Curriculum Vitae

Eric Lieberman Greer

Department of Pediatrics, Washington University School of Medicine in St. Louis
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Education

07/2010-10/2014	Post-doctoral training, Dr Yang Shi's laboratory, Harvard Medical School, MA
01/2010-06/2010	Post-doctoral training, Dr Anne Brunet's laboratory, Stanford University, CA
09/2004-01/2010	Ph.D. Cancer Biology Program, Stanford University, CA
09/2000-06/2004	B.A. Case Western Reserve University, Cleveland OH Major: Biochemistry; Minor: History

Research Experience

01/2023-	Associate Professor with tenure, Department of Pediatrics, Division of Genetics and Genomic Medicine, Washington University School of Medicine, St. Louis, MO
07/2020-12/2022	Faculty Member, HMS Initiative for RNA Medicine, Harvard Medical School, Boston, MA
04/2015-12/2022	Assistant Professor of Pediatrics, Harvard Medical School, Boston, MA (Promotion to Associate Professor in progress)
10/2014-12/2022	Principal Investigator, Division of Newborn Medicine, Boston Children's Hospital
05/2013-03/2015	Instructor in Pediatrics, Harvard Medical School, Boston, MA *Mechanisms of transgenerational epigenetic inheritance*
05/2013-09/2014	Associate Research Staff, Boston Children's Hospital, Boston, MA *Mechanisms of transgenerational epigenetic inheritance*
07/2010-05/2013	Post-doctoral fellow, Yang Shi laboratory, Harvard Medical School, Boston, MA *Mechanisms of transgenerational epigenetic inheritance*
01/2010-06/2010	Post-doctoral fellow, Anne Brunet laboratory, Stanford University, Palo Alto, CA *Chromatin regulation in C. elegans longevity*
09/2004-01/2010	Graduate student, Anne Brunet laboratory, Stanford University, Palo Alto, CA *Dietary restriction pathways and chromatin regulation in C. elegans longevity*
2005	Graduate rotation, Andrew Fire laboratory, Stanford University, Palo Alto, CA
06/2001-09/2004	Undergraduate research student, Sanford Markowitz laboratory, Case Western Reserve University School of Medicine, Cleveland, OH

Genome-wide analysis of misregulated genes in colon cancer progression in human siblings.

06/2001-09/2004 Undergraduate research student, Mark Fleming and Nancy Andrews' laboratories, Harvard Medical School, Boston MA
Identification of novel iron metabolism pathways in mouse models

09/1997-09/2000 High School research student, Judy Lieberman laboratory, Harvard Medical School, Boston, MA
Characterization of the cell death pathway induced by the cytotoxic T cell protease, granzyme A

Awards and Honors

2022-2023 NIH NIA R56
2021-2025 NIH NIAID R01
2019 Presidential Early Career Award for Scientists and Engineers (PECASE)
2018-2020 NIH NHGRI R21
2016-2022 NIH New Innovator Award DP2
2016-2017 Broad Institute – Boston Children's Hospital Collaboration Grant
2016-2018 American Federation for Aging Research (AFAR) Research Grant
2013-2018 NIH Pathway to Independence Award K99/R00
2011-2013 Helen Hay Whitney Fellowship
2010 Life Science Research Foundation Fellowship Finalist (declined)
2010 Runner up for the Aging Cell Best paper prize for 2009
2006-2009 National Science Foundation (NSF) Graduate Research Fellowship (GRF) award
2003 Gamma Sigma Alpha Honor Society
2003 National Dean's List
2002 Mortar Board National Honor Society
2001 Dean's Honor List CWRU (Fall and Spring)
2000 Dean's High Honor List CWRU (Fall)
2000-2004 Provost's Scholarship, CWRU

Teaching and Mentoring Experience

2021 Invited faculty lecturer at Princeton University for QCB490-MOL490: Molecular Mechanisms of Longevity: The Genetics, Genomics, and Cell Biology of Aging
2020-2022 BBS 230: Qualitative and Quantitative Analysis of the Biological Literature co-director
2019 Genetics 390qc: Experimental Approaches in Genetic Analysis, bootcamp class with lectures and experimental supervision of Harvard BBS graduate students
2019 Harvard BBS mentor for Annual DRB Symposium
2018-2019 Supervision of Master's student from Utrecht University (Manouk Gerritsen)
2018-2020 BBS 230: Qualitative and Quantitative Analysis of the Biological Literature course teacher

