

BÉRÉNICE A. BENAYOUN, PH.D.

Assistant Professor of Gerontology and Biological Sciences

Leonard Davis School of Gerontology
USC Norris Comprehensive Cancer Center
USC Stem Cell initiative
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EDUCATION

2007-2011 Ph.D. in Genetics and Cell Biology, Paris Diderot University, École doctorale GC2ID, Paris, France.
2009 Diploma from the École Normale Supérieure (Biology major), France.
2005-2007 M.Sc. in Genetics École Normale Supérieure/Université Paris 7, France.
2005 B.Sc. in Biology, École Normale Supérieure, Université Paris 7, France.
2004-2008 École Normale Supérieure (ENS), Biology Department, Paris, France.

PROFESSIONAL EXPERIENCE

2020-present Biochemistry and Molecular Medicine Department, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA.
2020-present Molecular and Computational Biology Department, Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California, Los Angeles, CA, USA.
2018-present Full member, Genetic and Epigenetic Regulation Program, USC Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA, USA.
2018-present USC Neuroscience Graduate Program, University of Southern California, Los Angeles, CA, USA.
2017-present USC Stem Cell initiative PI, University of Southern California, Los Angeles, CA, USA.
2017-present Assistant Professor of Gerontology, Leonard Davis School of Gerontology, University of Southern California, Los Angeles, CA, USA.
2011-2017 Post-doctoral fellow, Department of Genetics, Stanford University School of Medicine, CA, USA.
2007-2011 Graduate student, Department of Molecular and Cellular pathology, Institut Jacques Monod, CNRS UMR7592, Paris, France.
2007 Visiting student, Department of Genetics and Development, Institut Cochin, INSERM U567, CNRS UMR8104, Paris, France.
2006 Visiting student, University of California at Berkeley, CA, USA.
2005 Visiting student, Northwestern University, Evanston, IL, USA.

ACADEMIC AND PROFESSIONAL HONORS

2020 Kathleen Gilmore Award in Aging Research
2020 Glenn and AFAR Junior Faculty Award
2020 GCRLE Junior Scholar Award
2020 Pew Biomedical Scholar Award
2019 Rosalind Franklin Young Investigator Award in Mammalian Genetics
2019 Publons Peer Review Awards, Top 1% reviewers in Molecular Biology and Genetics
2019 Glenn and AFAR Junior Faculty Award (*Declined*)
2019 Sigma Xi, Scientific Research Honor Society, full membership
2019 Rose Hills Foundation Innovator Grant Award
2019 NAVIGAGE Award
2018 Publons Peer Review Awards, Top 1% reviewers in field
2018 Hanson-Thorell family scholarship

2015	Regeneron Prize for Creative Innovation for a post-doctoral fellow, honorable mention
2014	NIH/NIA Pathway to Independence Award (K99/R00)
2013	Stanford University School of Medicine Dean's postdoctoral fellowship
2011	Ph.D. <i>summa cum laude</i> with highest distinction, Paris Diderot-Paris7 University
2008-2011	Ph.D. fellowship from the Research and National Education Institute/Paris 7 University
2007	M.Sc. <i>summa cum laude</i> (ranked first), Ecole Normale Supérieure/Paris Diderot-Paris7 University
2005	Research fellowship from the Rice Institute of Biomedical Research
2004-2008	Student fellowship from the École Normale Supérieure of Paris

SERVICE TO SCIENCE

Manuscript reviewing activities

2011-present *Ad hoc* manuscript reviewer for *Cell*, *Science*, *Nature Genetics*, *eLife*, *PNAS*, *Genome Research*, *Nature Medicine*, *Nature Aging*, *Cell reports*, *Aging Cell*, etc.
 Verified Reviewer Publons profile: <https://publons.com/a/1446811/>

Grant/fellowship reviewing activities

2021 National Science Foundation (NSF) Reviewer
 2019-present European Science Foundation (ESF), College of Expert Reviewers member
 2019 *Ad hoc* grant reviewer for LA Biomed
 2019 *Ad hoc* grant reviewer for Biotechnology and Biological Sciences Research Council (BBSRC) (UK)
 2017 *Ad hoc* grant reviewer for Estonian Research Council (Estonia)
 2017 *Ad hoc* grant reviewer for Instituto Serrapilheira (Brazil)

Abstract reviewing activities

2020 Abstract reviewer for the 2nd Systems Biology of Aging Meeting at JAX
 2019 Abstract reviewer for the Gerontological Society of America (GSA) 2019 Annual Scientific Meeting
 2019 Abstract reviewer for the 1st Systems Biology of Aging Meeting at JAX

