

Gerald S. Shadel, Ph.D. Professor and Audrey Geisel Chair in Biomedical Science Director, San Diego Nathan Shock Center of Excellence in the Basic Biology of Aging Salk Institute for Biological Studies 10010 N Torrey Pines Rd La Jolla, California 92037 PH (858) 453-4100 gshadel@salk.edu www.salk.edu

May 16, 2023

Dear ApCom members,

As two faculty sponsors, we are writing to enthusiastically support the continued appointment of Dr. Leanne Jones as an adjunct professor at the Salk Institute. Leanne is currently a Professor in the Departments of Anatomy and Medicine, and Director of the Bakar Aging Research Institute at UCSF. Prior to this she was an Assistant and Associate Professor at the Salk Institute and an Associate and full Professor at UCLA. Leanne is an expert in stem cell biology and metabolism, with a focus understanding how these impact aging and age-related diseases. She has an impressive publication, award and service record in these areas (see her CV), which are also key areas of research and growth at the Institute. In fact, developing the Healthy Aging Center at Salk is one of the current key initiatives at the Institute.

Dr. Jones' continued adjunct appointment is valuable to the Institute on several important fronts. First, as she is Director of Bakar Aging Research Institute, there is a unique opportunity to forge new interactions and collaborations with our two aging research centers, the Glenn Center for Biology of Aging Research and the San Diego Nathan Shock Center (SD-NSC) of Excellence in the Basic Biology of Aging. Outreach interactions like this with other researchers and centers are actually critical for renewal of the SD-NSC. In terms of specific interactions, Leanne has agreed to rotate onto the SD-NSC external advisory board at the upcoming renewal, will participate on the scientific review panel and as mentor for the SD-NSC pilot grant program. Second, her expertise in stem cells will be used in an advisory capacity to help the Salk stem cell core and the SD-NSC "Human Cell Models of Aging Core" provide human fibroblasts and induced cell types to the aging researcher community at Salk and at large. This aids not only the SD-NSC clinical cohort collection, but also benefits the Allen-AHA project on the role of aging in cognitive decline and Alzheimer's Disease, which involves ten labs at Salk. Finally, Leanne is available to visit the institute and share her work and expertise at any time in the form of seminars, training workshops/symposia for the SD-NSC, and the annual La Jolla Aging Meeting organized by the Salk Glenn Center.

In summary, Dr. Jones continued formal affiliation with Salk goes far beyond a typical adjunct appoint. Her active participation as described above will have a significant impact on our own aging research centers and activities and bolster our efforts formalize the bigger *Healthy Aging Initiative* at the Institute.

Sincerely,

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Gerald S. Shadel



Salk Adjunct Service/Contributions Form

Name: Sponsors:

Appointment Start Date:

To be eligible for appointment and reappointment in the Adjunct series, appointees are expected to be engaged in <u>at least two</u> Institute-related activities outlined below. If you are being considered for your first Adjunct Professor appointment, provide information about your plans to engage in the Salk community and select any of the activities you would be interested in below. If you are being considered for reappointment, select your ongoing activities and give a brief summary of your engagement in each activity during the past appointment period. Also provide a summary of your plans to engage in the Salk activities during the next appointment period.

Salk Activities (list the course/seminar titles, committees, and student names if known)

* Please note research collaborations with a Salk Faculty sponsor(s) do not qualify as Institute-related activities expected for an Adjunct position

- $\hfill\square$ Giving Seminars, such as those hosted by Sponsors or by the Institute
- □Teaching in Salk-organized courses
- □ Serving on UCSD Student Review committees and/or Thesis Committees in Salk Labs
- □ Reviewing Postdoctoral and other Internal Grants

□Participating in Salk's outreach and educational efforts to recruit underrepresented minority student applicants

Consulting on Salk scientific initiatives or multi-PI grants

- □Serving on Faculty Review Committees
- □Promoting award and nomination opportunities for Salk Faculty
- □ Organizing or participating on Salk Meetings or Conferences
- □ Other

Salk Service Summary & Plans: Describe your plans to engage in the activities marked above during the next appointment period (i.e.: Salk Course or Seminar Titles, names of Student or Faculty review committee, description of contributions to grants, etc. if unable to fit above). If you are being considered for reappointment, also describe your engagement in the Salk activities during the last appointment period. You may attach a supplemental letter with these activities as needed.