2018	Panel on PI in Academia at Boston Children's Hospital
2017	Supervision of a MD-PhD student from Liliane Bettencourt Inserm School France (Iliès Haddou)
2016-2019	BBS 330 Critical Thinking and Research Proposal Writing course teacher
2016-	Preliminary Qualifying Exam for 12 Harvard Medical School Candidates (Joseph Beyene (HSPH 2016), Tiasha Shafiq (BBS 2017), Mike Cooney (BBS 2017), Sneha Dutta (HSPH 2017), Lara Roach (BBS 2018), Pallas Yao (HSPH 2018), Tre Artis (BBS 2019), Patrick Griffin (BBS 2019), David Lowe (BBS 2021), Fasih Ahsan (BBS 2021), Christ Petty (BBS 2021), and Evan Yang (BBS 2021).
2016-	Dissertation Advisory Committee for 9 Harvard Medical School Candidates (Aditi Shukla (BBS, 2016-2020), Joseph Beyene (Harvard School of Public Health 2017 – 2020), Sneha Dutta (Harvard School of Public Health 2018 - 2021), Lucydalila Cedillo (BBS 2018 - 2021), Tre Artis (BBS 2020 -), Cindy Chang (BBS 2020 - 2022), Adebanjo Adedoja (BBS 2021 - (chair)), Noel Jackson (BBS 2021 -), Fasih Ahsan (BBS 2021 – (chair)))
2016-	Thesis Defense Committee for 8 Harvard Medical School Candidates (Benyam Kinde (2016 MD-PhD), Xiaoji Wu (2018 PhD), Xiaoyi Wang (2019 PhD), Luciann Cuenca (2019 PhD), Natalia Reim (2020 PhD), Jenny Yan (2021 PhD), Allison Baker (2021 PhD), Pallas Yao (2022 PhD), 1 Harvard School of Public Health 1 UMass Medical School Candidate Io Long Chan (2019 PhD), and 1 University of Nottingham Candidate Abdulkadir Abakir (2020 PhD)
2016-2022	Oversight Committee for 2 Neonatology Fellows in Boston Children's Hospital (Amy O'Connell 2016 - 2020) and (Anna Duncan 2020 - 2022)
2016-2021	Lecturer and day-long leader of section of boot camp DRB 330QC: Experimental Approaches to Developmental and Regenerative Biology, Harvard Medical School
2015	Faculty Seminar for Harvard Medical School Program in Biological and Biomedical Sciences
2015-	Supervision of 1 WUSM graduate rotation student (Ariel Telger (2023), 15 Harvard graduate rotation student (Steven Burger (2015), Lara Roach (2016), David Bellamy (2016), Tre Artis (2017), Andrew Earl (2018), Chaim Chernoff (2019), Rachel Savage (2020), Henry Bushnell (2020), Kejun Ying (2020), Roberto Sotomayor (2021), Nana Yaa Amoh (2021), Maximillian Soltysiak (2021), Ernst Schmid (2021), Nancy Pohl (2021), Ewelina Nowak (2021)) and 2 Stanford graduate rotation students (Dara Dowlatshahi (2007) and Dena Leeman (2008)
2015-	Supervision of 22 undergraduate student **(**Anna Hauswirth (2008-2010), Sanjana Kumar (2015), Sage Wesenberg (2016), Aliya Feroe (2016), Elizabeth Curtis (2017), Nicole Wilkinson (2017), Paul-Enguerrand Fady (2017), Fionna MacWhinnie (2017-2018), Anya Taylor (2019), Colette Fritsche (2019), Anna Dong (2019), George Sabin (2019), Kavya Anjur (2019), Aileen Levan (2020), Gabriela Hoffman (2020), Joseph Al Haddad (2021), Kathleen Kim (2020-2023), Julia Natale (2021), Oge Ogbogu (2021-2022), Scarlett Dellacona (2022), Zilan Li (2022), Elizabeth Resner (2022))

2015-2022 Supervision of staff scientist (Konstantinos Boulias)
2015 Professional Development Seminar Series Academic Panel at Northeastern University
2014 Panel on advice to prepare a K award application at Boston Children's Hospital
2013- Supervision of 12 post-doctoral fellow (David Aristizabal Corrales (2013-2015), Erdem Sendinc (2013-2015), Zach O'Brown (2015-2018), Hiroki Shibuya (2015-2016), Hui Mao (2016-2018), Yuan Simon Wang (2017 – 2022), Noa Liberman-Isakov (2017 – 2020), Ken Takashima (2018 – 2021), Mohd Hafiz Bin Mohd Rothi (2021 – 2022), María Fernanda Trovero Martínez (2022), Raja Khan (2022 -), Gautum Sarkar (2023 -))
2011-2018 Supervision of 3 medical fellows (Ruggero Spadafora (2011-2013), Hanine Hajj (2015-2016), Matthew Smith-Raska (2016-2018))
2002, 2003 Teaching Assistant, Biology 215: Cells and Proteins, Case Western Reserve University

Professional Service

Ad hoc reviewer: Aging Cell, BMC Genetics, Cell, Cell Reports, Cell Research, Current Biology, Development, Developmental Cell, eLife, Environmental Research, Experimental Gerontology, Genome Biology, Human Genetics, Integrative and Comparative Biology, iScience, Molecular Cell, Molecular Metabolism, Nature, Nature Aging, Nature Biotechnology, Nature Communications, Nature Chemical Biology, Nature Genetics, Nature Methods, Nature Structural & Molecular Biology, Nucleic Acids Research, Oncogene, PLoS Biology, PLoS Genetics, PLoS One, PNAS, Review Commons, Science, Science Advances, Scientific Reports, Translational Medicine of Aging

Editorial Boards: Environmental Epigenetics (2015-present), Epigenomes (2018-present)

Grant Application Reviewer: European Cooperation in the field of Scientific and Technical Research COST Switzerland, Biotechnology and Biological Sciences Research Council (BBSRC) Institute Strategic Programme Grant (ISPG) UK, Frontier Science Research Program Taiwan Ministry of Science and Technology, United States-Israel Binational Science Foundation (BSF), National Science Foundation, American Federation for Aging Research National Scientific Advisory Council, German-Israeli Project Cooperation (DIP), King Abdullah University of Science and Technology