Scientific editing activities

2019-present Associate Editor, Translational Medicine of Aging
 2019-present Reviewing Editor, Frontiers in Aging Neurosciences
 2019 Co-Guest Editor (Special Issue on "Aging and Longevity"), Human Genetics

Conference organization activities

2020 Co-organizer, Systems Immunology in Aging and Chronic Diseases Of Aging, JAX-GM, *Virtual Event*
 2019 Co-organizer, Systems Biology of Aging: Data Science Meets Geroscience, JAX-GM, Farmington, CT, USA

Professional society activities

2020-present Membership committee, American Aging Association (AGE)

PEER-REVIEWED PUBLICATIONS

H-index: 25 (Web of Science, 09/14/2020)

Mean/Weighted RCR: 2.37/87.83 (iCite, 09/14/2020)

Preprints

- Guerrero GA, Schilling K, Mayr FAMC, Lu R, **Benayoun BA** & Denzel MS. NHR-8 regulated P-glycoproteins uncouple xenobiotic stress resistance from longevity in chemosensory *C. elegans* mutants (2019). *BioRxiv*, doi:10.1101/823302

- Lu R, Taylor S, Contrepolis K, Ellenberger M, Sampathkumar NK & **Benayoun BA**. Multi-omic profiling of primary mouse neutrophils reveals a pattern of sex and age-related functional regulation (2020). *BioRxiv preprint*, doi:10.1101/2020.07.06.190595 (in revision at *Nature Aging*)

Original research articles

- Fritsch C, Gout JF, Haroon S, Towheed A, Chung C, LaGosh J, McGann E, Zhang X, Song Y, Simpson S, Danthi PS, **Benayoun BA**, Wallace DC, Thomas WK, Lynch M & Vermulst M. Genome-wide surveillance of transcription errors in response to genotoxic stress (2020). *PNAS*, *in press*
- Reynolds J, Lai RW, Woodhead JST, Joly JH, Mitchell CJ, Cameron-Smith D, Lu R, Cohen P, Graham NA, **Benayoun BA**, Merry TL & Lee C. MOTS-c is an Exercise-Induced Mitochondrial-Encoded Regulator of Age-Dependent Physical Decline and Muscle Homeostasis (2020). *Nature comm*, *in press* (*BioRxiv*, doi:10.1101/2019.12.22.886432)
- Chen Y*, Bravo JI*, Son JM, Lee C & **Benayoun BA**. Remodeling of the H3 nucleosomal landscape during mouse aging (2020). *Transl Med Aging*, **4**, 22-31.
- Mahmoudi S, Mancini E, Moore A, Xu L, Jahanbani F, Hebestreit K, Srinivasan R, Li X, Devarajan K, Prélôt L, Ang CE, Shibuya Y, **Benayoun BA**, Chang ALS, Wernig M, Wysocka J, Longaker MT, Snyder MP & Brunet A. Heterogeneity in old fibroblasts is linked to variability in reprogramming and wound healing (2019). *Nature*, **574**, 553-558.
- Benayoun BA***, Pollina E, Singh PP, Mahmoudi S, Harel I, Casey K, Dulken B, Kundaje A & Brunet A*. Remodeling of epigenome and transcriptome landscapes with aging in mice reveals widespread induction of inflammatory responses (2019). *Genome Research*, **29**, 697-709. *co-corresponding authors