D. Leanne Jones

Departments of Anatomy and Medicine, Division of Geriatrics University of California, San Francisco 513 Parnassus Ave., HSW 1323 San Francisco, CA 94143 Email: <u>leanne.jones@ucsf.edu</u>

Education:

- 1992-1998 Ph.D., Harvard Medical School, Program in Biological and Biomedical Sciences, Department of Microbiology and Molecular Genetics; Thesis: "The Human Papillomavirus E7 Oncoprotein Utilizes Multiple Mechanisms to Overcome Cellular Growth Arrest Signals"
- 1988-1992 B.S., Washington and Lee University; graduated Magna Cum Laude with Honors in Biology; Undergraduate Honors Thesis Research "Development of a Novel Mutagenesis Protocol: Using Nitrous Acid to Generate Random Mutations in the E1 Gene of Sindbis Virus."

Academic Appointments:

2021- present	Professor, Departments of Anatomy and Medicine, Univ. of California, San
*	Francisco, San Francisco, CA
2021- present	Director, Bakar Aging Research Institute
2014-2021	Professor, Molecular, Cell, and Developmental Biology, Univ. of California, Los Angeles, Los Angeles, CA
2013-2014	Associate Professor, Molecular, Cell, and Developmental Biology, Univ. of California, Los Angeles, Los Angeles, CA
2011-2013	Associate Professor, Laboratory of Genetics, Salk Institute for Biological Studies La Jolla, CA
2004-2011	Assistant Professor, Laboratory of Genetics, Salk Institute for Biological Studies, La Jolla, CA
2000-2004	Postdoctoral Fellow, Department of Developmental Biology, Stanford University, Stanford, CA
1998-2000	Postdoctoral Fellow, Centre for Developmental Genetics, University of Sheffield, Sheffield, England
1992-1998	Graduate Student, Program in Biological and Biomedical Sciences, Harvard Medical School, Boston, Massachusetts.
Summer 1991	Summer Medical and Research Training Program, Institute for Molecular Genetics, Baylor College of Medicine, Houston, Texas.
Summer 1990	Robert E. Lee Research Scholar, Biology Department, Washington and Lee University, Lexington, Virginia.

Awards, Honors, and Special Recognitions:

08/15	Glenn Award for Research in Biological Mechanisms of Aging
4/08-3/14	California Institute of Regenerative Medicine New Faculty Award
7/07-6/11	American Cancer Society Research Scholar
6/06-6/08	American Federation for Aging Research award for Junior Faculty
8/05-7/09	Ellison Medical Foundation New Scholar in Aging Award
6/01-6/04	Lilly Fellow of the Life Sciences Research Foundation
9/99-7/00	Human Frontiers Science Program (HFSP) postdoctoral fellowship
1998	AACR-AFLAC Scholar in Cancer Research