Publications (in chronological order, 44 published total)

Manuscripts submitted

Takashima K, Lee DJ, Trovero MF, Rothi MH, Mistry M, Zhang Y, Li Z, Davis CP, Natale J, Schmid E, Al Haddad J, Hoffmann G, Sui SH, Oshiumi H, Lieberman J, and **Greer EL**, NOP16 is a histone mimetic that regulates Histone H3K27 methylation and gene repression (submitted)

Jimenez NA, Castellano M, Santillan EM, Boulias K, Boan A, Padilla LA, Fernandino JI, **Greer EL**, Tosar JP, Cochella L, and Strobl-Mazzulla PH, Paternal methotrexate exposure affects sperm small RNA content and causes craniofacial defects in the offspring (resubmitted)

Liberman N, Gerashchenko MV, Boulias K, MacWhinnie FG, Ying AK, Taylor AF, Al Haddad J, Shibuya H, Roach L, Dong A, Gladyshev VN, and **Greer EL**, Intergenerational hormesis is regulated by heritable 18S rRNA methylation **bioRxiv** doi:https://doi.org/10.1101/2021.09.27.461965 (2021) (in revision)

Sales V, Adachi Y, Isganaitis E, Radford EJ, Desmond J, Chen M, Boulias K, **Greer EL**, Ferguson-Smith A, Patti M-E, Paternal Prenatal Undernutrition Induces Transcriptional Dysregulation of Cell Cycle Gene Expression in Offspring Fetal Liver (submitted)

Peer reviewed articles

Wang SY, Kim K, O'Brown ZK, Levan A, Dodson AE, Kennedy SG, Chernoff C, and **Greer EL**, Hypoxia Induces Transgenerational Epigenetic Inheritance of Small RNAs **Cell Reports** 41(11):111800 (2022)

Tartell M*, Boulias K, Hoffman GB, Bloyet LM, **Greer EL**[$], Whelan S[$] Methylation of viral mRNA cap structures by PCIF1 attenuates the antiviral activity of interferon-β (bioRxiv 423296 (2020)) **PNAS** (2021) 118(29):e2025769118 [$] co-corresponding authors

Coe A, Biller SJ, Thomas E, Boulias K, Bliem C, Arellano A, Dooley K, Rasmussen AN, LeGault K, O'Keefe TJ, **Greer EL**, and Chisholm SW, Coping with darkness: The adaptive response of marine picocyanobacterial to repeated light energy deprivation (bioRxiv 341503 (2020)) **Limnology and Oceanography** 66:9:3300-3312 (2021)

Wang SY, Pollina EA, Wang I-H, Bushnell HL, Takashima K, Fritsche C, Sabin G, Greer PL, and **Greer EL**, Role of epigenetics in unicellular to multicellular transition in *Dictyostelium* (bioRxiv 282152 (2020)) **Genome Biology** 22(1):134-164 (2021)

Boulias K and **Greer EL**, Detection of DNA Methylation in Genomic DNA by UHPLC-MS/MS **Methods Mol Biol** 2198:79-90 (2021)

Liberman N*, O'Brown ZK*, Earl AS*, Boulias K, Gerashchenko MV, Wang SY, Fritsche C, Fady PE, Dong A, Gladyshev VN, and **Greer EL**, N6-adenosine methylation of ribosomal RNA affects lipid oxidation and stress resistance **Science Advances** 6(17):eaaz4370 (2020) * co-first authors

Lizarraga A, O'Brown ZK, Boulias K, Roach L, **Greer EL**, Johnson PJ, Strobl-Mazzulla PH, and de Miguel N, Adenine DNA methylation, 3D genome organization and gene expression in the parasite *Trichomonas vaginalis* (bioRxiv 603894 (2019)) **PNAS** 117(23):13033-13043 **(**2020)

Wang SY*, Mao H*, Shibuya H*, Uzawa S, O'Brown ZK, Wesenberg S, Shin N, Saito TT, Gao J, Meyer BJ, Colaiacovo MP, and **Greer EL**, The demethylase NMAD-1 regulates DNA replication and repair in the *Caenorhabditis elegans* germline **PLoS Genetics** 15(7):e1008252 (2019) * co-first author

Boulias K*, Toczydlowska-Socha D*, Hawley BR*, Liberman N, Takashima K, Zaccara S, Guez T, Vasseur JJ, Debart F, L. Aravind, Jaffrey SR[$], and **Greer EL**[$], Identification of the m^6Am Methyltransferase PCIF1 Reveals the Location and Functions of m^6Am in the Transcriptome (bioRxiv 485862 (2018)) **Mol Cell** 75(3): 631-43.e8 (2019) * co-first authors [$] co-corresponding authors

O'Brown ZK, Boulias K, Wang J, Wang SY, O'Brown NM, Hao Z, Shibuya H, Fady PE, Shi Y, He C, Megason SG, Liu T, and **Greer EL**, Sources of Artifact in Measurements of 6mA and 4mC Abundance in Eukaryotic Genomic DNA **BMC Genomics** 20(1):445-460 (2019)