- Kim, KH, Son JM, **Benayoun BA**, and Lee C. The Mitochondrial-Encoded Peptide MOTS-c Translocates to the Nucleus to Regulate Nuclear Gene Expression in Response to Metabolic Stress (2018). *Cell Metab*, **28**, 516-524.
- Contrepolis K*, Coudereau C*, **Benayoun BA**, Schuler N, Roux PF, Bischof O, Courbeyrette R, Carvalho C, Thuret JY, Ma Z, Derbois C, Nevers MC, Volland H, Redon C, Bonner W, Deleuze JF, Wiel C, Bernard D, Snyder MP, Rube C, Olaso R, Fenaille F & Mann C. Histone variant H2A.J accumulates in senescent cells and promotes inflammatory gene expression (2017). *Nat Commun*, **14995**, 10.1038/ncomms14995
- Kurum E, **Benayoun BA**, Malhotra A, George J & Ucar D. Computational inference of a genomic pluripotency signature in human and mouse stem cells (2016). *Biol Direct*, **11**, 47, 10.1186/s13062-016-0148-z.
- Valenzano D*, **Benayoun BA***, Singh PP*, Zhang E, Etter PD, Hu CK, Clément-Ziza M, Willemsen D, Cui R, Harel I, Machado B, Lee MC, Sharp SC, Bustamente C, Beyer A, Johnson EA & Brunet A. The African Turquoise Killifish Genome Provides Insights into Evolution and Genetic Architecture of Lifespan (2015). *Cell*, **163**, 1539-1554. *equal contribution
- Schaffer BE, Levin RS, Hertz NT, Maures TJ, Schoof ML, Hollstein PE, **Benayoun BA**, Banko MR, Shaw RJ, Shokat KM & Brunet A. Identification of AMPK Phosphorylation Sites Reveals a Network of Proteins Involved in Cell Invasion and Facilitates Large-Scale Substrate Prediction (2015). *Cell Metab*, **22**, 907-921.
- Pech MF, Garbuzov A, Hasegawa K, Sukhwani M, Zhang RJ, **Benayoun BA**, Brockman SA, Lin S, Brunet A, Orwig KE & Artandi SE. High telomerase is a hallmark of undifferentiated spermatogonia and is required for maintenance of male germline stem cells (2015). *Genes Dev*, **29**, 1-15.
- Harel I, **Benayoun BA**, Machado B, Singh PP, Hu CK, Pech MF, Zhang E, Fullhart SC, Artandi SE & Brunet A. Rapid exploration of aging and disease-related genes in a naturally short-lived vertebrate (2015). *Cell*, **160**, 1013-1026.
- Kareta MS, Gorges LL, Hafeez S, **Benayoun BA**, Zmoos AF, Cecchini MJ, Spacek D, Batista LFZ, O'Brien M, Ng YH, Ang CE, Vaka D, Artandi SE, Dick FA, Brunet A, Sage J & Wernig M. Inhibition of Pluripotency Networks by the Rb Tumor Suppressor Restricts Reprogramming and Tumorigenesis (2014). *Cell Stem Cell*, **16**, 39-50.
- Benayoun BA***, Pollina EA*, Uçar D*, Wong ED, Mancini E, Mahmoudi S, Hitz BC, Devarajan K, Gupta R, Rando TA, Baker JC, Snyder MP, Cherry JM & Brunet A. H3K4me3 breadth is linked to cell identity and transcriptional consistency (2014). *Cell*, **158**, 673-688. Correction: *Cell*, 2015, **163**, 1281-1286. *equal contribution.