1997	Rhône Poulenc Young Investigator Award-awarded by AACR
1992-date	Phi Beta Kappa
1991	Robert E. Lee Research Grant in Biology
Service: Scient	ific Community
Cell Rer	ports Advisory Board (2012-present)
Molecul	ar Biology of the Cell. Board of Reviewing Editors (2008-present)
Reviewe	ed manuscripts for: Cell. Cell Reports. Developmental Cell. Cell Stem Cell.
	Nature, Nature Cell Biology, Nature Communications, Science, Development,
ر.	Developmental Biology, Genes and Development, Aging Cell, Current Biology.
	EMBO, EMBO Reports, Stem Cell Reports, Scientific Reports, PNAS
Member	of NIA-B study section (2014-2021)
America	n Federation for Aging Research's National Scientific Advisory Council
	(NSAC) (2014-present)
Reviewe	ed grants for American Cancer Society (ACS), American Federation for
	Aging Research (AFAR), NIH (NIA, NIGMS), ERC, EMBO
Member	; Connecticut Stem Cell Research Grants Program Peer Review Committee
Mamhar	(2007-2010) Exitemal Advisory Committee Meyert Desert Island Dislocies Laboratory
Member	Center of Biomedical Research Excellence in the Comparative Biology of Tissue
1	Repair Regeneration and Aging (2013-2020)
Member	· Division of Aging Biology External Review Panel-Future Strategic
Wiennoer	Investments Focus Group (2014)
Member	Type I Diabetes (T1D) Consortium Review Committee, The Leona M. and
]	Harry B. Helmsley Charitable Trust (2014)
Co-chair	r, ISSCR Junior Investigators Committee (2011-2014)
Member	, ISSCR Annual Meeting Program Committee (2013-2014)
Organize	er, Stem Cells and Metabolism, Salk Institute for Biological Studies, Nov. 5-6,
	2012 (Sponsored by Abcam)
Organize	er, Program Committee Head, 58th Annual <i>Drosophila</i> Research Conference,
C. L.C.	March 2017, San Diego, USA.
Californ	a Regional Representative on the National Drosophila Board of Directors (2019-
2022) Organize	er Fusion Conference on Intestinal stem cell Niche Interactions in Development
Organize	and Disease (May 2022 May 2024)
Vice cha	and Disease (May 2022, May 2024)
v iee end	Conference
Officer of	of the Life Sciences Research Foundation (2022- present)
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Service: Salk	Institute
Member	, Academic Planning Forum (2009-2013)
Organiz	, Academic Council (2000-2012) er of the Stem Cell Interest Group meeting (2007-2013)
Organize	Monthly meeting for Institutions included in the Sanford Consortium for
1	Regenerative Medicine during which students and postdocs present their work in
	a formal setting.
Foundin	g member of Salk Excellerators (2008-2010)
	Served as faculty liaison to establish scientific programs for the group.
C	
Service: Unive	rsny of Camornia- Los Angeles ctor- UCLA-Caltech Medical Scientist Training Program (2015-2020)

Co-Director- UCLA-Caltech Medical Scientist Training Program (2015-2020) Associate Director of Graduate Education- UCLA-Caltech Medical Scientist Training Program (2013-2015)

- Co-Director of Cell and Developmental Biology home area within the new Graduate Program in Biosciences (2013-2015)
- Alternate Member of UCLA Legislative Assembly for MCDB (2014-2021)

Faculty coordinator for the JCCC-BSCRC 2013-2014 seminar series

- Co-organizer of the Tri-Institutional Broad Stem Cell Centers, Asilomar Retreat (2014)
- Member, Regeneration/Degeneration Organizational Task Force (David Geffen School of Medicine)
- Search Committee: Department of Medicine, Division of Endocrinology (Spring 2015); Resulted in successful recruitment of Orian Shirihai, MD, PhD
- Search Committee: Department of Urology (Fall 2015); Resulted in hiring of Andrew Goldstein, PhD
- Executive Committee: Department of Molecular, Cell, and Developmental Biology, EC member in charge of Space for Terasaki Life Sciences Building (2017-2021)
- Executive Committee: Jonnsson Comprehensive Cancer Center (2019-2021)
- Search Committee: Department of Molecular, Cell, and Developmental Biology and Institute for Quantitative and Computational Biology (Winter/Spring 2018); Resulted in hiring of Pavak Shah, PhD
- Search Committee: Department of Molecular, Cell, and Developmental Biology (Spring 2018); Resulted in hiring of Nathanaël Prunet

Organizing Committee of BSCRC Annual Stem Cell Conference (2018-2019)

Service: University of California- San Francisco

Inaugural Director- Bakar Aging Research Institute (2021-present) Vice Chair, Department of Anatomy (2022-present) Search Committee: Director of the Institute for Health and Aging, UCSF School of Nursing (2022) Search Committee: Chair, Department of Cellular and Molecular Pharmacology, UCSF School of Medicine (2022)

