79-90. PMID: 18054793.
9. Lee, J.W., Harrigan, J.A., **Opresko, P.L.**, and Bohr, V.A. Pathways and functions of the Werner syndrome protein. *Mechanisms of Aging and Development.* 2005. 126: 79-86.
10. **Opresko, P.L.**, Cheng, W.H., and Bohr, V.A. At the junction of RecQ helicase biochemistry and human disease. *Journal Biological Chemistry.* 2004. 279: 18099-18102.
11. **Opresko, P.L**., Cheng, W.H., von Kobbe, C., Harrigan, J.A., and Bohr, V.A. Werner syndrome and the function of the Werner protein; what they can teach us about the molecular aging process. *Carcinogenesis.* 2003. 24: 791-802.
12. Bohr, V.A., Brosh, R.M., von Kobbe, C., **Opresko, P.L**., and Karmakar, P. Pathways defective in the human premature aging disease Werner syndrome. *Biogerontology*. 2002. 3: 89-94.

SERVICE

Service to School and University

Years	Committee	Position
UPMC Hillman Cancer Center		
2019-present	Junior faculty mentoring committee for Jacob Stewart Ornstein	Member
2018-present	Strategic Vision Team 1: Environmental Risk Factor Role in W PA Cancer	Co-Chair
2018-present	UPMC Hillman Cancer Center Genome Stability Program	Co-leader
2018-present	Women's Task Force, UPMC Hillman Cancer Center	Member
2018-present	Excellence in Education and Training Committee, UPMC Hillman Cancer Center	Member
2018-present	Cancer Genomics Facility Advisory Committee, UPMC Hillman Cancer Center	Member
2020-21	Faculty Search Committee, UPMC Hillman Cancer Center, GS program, Structural Biologist	Co-Chair
2014	Melanoma Program Faculty Search Committee, UPMC Hillman Cancer Center	Member
2010, 13, 18	Faculty Search Committee, UPMC Hillman Cancer Center, MCCB program	Member

Years	Committee	Position
2009, 2015-19	Judging committee for poster award at the University of Pittsburgh Cancer Institute Annual Retreat	Member
2006-2018	UPMC Hillman Cancer Center Molecular and Cellular Cancer Biology Program	Member
University of Pittsburgh Graduate School of Public Health (GSPH)		
2019-2020	Search Committee for tenure stream position in the Department of Epidemiology	Member
2017-2018	Search Committee for tenure stream position in the Department of Epidemiology	Member
2017-present	Faculty Appointment, Promotion, and Tenure Committee. GSPH	Member
2015-present	GSPH Educational Policies and Curriculum Committee	Alternate
2008-2014	GSPH Educational Policies and Curriculum Committee	Member
2008	GSPH Academic Integrity Committee	Member
2006, 13, 15, 17-18	GSPH Dean's Day Student Research Competition: Delta Omega Poster and Rosenkranz Awards	Judge
University of Pittsburgh Department of Environmental and Occupational Health (EOH)		
2020-2021	Search Committee for tenure stream position in Department of Environmental and Occupational Health – Environmental Epidemiologist	Member
2020-present	EOH Research Excellence Committee	Member
2016-2017	Search Committee for Chair of EOH	Member
2008-2014	EOH summer undergraduate internship program, committee to select interns	Member
2008-2013	Department of EOH STEER high school student summer internship. Committee to select interns	Member
2006-present	EOH Graduate Advisory Committee	Member
2006-2019	EOH Curriculum Committee	Member
University of Pittsburgh School of Medicine		
2006-present	Medical Scientist Training Program (MSTP) at the University of Pittsburgh and Carnegie Mellon University (MD/PhD program)	Member
2016-present	MSTP selection and admissions committee	Member
2014-present	School of Medicine Interdisciplinary Biomedical Graduate Program in Molecular Genetics and Developmental Biology	Member