15. Maures TJ, Booth L, **Benayoun BA**, Izrayelit Y, Schroeder F & Brunet A. Males shorten the lifespan of *C. elegans* hermaphrodites via secreted compounds (2014). *Science*, **343**, 541-544.
16. **Benayoun BA***, Anttonen M*, L'hôte D, Bailly-Bechet M, Andersson N, Heikinheimo M & Veitia RA. Adult ovarian granulosa cell tumor transcriptomics: prevalence of FOXL2 target genes misregulation gives insights into the pathogenic mechanism of the p.Cys134Trp somatic mutation (2013). *Oncogene*, **32**, 2739-2746. *equal contribution
17. L'Hôte D, Georges A, Todeschini AL, Kim JH, **Benayoun BA**, Bae J & Veitia RA. Discovery of novel protein partners of the transcription factor FOXL2 provides insights into its physiopathological roles (2012). *Hum Mol Genet*, **21**, 3264-3274.
18. Georges AB, **Benayoun BA**, Marongiu M, Dipietromaria A, L'hôte D, Todeschini AL, Auer J, Crisponi L & Veitia RA. SUMOylation of the Forkhead transcription factor FOXL2 promotes its stabilization/activation through transient recruitment to PML bodies (2011). *PLoS ONE*, **6**, e25463.
19. Greer EL, Maures TJ, Ucar D, Hauswirth A, Mancini E, Lim J, **Benayoun BA**, Shi Y & Brunet A. Transgenerational Epigenetic Inheritance of Longevity in *C. elegans* (2011). *Nature*, **479**, 365-371.
20. Lelièvre EC, **Benayoun BA**, Mahieu L, Roger JE, Sahel JA, Sennlaub F, Veitia RA, Goureau O & Guillonneau X. A Regulatory Domain Is Required for Foxn4 Activity During Retinogenesis (2011). *J Mol Neuroscience*, **46**, 315-323.
21. **Benayoun BA**, Georges AB, L'Hôte D, Andersson N, Dipietromaria A, Todeschini AL, Caburet S, Bazin C, Anttonen M & Veitia RA. Transcription factor FOXL2 protects granulosa cells from stress and delays cell cycle: role of its regulation by the SIRT1 deacetylase (2011). *Hum Mol Genet*, **20**, 1673-1686.
22. **Benayoun BA***, Caburet S*, Dipietromaria A, Georges AB, D'Haene B, Pandaranayaka PJE, L'Hôte D, Todeschini AL, Krishnaswamy S, Fellous M, De Baere E & Veitia RA. Functional exploration of the adult ovarian granulosa cell tumor-associated somatic FOXL2 mutation p.Cys134Trp (c.402C>G) (2010). *PLoS ONE*, **5**, e8789. *equal contribution
23. Dipietromaria A, **Benayoun BA**, Todeschini AL, Rivals I, Bazin C & Veitia RA. Towards a functional classification of pathogenic FOXL2 mutations using transactivation reporter systems (2009). *Hum Mol Genet*, **18**, 3324-3333.
24. Laissue P, Lakhal B, **Benayoun BA**, Dipietromaria A, Braham R, Elghezal H, Philibert P, Saâd A, Sultan C, Fellous M & Veitia RA. Functional evidence implicating FOXL2 in non-syndromic premature ovarian failure and in the regulation of the transcription factor OSR2 (2009). *J Med Genet*, **46**, 455-457.
25. **Benayoun BA**, Batista F, Auer J, Dipietromaria A, L'hôte D, De Baere E & Veitia RA. Positive and negative feedback regulates the transcription factor FOXL2 in response to cell stress: evidence for a regulatory imbalance induced by disease-causing mutations (2009). *Hum Mol Genet*, **18**, 632-644.
26. **Benayoun BA***, Caburet S*, Dipietromaria A*, Bailly-Bechet M, Batista F, Fellous M, Vaiman D & Veitia RA. The identification and characterization of a FOXL2 response element provides insights into the pathogenesis of mutant alleles (2008). *Hum Mol Genet*, **17**, 3118-3127. *equal contribution
27. **Benayoun BA**, Auer J, Caburet S & Veitia RA. The post-translational modification profile of the forkhead transcription factor FOXL2 suggests the existence of parallel processive modification pathways (2008). *Proteomics*, **8**, 3118-3123.
28. Nallathambi J, Laissue P, Batista F, **Benayoun BA**, Lesaffre C, Moumné L, Pandaranayaka PJE, Usha K, Krishnaswamy S, Sundaresan P & Veitia RA. Differential Functional Effects of Novel Mutations of the Transcription Factor FOXL2 in BPES Patients (2008). *Hum Mutat*, **29**, E123-E131.