Greer EL[$], Becker B, Latza C, Antebi A, and Shi Y[$], Mutation of *C. elegans* demethylase *spr-5* extends transgenerational longevity **Cell Research** 26(2):229-38 (2016) [$] co-corresponding authors

Greer EL*[$], Blanco MA*, Gu L, Sendinc E, Liu J, Aristizábal-Corrales D, Hsu C-H, Aravind L., He C, and Shi Y[$] DNA methylation on N^6-adenine in *C. elegans* **Cell** 161(4):868-78 (2015) (Cover Article) * co-first author [$] co-corresponding authors

Greer EL, Beese-Sims SE, Brookes E, Spadafora R, Zhu Y, Rothbart SB, Aristizábal-Corrales D, Chen S, Badeaux AI, Jin Q, Wang W, Strahl BD, Colaiacovo MP, and Shi Y, A histone methylation network regulates transgenerational epigenetic memory in *C. elegans*, **Cell Reports** 7(1):113-26 (2014)

Greer EL, Maures TJ, Ucar D, Hauswirth AG, Mancini E, Lim JP, Benayoun BA, Shi Y, and Brunet A. Transgenerational Epigenetic Inheritance of Longevity in *C. elegans*, **Nature** (Article) 479(7373):365-71 (2011).

Maures TJ, **Greer EL**, Hauswirth AG, and Brunet A. The H3K27 Demethylase UTX-1 Regulates *C. elegans* Lifespan in a Germline-Independent, Insulin-Dependent, Manner **Aging Cell** 10(6):980-90 **(**2011)

Greer EL, Maures TJ, Hauswirth AG, Green EM, Leeman DS, Maro GS, Han S, Banko MR, Gozani O, and Brunet A. Members of the H3K4 Trimethylation Complex Regulate Lifespan in a Germline-dependent Manner in *C. elegans*. **Nature** 466(7304):383-7 (2010).

Greer EL and Brunet A, Different Dietary Restriction Regimens Extend Lifespan by both Independent and Overlapping Genetic Pathways in *C. elegans*, **Aging Cell** 8(2):113-27 **(**2009) (Runner up for Aging Cell Best paper prize for 2009).

Greer EL, Dowlatshahi D, Banko MR, Villen J, Hoang K, Blanchard D, Gygi SP, and Brunet A, An AMPK-FOXO pathway mediates longevity induced by a novel method of dietary restriction in *C. elegans*, **Curr Biol** 17(19):1645-56 (2007)

Greer EL, Oskoui PR, Banko MR, Maniar JM, Gygi MP, Gygi SP, and Brunet A, The energy sensor AMP-activated protein kinase directly regulates the mammalian FOXO3 transcription factor, **J Biol Chem** 282(41):30107-19 (2007)

Pondarré C Antiochos BB, Campagna DR, Clarke SL, **Greer EL**, Deck KM, McDonald A, Han AP, Medlock A, Kutok JL, Anderson SA, Eisenstein RS, and Fleming MD, The mitochondrial ATP-binding cassette transporter Abcb7 is essential in mice and participates in cytosolic iron-sulfur cluster biogenesis, **Hum Mol Genet** 15(6):953-64 (2006)

Ohgami RS, Campagna DR, **Greer EL**, Antiochos B, McDonald A, Chen J, Sharp JJ, Fujiwara Y, Barker JE and Fleming MD, Identification of a ferrireductase required for efficient transferring-dependent iron uptake in erythroid cells, **Nat Genet** 37(11):1264-9 (2005)

Gunshin H, Starr CN, Direnzo C, Fleming MD, Jin J, **Greer EL**, Sellers VM, Galica SM, and Andrews NC, Cybrd1 (duodenal cytochrome b) is not necessary for dietary iron absorption in mice, **Blood** 106(8):2879-83 (2005)

Beresford PJ, Zhang D, Oh D, Fan Z, **Greer EL**, Russo M, Jaju M and Lieberman J, Granzyme A Activates an Endoplasmic Reticulum-associated Caspase-independent Nuclease to Induce Single-stranded DNA Nicks, **J Biol Chem** 276; 43285-43293, (2001)

Reviews

Greer EL, Deadly males accelerate aging with piRNAs **Nat Aging** 3, 7-8 (2023)(preview)

Rothi MH and **Greer EL**, From Correlation to Causation: The New Frontier of Transgenerational Epigenetic Inheritance **BioEssays** 45(1):e2200118. doi:10/1002/bies.202200118 (2023)

Boulias K and **Greer EL**, Biological roles of adenine methylation in RNA **Nat Rev Genet** doi: 10.1038/s41576-022-00534-0 (2022).