Coursework/training:

"Advanced Faculty Mentoring Practices" adapted from the *National Research Mentoring Network*, UCLA (9/2018) "Introduction to Leadership", UCLA Faculty Leadership Development Program (10/18) HHMI Workshop on Inclusive Excellence, Mar. 2019, Santa Barbara, CA, USA UCLA Faculty Leadership Academy (01/19-05/19)

UC Women's Leadership Initiative (Winter 2020, applied)

Graduate Students (UCLA):

Chris Koehler (05/10-12/16)- current position, Scientist at PhenoVista, San Diego, CA

- Sophia Lewis (07/14-08/18)- current position, Resident Physician at Barnes-Jewish Hospital, St. Louis, MO
- Rachel Hodge (06/18-10/22)- current position, postdoctoral fellow, NYU *Supported by CMB training grant 07/18-06/19, Diversity Supplement to R01 DK105442-01 08/19-03/21
- Jordan Kryza (12/17-present; advanced to candidacy 10/19) *Supported by CMB training grant 07/18-06/19, BSCRC training grant 09/19-08/21
- Nicholas Jackson (06/19-present; advanced to candidacy 10/20) *Supported by CMB training grant 07/19-06/21

Thesis Committees (UCLA):

Xavier Gaeta (Lowry lab, MCDB; graduated May 2016) Austin McDonald (Arispe lab, MCDB; graduated May 2017) Aimee Flores (Lowry Lab, CDB/MBIDP; graduated May 2018) Xuchen Chen (Young Lab, BBSB/MBIDP; graduated May 2019) Aanand Patel (Quinlin Lab, BBSB/MBIDP; graduated May 2019) Matilde Miranda (Lowry Lab, CDB/MBIDP; graduated November 2020) Victoria Sun (Crooks Lab, CDB/MBIDP; graduated June 2021) Tsonte Chitiashvili (Plath/Clark Labs, CDB/MBIDP; graduated March 2022) Anna Afasizheva (Plath Lab, CDB/MBIDP; graduated May2022)

Thesis Committees (UCSF):

Mariko Foecke (Laird Lab, BMS) Juliana Sucharov Costa (Villeda Lab, BMS) Emily Wolfram (Nystul Lab, DSCB) Rhea Misra (Villeda Lab, BMS)

Teaching Experience (UCLA):

Winter/Spring 2020, MCD Biology 180A, B, Scientific Analysis and Communication I, II Winter 2020, MBIDP 254C: Stem cells in Development and Disease (co-taught w/ J. Long) Winter/Spring 2019, MCD Biology 180A, B, Scientific Analysis and Communication I, II Winter/Spring 2018, MCD Biology 180A, B, Scientific Analysis and Communication I, II Winter 2018, MBIDP 254C: Stem cells in Development and Disease (co-taught w/ J. Long) September 2017, Karolinska Institute, Course on Stem Cell Niches, lecture and Symposium speaker

Spring 2017, MCD Biology 191, Special Seminar on Stem Cells in Development and Disease Winter 2017, MBIDP 254C: Stem cells in Development and Disease

Fall-Winter 2015/2016 and 2016/2017: Introduction to Biomedical Research at UCLA (SL699) September 2016, Karolinska Institute, Course on Stem Cell Niches, lecture and Symposium speaker

Spring 2015, 2016, 2018, 2019 MCD Biology 168, Stem Cell Biology, UCLA (guest lecture) Spring 2015, LS4, Genetics

Spring 2014, MCD Biology 168, Stem Cell Biology

Winter 2014, Lecture for 5HB in the Biomedical Minor

Fall 2013, Gerontology & Social Welfare M108, Gerontology Interdisciplinary Minor (GIM) core course "Biomedical, Social and Policy Frontiers in Human Aging" (guest lecturer)