Years	Committee	Position
2006-present	Graduate Program in Molecular Biophysics and Structural Biology (MBSB) at the University of Pittsburgh and Carnegie Mellon University	Member
2009-present	MBSB Graduate Program Oversight and Evaluation Committee	Member
2009	Interview applicants for the MBSB Graduate Program	Interviewer
University of Pittsburgh Activities		
May 2020	Radiation Safety Committee	Member
April 2015	Women in Medicine and Science Forum	Mentor
February 2010	Workshop "Advancing to an Academic Position: Being Prepared for the Job Market"	Invited Panelist
May 2009	2009 UPPDA Postdoctoral Data & Dine Symposium	Participant
April 2008	2008 Course in Scientific Management and Leadership University of Pittsburgh Session: "Challenges and Barriers to Academic Career Success: What are They and How to Overcome Them"	Invited Panelist
Carnegie Mellon University		
2014-present	Executive Board, The Center for Nucleic Acids Science and Technology, Carnegie Mellon University	Member
2010-present	Center For Nucleic Acids Science And Technology, (CNAST) Carnegie Mellon University	Invited member
Community Activities		
April 30, 2019	AACR/AACI Hill Day, meet with lawmakers	Participant
July 2013	Interviewed for the Pittsburgh Post Gazette for comment in the article "Biologist says he's on track to reversing aging process". – David Templeton	Interviewee
July 2011	Interviewed by WTAE local news regarding new telomere length tests as a longevity biomarker in humans	Interviewee
November 2008	Interviewed for the Pittsburgh Post Gazette "The Thinkers" column. Nov 3 issue "Researcher Seeks Clues to Aging in Our DNA" – Mark Roth	Interviewee

Service to Field of Scholarship
Editorial Boards, Editorships

Date	Position	Organization
May 2019, April 2020 Sept 2020	Guest Editor	PNAS
2019-present	Editorial board member	DNA Repair Journal
2006-present	Editorial board member	Mechanisms of Aging and Development
2014-present	Associate Editor	Mechanisms of Aging and Development
2011-present	Review editorial board member	Frontiers in Genetics of Aging

Manuscript and Other Document/Publication Review

Dates	Journal Title
2000-2004	Journal of Biological Chemistry, Molecular Biology of the Cell, Cancer Research, Human Genetics Chemico-Biological Interactions, Archives of Biochemistry and Biophysics
2005-2006	FEBS Letters, Proceedings of the National Academy of Science, Oncogene
2006-2007	DNA Repair, Central European Journal of Physics, Mechanisms of Ageing and Development, Oncogene, Cancer Research
2007-2008	Mechanisms of Aging and Development, EMBO J, BMC Medicine, Oncogene, Neurobiology of Aging, Molecular Cancer Therapeutics
2008-2009	Biochimica and Biophysica acta, Cancer Research, EMBO J, IJCEM, Mechanisms of Aging and Development, Nucleic Acids Research, Journal of Molecular Biology, Journal Cell Science Molecular Microbiology,
2009-2010	Cancer Research, Carcinogenesis, EMBO J, PLoS Genetics, Toxicological Sciences, Nucleic Acids Research, Journal of Biological Chemistry, PNAS, DNA Repair, Environmental and Molecular Mutagenesis, Journal of Cell Science, Mechanisms of Aging and Development
2010-2011	Biochemistry, Mechanisms of Aging and Development, EMBO J, Nucleic Acids Research, PLoS Genetics, DNA Repair
2011-2012	DNA Repair, Nucleic Acids Research, Environmental and Molecular Mutagenesis, PLoS Genetics, Molecular Cancer, Biochemistry, Carcinogenesis, Frontiers in Life Science, Journal of Biological Chemistry, Mutation Research

Dates	Journal Title
2012-2013	PLoS ONE, PLoS Genetics, Carcinogenesis, Molecular Genetics and Genomic Medicine, Frontiers in Genetics of Aging, Nucleic Acids Research, Frontiers in Life Science, Aging Cell, Journal of Biochemical and Molecular Toxicology, DNA Repair
2013-2014	Nucleic Acids Research, Toxicological Sciences, Journal of Biological Chemistry, Aging Cell, Carcinogenesis, Cell Reports, International Journal of Epidemiology, Genetics, PLoS ONE
2014-2015	Mechanisms of Aging and Development, Nucleic Acids Research,
2015-2016	Mechanisms of Aging and Development, Nucleic Acids Research, Cell Reports, Nature Communications, PLoS ONE, Ageing Research Reviews, Toxicological Sciences.
2016-2017	Mechanisms of Aging and Development, Nature Structural and Molecular Biology, Free Radical Biology and Medicine, DNA Repair, Nucleic Acids Research, Scientific Reports, PLoS ONE, FEBS letters, Molecular and Cellular Biology.
2017-2018	Mechanisms of Aging and Development, Nucleic Acids Research, Aging Cell, DNA Repair, Chem Tox Reviews, EMBO Reports, Human Molecular Genetics, Nat Struc Mol Biol, Tox Sci, Aging Reviews
2018-2019	Aging Cell, Cemical Science, EMM, Nucleic Acids Research, PNAS, Mechanisms of Aging and Development, Mutation Research, Journal of Biological Chemistry
2019-2020	Aging, Reviews, Cell Cycle, Cell Reports, DNA Repair, FASEB J, Free Radical Biology and Medicine, Nature, Nucleic Acids Research, PNAS, Redox Biology, Scientific Reports
2020-2021	Nucleic Acids Research, PNAS, Redox Biology, Aging Cell, NAR Cancer, Cell Reports, DNA Repair, Developmental Cell, Gene and Development