Barna M, Karbstein K, Tollervey D, Ruggero D, Brar G, **Greer EL**, and Dinman JD, The promises and pitfalls of specialized ribosomes **Mol Cell** Jun 16;82(12):2179-2184 (2022) (voices)

Boulias K and **Greer EL**, Means, Mechanisms, and Consequences of Adenine Methylation in DNA **Nat Rev Genet** 23(7):411-428 (2022)

Boulias K and **Greer EL**, The adenine methylation debate **Science** Feb 4;375(6580): 494-495 (2022) (perspective)

Burton NO and **Greer EL**, Multigenerational Epigenetic Inheritance: Transmitting information across generations **Semin Cell Dev Biol** Aug 20:S1084-9521(21)00210-X (2021)

Liberman-Isakov N*, Wang SY*, and **Greer EL**, Transgenerational Epigenetic Inheritance: From Phenomena To Molecular Mechanisms, **Curr Opinion in Neurobiology** 59: 189-206 (2019) * co-first authors

Boulias K and **Greer EL**, Put the Pedal to the METTL1: Adding Internal m^7G Increases mRNA Translation Efficiency and Augments miRNA Processing, **Mol Cell** 74(6):1105-7 (2019) (preview)

Boulias K, Lieberman J, and **Greer EL**, An Epigenetic Clock Measures Accelerated Aging in Treated HIV Infection, **Mol Cell** 62(2):153-5 (2016) (preview)

Luo G-Z, Blanco MA, **Greer EL**, He C[$], and Shi Y[$], DNA N6-Methyladenine: a new epigenetic mark in eukaryotes?, **Nat Rev Mol Cell Biol** 16(12):705-10 (2015) [$] co-corresponding authors

Greer EL and Shi Y, What's the *Mtrr* with your grandparents? **Cell Metab** 18(4):457-9 (2013) (preview)

Greer EL and Shi Y, Histone methylation: a dynamic mark in health, disease, and inheritance **Nat Rev Genet** 13(5):343-57 (2012)

Greer EL, Banko MR, and Brunet A, AMP-activated protein kinase and FoxO transcription factors in dietary restriction induced longevity, **Ann N Y Acad Sci** 1170:688-92 (2009)

Greer EL and Brunet A, Signaling networks in aging, **J Cell Sci** 121:407-12 (2008)

Greer EL and Brunet A, FOXO transcription factors in ageing and cancer, **Acta Physiol** 192(1):19-28 (2008)

Greer EL and Brunet A, FOXO transcription factors at the interface between longevity and tumor suppression, **Oncogene** 24(50):7410-25 (2005)

Book Chapters

O'Brown ZK and **Greer EL** N6-Methyladenine: A Rare and Dynamic DNA Mark for the **DNA Methyltransferases – Role and Function Adv Exp Med Biol** 1389:177-210 (2022) (in press)

O'Brown ZK and **Greer EL** N6-Methyladenine: A Conserved and Dynamic DNA Mark for the **DNA Methyltransferases – Role and Function Adv Exp Med Biol** 945:213-246 (2016)

Greer EL and Brunet A, The Genetic Network of Longevity by Dietary Restriction for the **Handbook on the Biology of Aging** 7th Edition (2010)

Commentaries on our Research

Doxtader KA and Nam Y. Preview. Manipulation by Methylation: Garnishing mRNAs with m6Am. **Mol Cell.** 75(3):417-8 (2019)

Cowling VH. Spotlight. CAPAM: The mRNA Cap Adenosine N6-Methyltransferase. **Trends Biochem Sci**. 9(4):190052 (2019)

Stoger R. Idea to watch. A as in actor: A 6mAshing performance. **Bioessays** 37:1152 (2015)

Summerer D. Highlights. Epigenetics: N6-Methyladenine: A potential Epigenetic Mark in Eukaryotic Genomes. **Angew Chem Int Ed** 54: 10714-6 (2015)

Huang S and Chen D. Editorial. N6-methyladenine: a potential epigenetic mark in eukaryotes. **Oncotarget** 6(18): 15744-5 (2015)

Heyn H and Esteller M. Leading Edge Minireview. An Adenine Code for DNA: A Second Life for N6-Methyladenine. **Cell** 161(4):710-3 (2015)

Pang S and Curran SP. Insights & Perspectives. Longevity and the long arm of epigenetics: Acquired parental marks influence lifespan across several generations. **Bioessays** 34(8):652-4 (2012)

Berger SL. Preview. Transgenerational Inheritance of Longevity: Epigenetic Mysteries Abound. **Cell Metab** 15(1):6-7 (2012)

Scaplehorn N. Leading Edge Select. Life Span Coded in Chromatin. **Cell** 147(5):957 (2011)

Muers M. Research Highlight. Epigenetics: inheriting a long life. **Nat Rev Genet,** 12:806-7 (2011)

Mango SE. News and Views. Ageing: Generations of longevity. **Nature**, 479:302-303 (2011)

Ledford H. News. Long life passed down through generations. **Nature**, doi:10.1038/news.2011.602 (2011)

Suh Y and Vijg J Preview. The Long and Short of Fertility and Longevity **Cell Metab** 12(3):209-10 (2010)

Scientific presentations

Epigenetic Inheritance: Impact for Biology and Society August 23-25th 2023 Zurich, Switzerland "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Invited talk)

Kern Lipid Conference 2023 Lipids in Aging, Lifespan and Aging-Associated Diseases August 14-16th 2023 Vail, CO, USA "TBA" (Invited talk)

Washington University in St. Louis School of Medicine DNA Metabolism & Repair seminar series February 1st 2023 St. Louis, MO, USA "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Invited talk)

Baylor College of Medicine December 13th 2022 Waco, TX, USA "Role of Epigenetics in Inheritance and Tumorigenesis" (Invited talk)