September 2013, Spetses Summer School, Molecular Mechanisms of Development, Aging and Regeneration, Spetses, Greece

July 2013, Ellison Medical Foundation, Course on the Biology of Aging, Woods Hole, MA May 2013, MCD Biology 168, Stem Cell Niches, UCLA (guest lecture)

Winter Quarter 2012 BGGN 228, Hot Topics in Developmental Biology, UCSD February 2007-2011 CIRM core course

Winter Quarter 2009 BGGN 231 Current Concepts in Stem Cell Biology UCSD

Fall Quarter 2009 BIOM 200 Section on Stem Cell Biology UCSD

April 2007, MCD Biology 168, Stem Cell Niches, UCLA (guest lecture)

Teaching Experience (UCSF):

Winter 2022 BMS 225B: Critical Thinking and Science Communication for Biomedical Scientists (with S. Villeda)

Undergraduate Mentoring (UCLA:

Faculty Reviewer for Undergraduate Research Scholars Program (2016, 2017, 2018) Review of MARC/BECKMAN/UC LEADS student research proposals 2014, 2015 UCLA Science Poster Day Judge 2014, 2017, 2018

UCLA undergraduate Melissa Truong (06/12-06/15; graduate student at UCSF)

UCLA CARE student mentor (Sharon Lee; 03/14- 06/16; graduate student at UC Davis)

UCLA BriSURP student mentor (Justin Okonkwo; 6/15-8/15; undergraduate at CSU Fresno)

UCLA undergraduate Alex Tang (06/14-06/18); started PhD training at Massassachusetts Institute of Technology in Fall 2018

UCLA undergraduate Bradley Uyemura (01/15-07/18); started MD training at Medical College of Wisconsin in Fall 2018

UCLA MARC student mentor (Fernando de la Torre; 04/16- 07/18); began training as a Laboratory Assistant at UC-Davis July 2018

- UCLA undergraduate Emma Edmonds (12/16-06/19) *supported by URSP; in training to be a Physician's Assistant
- UCLA undergraduate Joanna Su (04/17-06/19) *supported by URSP; in training to be a Pharmacist
- UCLA undergraduate Alexa Kwang (05/18-6/20); applied to medical school

UCLA CARE student mentor (Nathan Barney; 12/17- 3/18; 9/18- 6/20) Graduate student at UCSD, San Diego, CA.

UCLA undergraduate Brian Stack (3/18-6/20) Graduate student at UCSD, San Diego, CA.

UCLA undergraduate Mateo Ruvalcaba (05/18- 9/20) * received the COMPASS Life Sciences Dean's Award; Emergency Medical Technician

UCLA undergraduate Molly Carney (3/20-06/22); graduate student, MIT

UCLA undergraduate Cole Woulbroun (3/20-present)

Patents: The human papillomavirus E7 protein abrogates p21^{Cip1}-mediated inhibition of cyclin-dependent kinases (cdks): "Method and kit for evaluating transformed cells." US Patent 5736318; Issue date 04/07/98.

Peer-reviewed publications:

Original Research

D. L. Jones and K. Münger. 1997. Analysis of the p53-mediated G1 growth arrest pathway in cells expressing the human papillomavirus type 16 E7 oncoprotein. J. Virol.: **71** 2905-2912.

D. L. Jones, R. M. Alani, and K. Münger. 1997. The human papillomavirus E7 oncoprotein can uncouple cellular differentiation and proliferation in human keratinocytes by abrogating p21^{Cip1}-mediated inhibition of cdk2. Genes and Development: **11** (16) 2101-2111.

D. L. Jones, D. A. Thompson, and K. Münger. 1997. Destabilization of the RB tumor suppressor protein and stabilization of p53 contribute to HPV type 16 E7-induced apoptosis. Virology: **239** 97-107.

D. L. Jones, D. A. Thompson, E. Suh-Bürgmann, M. Grace and K. Münger. 1999. Expression of the HPV E7 oncoprotein mimics but does not evoke a p53-dependent cellular DNA damage response pathway.Virology : **258**, 406-414.