Study Sections, Review Panels, and Advisory Boards

Date	Position	Organization and Nature of Activity
6/14/21	Ad Hoc Reviewer	NIH Cancer Etiology Study Section
11/13/19	Reviewer	FY19 Aging Institute & Hillman Cancer Center Seed Grant Pilot
05/15/19	Ad Hoc Reviewer	Special Emphasis Panel/Scientific Review Group ZES1 LWJ-D(U2) for U01 and U24 NIHES/NIA Telomere Resaerch Network
12/21/18	Ad Hoc Reviewer	Swiss National Science Foundation – Project funding in biology and medicine (division III)
12/12/18	Reviewer	UPMC Hillman Developmental Funding Program

Date	Position	Organization and Nature of Activity
03/02/18	Ad Hoc Reviewer	ZCA1 TCRB-T (M2), study section for NCI P01 proposals
09/01/17-present	Member	Environmental Health Sciences Review Committee (EHSCR) at NIEHS
09/25/17	Ad Hoc Reviewer	NIH, Special emphasis panel 2018/-1 ZCA1 SRB-P (J1) S, study section for R21 and R03s.
06/15/17	Ad Hoc Reviewer	NIH, MGB study section for R series applications
04/27/17 04/27/18	Reviewer	CMRF Competitive Medical Research Fund, University of Pittsburgh Office of Research, Health Sciences
03/14/17	Reviewer	FY2017 UPMC Aging Institute Pilot Funding Program
06/09/16	Ad Hoc Reviewer	NIH, MGB study section for R series applications
04/17/16	Reviewer	Swiss Cancer League, review grant application
04/01/16	Reviewer	FY2016 Stimulating Pittsburgh Research in Geroscience Post-Doctoral Scholar program
03/07/16	Ad Hoc Reviewer	NCI, NIH, Special Emphasis Panel for R03 and R21 applications, ZCA1 SRB-L
02/26/16	Reviewer	FY2016 Aging Institute/University of Pittsburgh Center for Behavioral Health and Smart Technology Seed Grant Program
11/05/15	Ad Hoc Reviewer	Study Section, NIEHS, Environmental Health Sciences Review Committee, P30 Center proposals
06/09/15	Ad Hoc Reviewer	NCI, NIH, Special Emphasis Panel for R03 and R21 applications, ZCA1 SRB-L
07/01/15	Ad Hoc Reviewer	NIH, Members Conflict Oncology-Basic Translational Special Emphasis Panel for R01 applications, ZRG1 OBT-B
04/24/15 04/27/17	Reviewer	Competitive Medical Research Fund, University of Pittsburgh
02/19/15	Reviewer	National Science Foundation, Chemistry of Life Processes Nucleic Acids I Panel
04/22/14	Reviewer	University of Pittsburgh: The Vascular Medicine Institute (VMI) and the Clinical and Translational Science Institute (CTSI) Pilot Project Program in Hemostasis and Vascular Biology
03/20/14	Reviewer	UPMC Aging Institute Pilot Grant program

Date	Position	Organization and Nature of Activity
02/09/14	Ad Hoc Reviewer	National Science Foundation Research Proposal - Genetic Mechanisms section
09/01/13	Ad Hoc Reviewer	National Science Foundation CAREER awards
05/22/13	Reviewer	University of Pittsburgh CDRF research proposal
10/02/12	Reviewer	Women's Cancer Research Center and the Clinical and Translational Science Institute Pilot Project Program. University of Pittsburgh
05/30/12	External Reviewer	Fondazione Telethon – Foundation funds research towards a cure for muscular dystrophies and genetic diseases
03/23/12	Reviewer	CTSI(Clinical and Translational Science Institute) - PEIR program
02/21/12	External Reviewer	Sharing Partnership for Innovative Research in Translation (SPIRiT) Pilot proposals; for the University of Pittsburgh Clinical and Translational Science Institute.
02/10/12	External Reviewer	Johns Hopkins University of Claude D. Pepper Older Americans Independence Center. Pilot/Exploratory Studies Core proposal
01/13/12	External Reviewer	Diabetes UK charity, RD Lawrence Fellowship program
05/2011	Reviewer	UPMC and University of Pittsburgh Aging Institute Pilot Funding program
04/29/11	External Reviewer	Fondazione Telethon – Foundation funds research towards a cure for muscular dystrophies and genetic diseases
08/23/11	Ad Hoc Member	Study Section, NIEHS, Environmental Health Sciences Review Committee RFA ES10-001, P30 Center proposals
02/24/11	Ad Hoc Member	Study Section, NIEHS, Special emphasis panel review of Outstanding New Environmental Scientist RFA 10-004, ZES1 TN-J R01
10/01-02/2007	Ad Hoc Member	Study Section, NIGMS, MBRS Support of Competitive Research Review Panel, ZGM1 MBRS-7 CC