Dicty2022: The International *Dictyostelium* conference August 7th-11th 2022 University of Stirling, Scotland UK "Role of Epigenetics in the Evolution of Multicellularity" (Selected talk)

C. elegans Metabolism, Aging, Pathogenesis, Stress and Small RNAs University of Wisconsin Madison, July 14th – 17th 2022 Madison, WI, USA "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Invited talk)

Symposium 2022: How Evolution Learnt to Learn: Epigenetics of Experienced Context July 6th-10th 2022 Salzburg, Austria "Role of Epigenetics in the Evolution of Multicellularity" (Keynote talk)

Keystone Symposia Gene Regulation: From Emerging Technologies to New Models June 20th-24th 2022 Santa Fe, NM, USA "Role of Epigenetics in the Evolution of Multicellularity" (Selected talk)

Korean Society for Biochemistry and Molecular Biology May 24th-26th 2022 Busan, South Korea "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Invited talk)

Brown University Biology of Aging Seminar Series Brown University, April 21st 2022 Providence, RI, USA "Role of rRNA methylation in regulating stress, longevity, and transgenerational epigenetic inheritance" (Invited talk)

Washington University in St. Louis School of Medicine April 19th, 2022 St. Louis, MO, USA "Role of Epigenetics in Tumorigenesis and Inheritance" (Invited talk)

University of Michigan Seminar at Molecular, Cellular, and Developmental Biology April 7th, 2022 Ann Arbor, MI, USA "Role of Epigenetics in Tumorigenesis and Inheritance" (Invited talk)

Dartmouth Geisel School of Medicine Seminar Series March 28th 2022 Hanover, NH, USA "Role of Epigenetics in Tumorigenesis and Inheritance" (Invited talk)

EMBO|EMBL Symposium: Metabolism Meets Epigenetics November 17th – 20th 2021 Berlin, Germany "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Selected talk)

Boston Children's Hospital Division of Newborn Medicine Seminar Series November 12th 2021 Boston, MA, US "Role of Epigenetics in Tumorigenesis and Inheritance" (Invited talk)

Harvard Medical School Initiative for RNA Medicine Retreat, November 10th 2021 Boston, MA, USA "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Invited talk)

EMBO|EMBL Symposium: The Non-Coding Genome, October 13th – 15th 2021 Berlin, Germany "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation" (Selected talk)

Yang Shi 30 Years a PI Symposium Boston Children's Hospital, August 17th 2021 Boston, MA, USA "Intergenerational Hormesis Regulation by Heritable 18S rRNA Methylation"

Department of Genetics, Genomics and Informatics Virtual Seminar Series University of Tennessee Health Science Center May 7th 2021 Memphis, TN, USA "Characterization of a New Epigenetic Model Organism and Modification" (Invited talk)

Cologne Seminars on Ageing Max Planck Institute for Biology of Ageing February 25th 2021 Cologne, Germany "Characterization of a new Epigenetic Model Organism and Modification" (Invited talk)

Gerontology Society of America Nov 4-8th 2020 Philadelphia, PA, USA "Epigenetics, heredity and aging" (Invited Presidential talk)

Boston Children's Hospital Department of Pathology Seminar Series October 15th 2020 Boston, MA, USA "Characterization of a new Epigenetic Model Organism and Modification" (Invited talk)

Aging Science Talks: Science for the Community August 6th 2020 "The Roles of RNA Methylation in Stress and Epigenetics in Multicellularity" (Invited talk)

Metabolism, Aging, Pathogenesis, and Stress in *C. elegans* July 16-19th 2020 Madison, WI, USA "N6-adenosine methylation of ribosomal RNA impacts lipid oxidation and stress resistance" (Invited talk) Postponed due to COVID19

Harvard Medical School Initiative for RNA Medicine Seminar Series June 16th 2020 Boston, MA, USA "Epitranscriptome: The Role of RNA Methylation in Stress and Viral Defense" (Invited talk)

Bay Area Aging Meeting May 18th 2020 Berkeley, CA, USA "N6-adenosine methylation of ribosomal RNA impacts lipid oxidation and stress resistance" (Invited talk) Postponed due to COVID19

Cold Spring Harbor Laboratory Meeting "Regulatory & Non-coding RNAs" May 12th-May 18th 2020 Cold Spring Harbor, NY, US "Ribosomal RNA Methylation Regulates the Stress Response" (Selected talk)

Your DNA: A 21st Century User's Guide Nov 19th 2019 Cambridge, MA, USA "Epigenetics: How non-genetic changes in a parent's environment can be transmitted to their child" (Invited talk)

Harvard University Development and Regenerative Biology Seminar Series Nov 4th 2019 Boston, MA, USA "The role of epigenetics in the transition from unicellularity to multicellularity in *Dictyostelium discodieum"* (Invited talk)

Cold Spring Harbor Laboratory Meeting "RNA Control & Regulation" May 29th- June 3rd 2019 Cold Spring Harbor, NY, US "Identification of the m^6Am methyltransferase PCIF1 reveals the location and functions of m^6Am in the transcriptome"

Harvard Medical School Department of Genetics Retreat February 25th-26th 2019 Boston, MA, US "*Dictyostelium* Reveals the Role of Epigenetics in the Evolution of Multicellularity" (Invited talk)