Review articles

1. Kim M & **Benayoun BA**. The microbiome: an emerging key player in aging and longevity (2020). *Transl Med Aging*, **4**, 103-116.
2. Bravo JI, Nozownik S, Danthi PS & **Benayoun BA**. Transposable elements, circular RNAs and mitochondrial transcription in age-related genomic regulation (2020). *Development*, **147**, dev175786.
3. Sampathkumar NK, Bravo JI, Chen Y, Danthi PS, Donahue EK, Lai RW, Lu R, Randall LT, Vinson N & **Benayoun BA**. Widespread sex-dimorphism in aging and age-related diseases (2020). *Hum Genet*, **139**, 333-356.

4. **Benayoun BA** & Lee C. MOTS-c: A Mitochondrial-Encoded Regulator of the Nucleus (2019). *BioEssays*, **41**, e1900046
5. Lai RW, Lu R, Danthi PS, Bravo JI, Goumba A, Sampathkumar NK & **Benayoun BA**. Multi-level remodeling of transcriptional landscapes in aging and longevity (2019). *BMB rep*, **52**, 86-108.
6. **Benayoun BA***, Pollina EA* & Brunet A. Epigenetic regulation of ageing: linking environmental inputs to genomic stability (2015). *Nat Rev Mol Cell Biol*, **16**, 593-610. *equal contribution
7. **Benayoun BA** & Brunet A. Epigenetic Memory of longevity in *Caenorhabditis elegans* (2012). *Worm*, **1**, 77-81.
8. Yusuf D, Butland SL, [...], **Benayoun BA**, [...] & Wasserman WW. The Transcription Factor Encyclopedia (2012). *Genome Biology*, **13**, R24.
9. Caburet S, Georges A, L'Hôte D, Todeschini AL, **Benayoun BA** & Veitia RA. The transcription factor FOXL2: At the crossroads of ovarian physiology and pathology (2012). *Mol Cell Endocrinol*, **356**, 55-64.
10. **Benayoun BA**, Caburet S & Veitia RA. Forkhead transcription factors: key players in health and disease (2011). *Trends Genet*, **27**, 224-232.
11. Georges AB, **Benayoun BA**, Caburet S & Veitia RA. Generic binding sites, generic DNA binding domains: where does specific promoter recognition comes from? (2010). *FASEB Journal*, **24**, 346-356.
12. **Benayoun BA**, Kalfa N, Sultan C & Veitia RA. The Forkhead transcription factor FOXL2: a novel tumor suppressor gene? (2010). *BBA rev Cancer*, **1805**, 1-5.
13. Kalfa N, Veitia RA, **Benayoun BA**, Boizet-Bonhoure B & Sultan C. The new molecular biology of granulosa cell tumors of the ovary (2009), *Genome Medicine*, **1**, 81.
14. **Benayoun BA** & Veitia RA. A post-translational modification code for transcription factors: sorting through a sea of signals (2009). *Trends Cell Biol*, **19**, 189-197.
15. Moumné L, Batista F, **Benayoun BA**, Nallathambi J, Fellous M, Sundaresan P & Veitia RA. The mutations and potential targets of the forkhead transcription factor FOXL2 (2008). *Mol Cell Endocrinol*, **282**, 2-11.

Book chapters

1. Lu R*, Sampathkumar NK* & **Benayoun BA**. Measuring Phagocytosis in Bone Marrow-Derived Macrophages and Peritoneal Macrophages with Aging (2020). *Methods Mol Biol*, **2144**, 161-170, supervised by S.P. Curran, Springer.
2. Duygu Ucar & **Benayoun BA**. Aging epigenetics: changes and challenges, *in* Epigenetics of Aging and Longevity (2018), supervised by Moskalev & Vaiserman, Elsevier.
3. **Benayoun BA**, Dipietromaria A, Bazin C & Veitia RA. FOXL2: at the crossroads of female sex determination and ovarian function. Section IV: Translating vital cellular mechanisms into successful clinical care, *in* Forkhead Transcription Factors: Vital Elements in Biology and Medicine (2010), supervised by K. Maise, Landes Biosciences.

TALKS

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|------|---|
| 2020 | Molecular and Integrative Physiology Department, University of Kansas Medical Center, Kansas City, KS, USA (<i>Invited speaker</i>) (<i>Virtual Event</i>) |
| 2020 | Presidential Symposium: the Future of Aging Research, Gerontological Society of America's Annual meeting, Boston, MA, USA (<i>Invited speaker</i>) (<i>Virtual</i>) |
| 2020 | CSA Fall Seminar Series, UT Health San Antonio, San Antonio, TX, USA (<i>Invited speaker</i>) (<i>Virtual</i>) |
| 2020 | University of Wisconsin at Madison, Madison, WI, USA (<i>Invited speaker</i>) (<i>Virtual</i>) |
| 2020 | Systems Immunology in Aging and Chronic Diseases of Aging, JAX-GM (<i>Speaker & co-organizer</i>) (<i>Virtual</i>) |
| 2020 | Bay Area Chromatin and Epigenomics Club [BACE], Epigenomics of Aging (<i>Invited speaker</i>) (<i>Virtual</i>) |
| 2020 | Aging Science Talks Webinar Series (<i>Virtual</i>) |
| 2020 | University of Wisconsin at Madison, Madison, WI, USA (<i>Invited speaker</i>) (<i>cancelled due to COVID-19 pandemic</i>) |
| 2020 | National Advisory Council on Aging Speaker, Bethesda, MD, USA (<i>Invited speaker</i>) |
| 2020 | Annual RIKEN Aging Project Meeting, Kobe, Japan (<i>Invited speaker</i>) |
| 2020 | RIKEN Center for Integrative Medical Sciences, Yokohama, Japan (<i>Invited speaker</i>) |
| 2019 | Gerontological Society of America's Annual meeting, Austin, TX, USA (<i>Speaker & Session chair</i>) |