Leadership in Scholarly and Professional Organizations and Honorary Societies

Date	Position	Organization
2020-2022	Elected as the DNA Repair SIG Representative to the Program Comittee	Environmental Mutagenesis and Genomics Society
2019	Elected Vice Chair 2021/Chair 2023	Gordon Research Conference on Mammalian DNA Repair
2018-2019	Executive Commitee	Environmental Mutagenesis and Genomics Society
2017-2020	Elected to Council	Environmental Mutagenesis and Genomics Society
2017-2020	Member	Environmental Mutagenesis and Genomics Society Finance Committee
2017	Invited to organized and chair a meeting session	48th Annual Meeting for the Environmental and Genomics Society
2017	Invited to chair a meeting session	2017 Gordon Conference on Mammalian DNA Repair.
2012	Invited to chair a meeting session	2012 Gordon Conference on DNA Damage, Mutation and Cancer. Session on Role of Telomeres in Genomic Instability and Cancer
2011- 2013	Member	Environmental Mutagen Society Awards and Honors committee
2010	Invited to chair a meeting session	2011 FASEB meeting on Helicases and NTP-Driven Nucleic Acid Motors
2010	Chair of Plenary Lecture session	Selected to introduce the Plenary Lecture speaker Dr. Thomas Kensler at the 41th Annual Meeting of the Environmental Mutagen Society, Dallas, TX
2010	Co-chaired and organized a session on “Telomeres, Aging and Human Disease”	Environmental Mutagen Society, 41th Annual Meeting, Dallas, TX
2009	Co-chaired and organized a session on “DNA Damage, Repair and Aging”	10th Annual International Conference on Environmental Mutagens, Florence, Italy.Co-organizer and co-chair

Date	Position	Organization
2008	Co-chaired and organized a session on DNA repair, aging, neurodegeneration, and cancer	Environmental Mutagen Society, 39th annual meeting program committee
2006-10	Member program committee	Environmental Mutagen Society, 38th annual meeting
May 2008	Member	10th Annual Midwest DNA Repair Symposium. Pittsburgh, PA. Committee to select oral presentations from abstracts
Apr 2008	Invited panelist	11th Annual National Institute of Environmental Health Science Career Fair
May 2006	Co-organizer	International Workshop on RecQ Helicases and Other Helicases in Telomere Maintenance and Related Pathways, Lansdowne

Non-Professional Service

Year(s)	Position and Organization	Type of Service
03/2021	W. PA Girl Scout, St. Bede School 4th Grade, virtual	Scient project on acid and base reactions
02/20/2020	W. PA Girl Scout Brownie Troop Science Meeting, St. Bede School 1st-2nd grade	Science project on water testing
08/20/2019	St. Bede School 2nd Annual Back to School Clean Up Day	Participated in cleaning the grounds for the school year
01/24/2019	W. PA Girl Scout Brownie Troop Science Meeting, St. Bede School 1st-2nd grade	Led science project on paper chromatography
08/20/2016	St. Bede School 2nd Annual Back to School Clean Up Day	Participated in cleaning the grounds for the school year
07/31/2014	Participant, DNAZone – CNAST Sciencepalooza	Participated in a demonstration for grade school students of chemiluminescence.

Year(s)	Position and Organization	Type of Service
02/09/14	Participant, DNAZone - CNAST educational outreach program (K-12)	Participated in a workshop for grades 3-5 (10 students) on chemistry of cooking at the Jewish Community Center, Pittsburgh, PA
07/09/09	Participant, Kaboom and Home Depot	Participated in the construction of a playground in the Addison Terrace community, Pittsburgh