North Carolina State University seminar series for the Genetics Program Nov 19th 2018, Raleigh, NC, US "Characterization of a new Epigenetic Model Organism and Modification" (Invited talk)

Boston Children's Hospital Division of Newborn Medicine Seminar Series April 20th 2018 Boston, MA, US "Characterization of a new Epigenetic Model Organism and Modification" (Invited talk)

University of Pennsylvania Epigenetics Institute Seminar Series March 8th 2018, Philadelphia, PA, US, "The Role of DNA methylation on N6-adenine in Meiosis" (Invited talk)

14th Annual Gilbert S Greenwald Symposium on Reproduction and Regenerative Medicine Oct 20th 2017 The University of Kansas Medical Center, Kansas City, KS, US, "The Role of DNA methylation on N6-adenine in Meiosis" (Invited Plenary Speaker)

Broad Cell Circuits & Epigenomics Seminar Series April 10th 2017 Cambridge, MA, US, "DNA methylation on N6-adenine in Metazoans" (Invited Talk)

Keynote Speaker at **Basel Worm Meeting** March 16th 2017 Basel, Switzerland, "DNA methylation on N6-adenine (Invited Keynote talk)

Gordon Research "RNA Editing" March 12th-17th 2017 Ventura, CA, US, "DNA methylation on N6-adenine in Metazoans" (Invited talk)

2nd Interventions in Aging Conference March 2nd-5th 2017, Cancun, Mexico "Towards a Mechanism of Transgenerational Inheritance of Longevity" (Invited Talk)

UCSF Seminars in Biomedical Sciences Feb 15th 2017 San Francisco, CA, US "Towards a Mechanism of Epigenetic Inheritance: DNA Methylation on N6-Adenine" (Invited talk)

Vienna Biocenter Feb 2nd 2017 Vienna, Austria, "Towards a Mechanism of Transgenerational Inheritance" (Invited talk)

Boston Children's Hospital Division of Genetics and Genomics Seminar Series Jan 18th 2017 Boston, MA, US "Towards a Mechanism of Epigenetic Inheritance: DNA methylation on N6-adenine" (Invited talk)

Joslin Diabetes and Metabolism Seminar Series Dec 8th 2016 Boston, MA, US "Towards a Mechanism of Epigenetic Inheritance: DNA methylation on N6-adenine" (Invited talk)

Harvard Medical School Epigenetics Symposium Oct 20th 2016 Boston, MA, US "DNA Methylation on N6-Adenine in *C. elegans*" (Invited talk)

***C. elegans* Aging, Metabolism, Stress, Pathogeneis, and Small RNAs** July 21st-24th 2016 Madison, WI, US "DNA Methylation on N6-Adenine in *C. elegans*" (Invited talk/session chair)

Keystone conference "Epigenetic and Metabolic Regulation of Aging and Aging-Related Diseases May 1st-5th 2016 Sante Fe, NM, US "DNA Methylation on N6-Adenine in *C. elegans*" (Selected Talk)

Tel Aviv University March 31st 2016 Tel Aviv, Israel "Towards a Mechanism of Transgenerational Inheritance of Longevity" (Invited Talk)

Woods Hole March 4th 2016 Woods Hole, MA, US "Towards a Mechanism of Epigenetic Inheritance: DNA methylation on N6-adenine" (Invited talk)

Brown University Feb 18th 2016 Providence, RI, US "Towards a Mechanism of Transgenerational Inheritance of Longevity" (Invited talk)

Abcam conference "Chromatin: Structure and Function 2015" Nov 16th-19th 2015 Grand Cayman Island, BWI "DNA methylation on N^6-adenine in *C. elegans*" (Selected talk)

Harvard/Paul F. Glenn Center for the Biology of Aging Nov 10th 2015 Boston, MA, US "Towards a Mechanism of Transgenerational Inheritance of Longevity" (Invited talk)

Sun Yat-Sen Memorial Hospital and Sun Yat-Sen University Oct 19th 2015 Guangzhou, China "DNA methylation on N^6-adenine in Metazoans" (Invited talk)

Abcam conference "Epigenetics, Obesity and Metabolism" Oct 11th-14th 2015 Cambridge, UK "DNA methylation on N^6-adenine in *C. elegans*" (Invited talk)

3rd International Symposium of the TRR81 "Chromatin Changes in Differentiation and Malignancy" Sept 14th-16th 2015 Marburg, Germany "DNA methylation on N^6-adenine in *C. elegans*" (Invited talk)

Boston Area Worm Meeting May 20th 2015 Cambridge, MA, US "DNA methylation on N^6-adenine in *C. elegans*"

Abcam conference "Non-coding RNA: New Mechanisms and Approaches" May 18th-19th 2015 Boston, MA, US "DNA methylation on N^6-adenine in *C. elegans*" (Invited talk)

The XXIII North American Testis Workshop "Healthy Sperm-Healthy Children" April 15th-18th 2015 Salt Lake City, UT, US "Heritable Epigenetics of Complex Traits in *C. elegans*" (Invited talk)

Longwood Worm Meeting March 20th 2015 Boston, MA, US "Identification of N^6-adenine methylation in *C. elegans* DNA"

Eight Annual Division of Aging Biology New Investigators Forum June 10th 2014 Bethesda, MD, US "Identifying the Molecular Mechanisms of Transgenerational Epigenetic Inheritance" (Invited talk)