- 2019 Plasticity in the Aging Brain Workshop, Simons Foundation, New York City, NY, USA (*Invited speaker*)
- 2019 Molecular & Computational Biology Colloquium, Dornsife College of Letters, Arts and Sciences, University of Southern California, Los Angeles, CA, USA (*Invited speaker*)
- 2019 1st “Systems Biology of Aging” meeting, JAX-GM, Farmington, CT, USA (*Speaker & co-organizer*)
- 2019 Buck Institute for Aging Research, Novato, CA, USA (*Invited speaker*)
- 2019 48th Annual Meeting of the American Aging Association, San Francisco, CA, USA
- 2019 Frontiers in Alzheimer’s and Aging Research (FrA²R), Atlanta, GA, USA (*Invited speaker*)
- 2019 CZI Workshop on Inflammation, Chan-Zuckerberg Biohub, San Francisco, CA, USA (*Invited speaker*)
- 2019 Department of Genetics and Development, Institut Cochin, Paris, France (*Invited speaker*)
- 2019 Sanford-Burnham Prebys Medical Discovery Institute, La Jolla, CA, USA (*Invited speaker*)
- 2019 Chromatin Biology Symposium, University of Michigan, Ann Arbor, MI, USA (*Invited speaker*)
- 2018 Gerontological Society of America’s Annual meeting, Boston, MA, USA (*Speaker & session chair*)
- 2018 Meeting on Mechanisms of Aging, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA
- 2018 9th Aquatic Models of Human Diseases conference, Marine Biology Laboratory, Woods Hole, MA, USA (*Invited speaker*)
- 2018 47th Annual Meeting of the American Aging Association, Philadelphia, PA, USA (*Invited speaker*)
- 2018 SoCal Fish Meeting, University of Southern California, Los Angeles, CA, USA (*Invited speaker*)
- 2017 Broad CIRM Center Distinguished Speaker Series, University of Southern California, Los Angeles, CA, USA (*Invited speaker*)
- 2017 INC Day 2017, Institut Neurosciences Cognition, University Paris-Descartes, Paris, France (*Invited speaker*)
- 2017 Rockefeller University, New York, NY, USA (*Invited speaker*)
- 2016 Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, NJ, USA (*Invited speaker*)
- 2016 Department of Pathology and Laboratory Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA (*Invited speaker*)
- 2016 The Mayo Clinic, Rochester, MN, USA (*Invited speaker*)
- 2016 Department of Cell and Tissue Biology, University of California, San Francisco, CA, USA (*Invited speaker*)
- 2016 Division of Nutritional Sciences, Cornell University, Ithaca, NY, USA (*Invited speaker*)
- 2016 School of Gerontology, University of Southern California, Los Angeles, California, USA (*Invited speaker*)
- 2016 The Jackson Laboratory, Bar Harbor, ME, USA (*Invited speaker*)
- 2016 Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, NJ, USA (*Invited speaker*)
- 2016 Keystone symposium on Epigenetic and Metabolic Regulation of Aging and Aging-Related Diseases, Hilton Santa Fe Historic Plaza Hotel, Santa Fe, NM, USA
- 2016 Department of Pathology & Immunology, Washington University School of Medicine, St. Louis, MO, USA (*Invited speaker*)
- 2016 Department of Genetics & Complex Diseases, Harvard T.H. Chan School of Public Health, Boston, MA, USA (*Invited speaker*)
- 2014 9th Bay Area Aging Symposium, Gladstone Institutes, University of California, San Francisco, CA, USA
- 2014 Meeting on Epigenetics and Chromatin, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA
- 2014 Département de Biologie, Institut de Biologie de l’ENS, Paris, France (*Invited speaker*)
- 2014 14th Annual Symposium for Biomedical Computing, Stanford University, Stanford, CA, USA
- 2012 5th Bay Area Aging Symposium, Gladstone Institutes, University of California, San Francisco, CA, USA
- 2009 Institut Jacques Monod, IJM2 Inauguration conference, Paris, France (*Invited speaker*)
- 2009 European Human Genetics Conference 2009, Vienna, Austria
- 2007 28^{èmes} Journées Annuelles de la Société Française de Gériatrie et de Gériatrie, Paris, France (*Invited speaker*)

TEACHING AND MENTORING

Teaching

2021-present GERO 516: “Introduction to genomic science for biologists”