A. A. Kiger*, **D. L. Jones***, C. Schulz, M. B. Rogers, M.T. Fuller. 2001. Stem Cell Selfrenewal specified by JAK-STAT signaling in response to a support cell cue. Science. **294**: 2542-2545. (*-equal contribution)

B. Glise*, **D. L. Jones***, and P.W. Ingham. Notch and Wingless modulate the response of cells to Hedgehog signalling in the *Drosophila* wing. 2002. Dev. Biol. **248**: 93-106. (*-equal contribution)

C. Schulz, C. G. Wood, **D. L. Jones**, S. I. Tazuke, and M. T. Fuller. 2002. Signaling from germ cells mediated by the *rhomboid* homologue *stet* organizes encapsulation by somatic support cells. Development. 129 (19): 4523-4534.

Y.M. Yamashita, **D.L.Jones**, and M.T. Fuller. 2003. Orientation of asymmetric stem cell division by the APC tumor suppressor and centrosome. Science. **301**: 1547-1550.

C. Schulz, A.A. Kiger, S.I. Tazuke, Y.M. Yamashita, L.C. Pantalena-Filho, **D.L. Jones**, C.G. Wood and M. T. Fuller. 2004. A mis-expression screen reveals effects of *bag-of-marbles* and *Tgfb* class signaling on the *Drosophila* male germ line stem cell lineage. Genetics **167**: 707-723.

E.L. Beall, P.W. Lewis, M. Bell, M. Rocha, **D.L. Jones**, and M.R. Botchan. 2007. Pleiotropic functions of Myb- MuvB and a testis meiotic arrest complex (TMAC) regulate testis development in *Drosophila*. Genes and Dev. **21**: 904-919.

M. Boyle, C. Wong, M. Rocha, and **D. L. Jones**. 2007. Decline in self-renewal factors leads to aging of the stem cell niche in the *Drosophila* testis. Cell Stem Cell. **1(4)**: 470-478.

T. Flatt, K.-J. Min, C. D'Alterio, E. Villa-Cuesta, J. Cumbers, R. Lehmann, **D. L. Jones**, and M. Tatar. 2008. *Drosophila* Germ-Line Modulation of Insulin Signaling and Lifespan. PNAS. **105(17)**: 6368-6373.

J. Voog, C. D'Alterio, and **D.L. Jones**. 2008. Multipotent somatic stem cells contribute to the stem cell niche in the *Drosophila* testis. Nature. **454(7208)**: 1132-6.

W. Mair, C. McLeod, L. Wang, and **D. L. Jones**. 2010. Dietary restriction enhances germline stem cell maintenance. Aging Cell. **9**(5):916-8.

C. McLeod, L. Wang, C. Wong, and **D. L. Jones**. 2010. Stem cell dynamics in response to nutrient availability. Current Biology. **20**: 1-6.

L. Wang, C.J. McLeod, **D.L. Jones**. 2011. Regulation of adult stem cell behavior by nutrient signaling. Cell Cycle. Aug 15;10(16):2628-34. Epub 2011 Aug 15.

M. Reya, S. Bahadorani, J. Cho, C. Koehler, M. Ulgherait, J.H. Hur, W. S. Ansari, T. L. Lo, Jr., **D. L. Jones*** & Walker, D.W.* 2011. Modulation of longevity and tissue homeostasis by the *Drosophila* PGC-1 homolog. Cell Metabolism **14**: 623-34. *co-corresponding authors.

C. Wong and **D.L. Jones**. 2012. Efficiency of spermatogonial dedifferentiation during aging. PLoS One. 7(3):e33635. Epub 2012 Mar 19.

H. Toledano, C. D'Alterio, B. Czech, E. Levine, and **D.L. Jones**. 2012. The *let-7-Imp* axis regulates aging of the *Drosophila* testis stem cell niche. Nature. **485**: 605-610.

H. Toledano, C. D'Alterio, M. Loza-Coll, and **D.L. Jones**. 2012. Dual fluorescent detection of protein and RNA in *Drosophila* tissues. Nature Protocols. **7**: 1808-1817.