Boston Children's Hospital Division of Newborn Medicine and Harvard Medical School Department of Pediatrics May 29th 2014 Boston, MA, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

Keystone Symposium on Epigenetic Programming and Inheritance Apr 7th 2014 Boston, MA, US "A Histone Methylation Network Regulates Transgenerational Epigenetic Memory in *C. elegans*" (Selected talk)

Keystone Symposium on Chromatin Mechanisms and Cell Physiology Mar 27th 2014 Oberstdorf, Germany "A Histone Methylation Network Regulates Transgenerational Epigenetic Memory in *C. elegans*" (Selected talk)

Weill Cornell Medical College Department of Pharmacology Feb 21st 2014 New York, NY, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

National Institute of Health National Institute of Aging Feb 12th 2014 Bethesda, MD, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

Vanderbilt University Department of Biological Sciences Feb 10th 2014 Nashville, TN, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

Washington University in St. Louis Department of Genetics Feb 6th 2014 St. Louis, MO, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

University of Texas Southwestern Departments of Pharmacology and Green Center for Reproductive Biology Sciences Feb 4th 2014 Dallas TX, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

University of Michigan Geriatrics Center and Department of Molecular and Integrative Physiology Jan 28th 2014 Ann Arbor MI, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

University of Minnesota Department of Biochemistry, Molecular Biology & Biophysics Jan 8th 2014 Minneapolis, MN, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

Harvard Medical School's Gene Expression and RNA Series Dec 12th 2013 Boston, MA, US "Mechanisms of transgenerational epigenetic inheritance in *C. elegans*" (Invited talk)

University of Michigan Department of Molecular, Cellular, and Developmental Biology Dec 10th 2013 Ann Arbor, MI, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

National Institute of Health Chromosome Biology/Epigenetics Dec 6th 2013 Bethesda MD, US "Mechanisms of transgenerational epigenetic inheritance" (Invited talk)

National Cancer Institute Center of Excellence in Integrative Cancer Biology and Genomics (NIH) Seminar Series April 12th 2013 Bethesda, MD, US "Chromatin Modifiers in Transgenerational Inheritance of Complex Traits in *C. elegans*" (Invited talk)

Longwood Worm Meeting March 8th 2013 Boston, MA, US "Mechanisms of Transgenerational Epigenetic Inheritance"

Department of Medicine **Children's Hospital Boston Chief's of Medicine Conference** Nov 15th 2012 Boston, MA, US "Mechansisms of Transgenerational Epigenetic Inheritance in *C. elegans*"

Age UK speaker **Ageing and Basic Bioscience Conference** Sept 20th-21st 2012 Cambridge, UK "Transgenerational epigenetic inheritance of longevity induced by chromatin modifiers in *C. elegans*" (Invited talk)

FASEB Conference on Transcriptional Regulation During Cell Growth, Differentiation, and Development July 15th-20th 2012 Snowmass Village CO, US "Transgenerational epigenetic inheritance of extended longevity in *C. elegans*" (Selected talk)

Keynote speaker **4th Australian Scientific Conference: Epigenetics 2012** May 7th-9th 2012 Adelaide, Australia "Transgenerational epigenetic inheritance of longevity induced by chromatin modifiers in *C. elegans*" (Invited Keynote talk)

Longwood Worm Meeting Feb 10th 2012 Boston, MA, US "Transgenerational Epigenetic Inheritance"

Abcam Conference on Chromatin: Structure & Function 2011 Dec 5th-8th 2011 Aruba "Transgenerational epigenetic inheritance of longevity induced by chromatin modifiers in *C. elegans*" (Selected talk)

Boston Area Worm Meeting Nov 2nd 2011 Cambridge, MA, US "Transgenerational epigenetic inheritance of extended longevity induced by chromatin modifiers in *C. elegans*"

Cell Symposium: Epigenetics and the Inheritance of Acquired States Oct 30th-Nov 1st 2011 Boston, MA, US "Transgenerational epigenetic inheritance of extended longevity induced by chromatin modifiers in *C. elegans*" (Selected talk)

Longwood Worm Meeting March 23rd 2011 Boston, MA, US "Transgenerational Epigenetic Inheritance of Longevity by Chromatin Modifiers"

Cell and Molecular Biology seminar series of the Department of Biology Stanford University Oct 14, 2008. Stanford, CA, US "An AMPK-FoxO pathway mediates dietary restriction induced longevity in *C. elegans*" (Invited talk)

Cold Spring Harbor Laboratory Meeting "Molecular Genetics of Aging" Sept 24-28, 2008 Cold Spring Harbor, NY, US "Different methods of dietary restriction evoke independent, but overlapping, genetic pathways in *C. elegans*." (Selected talk)

Cold Spring Harbor Laboratory Meeting "Molecular Genetics of Aging" Oct 4-8, 2006 Cold Spring Harbor, NY, US "The energy sensor AMP-activated protein kinase mediates caloric restriction-induced longevity by regulating FOXO transcription factors" (Selected talk)

Current Issues in Genetics seminar series of the Department of Genetics at Stanford University May 5th, 2005 Stanford, CA, US "AMPlifying lifespan: Control of FOXO by AMPK"