2020 Master's course on « modèles d'études pour la recherche fondamentale sur le vieillissement », Université de Toulouse (France), Guest Lecturer
 2020 USC Neuroscience Graduate Program journal club [Guest Lecturer]
 2020 NIA summer training course (*anceled due to COVID-19 pandemic*)
 2020 GERO 599: "Introduction to genomic science for biologists and health scientists"
 2019 GERO 499: "Introduction to genomic science for biologists and health scientists"
 2019 "Frontiers in Alzheimer's and Aging Research (FrA²R)" NIH-funded course, Faculty
 2018, 2019 GERO 510 Guest Lecturer
 2018 GERO/BISC 519 Guest Lecturer
 2018-present GERO 518 Guest Lecturer
 2017-present GERO 600 Guest Lecturer
 2008-2011 Teaching Assistant, Genetics and Cellular Biology, Université Paris Diderot-Paris 7

Mentees

Post-doctoral fellows:

2020-present Bryan Teefy, Ph.D.
 2020-present Min Hoo Kim, Ph.D.
 2018-2019 Nirmal K. Sampathkumar, Ph.D.

Ph.D. students:

2018-present Juan Bravo "Biology of Aging" Ph.D. program
 2017-present Ryan Lu "Biology of Aging" Ph.D. program(2019-present)
 [Lab Technician (2017-2019)]

Master students:

2020-present Emily Wang USC "Master of Science in Gerontology"
 2020 Jane Jung USC "Master of Science in Gerontology"
 2019-present Yilin Chen USC "Master of Science in Nutrition, Healthspan, and Longevity"
 2019 Séverine Nozownik Visiting Scholar, Université Paris-Diderot
 2019-2020 Shelby Brown USC "Master of Science in Gerontology"
 2018 Alexandre Goumba Visiting Scholar, Université Paris-Diderot
 2018 Hanwen Zhang USC "Master of Science in Gerontology"
 2017-2019 Rochelle W. Lai USC "Master of Science in Nutrition, Healthspan, and Longevity"

Rotation students:

2019 Lewis Randall USC Biology of Aging Program, Spring
 2019 Daria Timonina USC Biology of Aging Program, Spring
 2018 Brandon Butler USC Neuroscience Graduate program, Fall
 2018 Erin Donahue USC Neuroscience Graduate program, Winter
 2017 Serban Ciotlos USC Biology of Aging Program, Fall
 2017 Angelina Holcom USC Biology of Aging Program, Fall
 2017 Taekyu Kang USC Biology of Aging Program, Fall

Undergraduate students:

2020-present Catherine Kim USC Human Biology and Communications Major
 2019-present Sanjana Paye USC Neuroscience Major
 2019-present Eric Wang USC Human Biology Major
 2019-present Lois Albert Angelo USC Gerontology Major
 2019 Evelyn Navar Summer ADAR program exchange with UC Davis
 2018-2019 Allison Chae USC Biological Sciences Major
 2018-2019 Astoria Ho USC Lifespan Health Major
 2018-2019 Courtney Shen USC Gerontology Major

2018 Trang Hua Summer ADAR program exchange with UC Davis

High-school students:

2019-present Isabella Lau

Awards received by Mentees

Juan Bravo	2018	Biology of Aging NIH/NIA T32 pre-doctoral fellowship
	2019	NSF Graduate Research Fellowship
Min Hoo Kim, Ph.D.	2020	GCRLE post-doctoral award
Rochelle W. Lai, M.Sc.	2019	USC Leonard Davis School Honors Peterson Master's Student Award
	2019	John Milner Nutrition and Cancer Prevention Research Practicum (NCI)
	2019	Renken Endowed Scholarship
	2018	Doris J. Wescott Endowed Fellowship in Aging
Ryan Lu	2020	Diana Jacobs Kalman/AFAR Scholarship
Bryan Teefy, Ph.D.	2020	Biology of Aging NIH/NIA T32 post-doctoral fellowship

PhD Committee Member

Current:

Edward	Anderton	Gordon Lithgow lab, Biology of Aging, USC/Buck
Mezmur	Belew	Matthew Michael lab, MCB, USC
C. Princesse	Bwiza	C. David Lee lab, Biology of Aging, USC/Buck
Serban	Ciotlos	Judith Campisi lab, Biology of Aging, USC/Buck
Erin	Donahue	Mike Jakowec lab, NGP program, USC
Amy	Hammerquist	Sean Curran lab, MCB, USC
Albina	Ibrayeva	Michael Bonaguidi lab, Biology of Aging, USC/Buck
Taekyu	Kang	Rachel Brem lab, Biology of Aging, USC/Buck
Tingting	Li	Susan Forsburg lab, MCB, USC
Kevin	Manage	Carolyn Phillips lab, MCB, USC
Dieu An	Nguyen	Carolyn Phillips lab, MCB, USC
James	Nhan	Sean Curran lab, MCB, USC
Joshua	Parker	Susan Forsburg lab, MCB, USC
Nicole	Stuhr	Sean Curran lab, MCB, USC
Christian	Turner	Sean Curran lab, MCB, USC
Dylan	Wallis	Carolyn Phillips lab, MCB, USC

Graduated:

Joseph Reynolds, Ph.D. C. David Lee lab, Biology of Aging, USC/Buck *[graduated 2020]*

RESEARCH SUPPORT

Ongoing support

10/2020-09/2023 **Simons Foundation** (Role: PI)

“Simons Collaboration on Plasticity in the Aging Brain”

09/2020-08/2021 **Glenn and AFAR Junior Faculty Award** (Role: PI)

“A genome-to-phenome toolkit to accelerate research into aging in a naturally short-lived vertebrate model”

08/2020-07/2022 **Junior Scholar Award (GCRLE)** (Role: PI)

“Establishing new age-relevant mouse models of menopause”

- 06/2020-06/2024 **Pew Biomedical Scholar Award** (Role: PI)
 “Sex-dimorphic regulation of innate immunity during aging”
- 05/2020-10/2021 **NIH award R21 NS111192** (*subaward*) (Role: co-investigator; PI: Moore)
 “Establishment of a human, age-specific model for axon growth and regeneration studies”
- 07/2019-06/2021 **NIH award R21 AG063739** (Role: PI)
 “Transposable elements as drivers of normal and accelerated aging in Vertebrates”
- 07/2019-06/2021 **Rose Hills Foundation Innovator Grant** (PI)
 “Sex-dimorphic mechanisms in the regulation of healthy mammalian aging”
- 04/2017-05/2021 **R00 Career Development award (National Institutes of Health) R00AG049934** (PI)
 “Regulation of transcriptional consistency by broad H3K4me3 domains in young cells and during aging”

Completed support

- 07/2019-06/2020 **NAVIGAGE foundation seed grant** (PI)
 “Transposable elements as drivers of healthy aging in vertebrates”
- 07/2019-06/2020 **2019 University of Washington Nathan Shock Center pilot grant** (PI)
 “Sex-dimorphism in aging macrophages: metabolomic profiling”
- 07/2018-06/2019 **Hanson-Thorell family scholarship** (PI)
 “A systems biology approach to uncover and target a core vertebrate longevity network”
- 11/2018-12/2018 **2018 JAX Nathan Shock Center pilot grant** (PI)
 “Sex-dimorphism in aging macrophages”
- 04/2015-03/2017 **NIH Pathway to Independence Award K99/R00, K99 phase** (PI)
 “Regulation of transcriptional consistency by broad H3K4me3 domains in young cells and during aging”
- 01/2013-12/2013 **Stanford University Dean’s Postdoctoral Fellowship** (PI)
 “H3K4me3 breadth in mouse neural stem cells”

UNIVERSITY COMMITTEES

- 2019-present Institutional Animal Care and Use Committee
 2018-present Ph.D. in the Biology of Aging Program Executive Committee
 2017-present USC Leonard Davis School of Gerontology Website Committee (Chair 2019-present)

PROFESSIONAL MEMBERSHIPS

- 2019-present New York Academy of Sciences (NYAS)
 2019-present Sigma Xi Honor Society ($\Sigma\Xi$)
 2019-present American Association of Immunologists (AAI)
 2018-present Gerontological Society of America (GSA)
 2018-present American Aging Association (AGE)
 2017-present American Association for the Advancement of Science (AAAS)

SCIENCE OUTREACH

- 2020 USC Women in Molecular Biology (WiM) Curriculum Vitae workshop, panelist
 2020 Guest on “Finding Genius” Podcast (<https://bit.ly/30AxrQC>)
 2020 Faculty in NIA-summer training course (*canceled due to COVID-19 pandemic*)
 2019 Faculty in NIH-funded “Frontiers in Alzheimer’s and Aging Research (FrA²R)” course, targeted for Underrepresented Minorities in Science

2018-present Curator and co-founder for the *MyAgeGroup* twitter feed (<https://twitter.com/myagegroup>)
2016 Category Judge at the Synopsys Championship Science and Technology Fair, San Jose, CA
2008-2010 L'école de l'ADN au Généthon, interventions in underprivileged high-schools around Paris, France

SCIENTIFIC IDENTIFIERS

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