L.P.F. Resende, M. Boyle, D. Tran, T. Fellner, and **D. L. Jones**. 2013. Headcase promotes cell survival and niche maintenance in the *Drosophila* testis. PLoS One. Jul 9;8(7):e68026. doi: 10.1371/journal.pone.0068026

J. H. Hur, S. Bahadorani, J. Graniel, C. L. Koehler, M. Ulgherait, M.Rera, **D. L. Jones**, and D. W. Walker. 2013. Increased food intake and longevity mediated by yeast NDI1 expression in Drosophila intestinal stem and progenitor cells. Aging. **5** (9). Epub September 9.

J. Voog, S. Sandall, G. Hime, Resende, L.P.F., A. Aslanan, M. Loza-Coll, T. Hunter, M.T. Fuller, and **D.L. Jones**. 2014. Escargot restricts niche cell-stem cell conversion in the *Drosophila* testis. Cell Reports **7** (**3**): 722-734.

S. Landais, C. D'Alterio, and **D.L. Jones**. 2014. Persistent replicative stress regulates Polycomb phenotypes and tissue homeostasis in *Drosophila*. Cell Reports **7** (**3**): 859-870.

J. P. Korzelius, S.K. Naumann, M.A. Loza-Coll, J.S.K.Chan, D. Dutta, J. Oberheim, C. Glaesser, T. Southall, A. Brand, **D. L. Jones**, B.A. Edgar. 2014. The Snail-family transcription factor escargot maintains stem cell identity and suppresses differentiation in the Drosophila intestine. EMBO Journal. Oct 8. pii: e201489072. [Epub ahead of print].

M. Loza Coll, T. Southall, S. Sandall, A. Brand, and **D.L. Jones**. 2014. Regulation of *Drosophila* intestinal stem cell maintenance and differentiation by the transcription factor Escargot. EMBO Journal. Nov 27. pii: e201489050. [Epub ahead of print].

A. E. Conway§ E. L. Van Nostrand§, G.A. Pratt, S. Aigner, M. L. Wilbert, B. Sundararaman, P. Freese, N. J. Lambert, S. Sathe, T. Y. Liang, A. Essex, S. Landais, C.B. Burge, **D. L. Jones***, G. W. Yeo*. 2016. Enhanced CLIP uncovers IMP protein-RNA targets in human pluripotent stem cells important for cell adhesion and survival. Cell Reports. Apr 19;15(3):666-79. doi: 10.1016/j.celrep.2016.03.052. Epub 2016 Apr 7. § -equal contribution, *- co-corresponding.

Martin Resnik, C. L. Koheler, R. Clarke, J.M. Schinaman, V. Sauer, C. D'Alterio, D. Wong, S. Lewis, Y. Wu, E. Stefani, D. Walker, and **D. L. Jones**. 2016. Age-related loss of tricellular junction proteins leads to altered stem cell behavior in the *Drosophila* intestine. *Nature Cell Biology*. 19 (1): 52-59. doi: 10.1038/ncb3454. Epub 2016 Dec 19.

L.P.F. Resende, M. Truong, A. Gomez, and **D. L. Jones**. Intestinal stem cell ablation reveals differential requirements for survival in response to chemical challenge. 2017. *Developmental Biology*. Apr 1;424(1):10-17. doi: 10.1016/j.ydbio.2017.01.004. Epub 2017 Jan 17. PMID: 28104389

C. L. Koehler, G. Perkins, Y. Wu, M. Ellisman, **D. L. Jones.** Pink1 and Parkin regulate *Drosophila* intestinal stem cell proliferation during stress and aging. 2017. *J Cell Biol.* Aug 7;216(8):2315-2327. doi: 10.1083/jcb.201610036. Epub 2017 Jun 29. PMID:28663346

M. Miranda, H. Christofk, **D. L. Jones** and W.E. Lowry. Topical Inhibition of the Electron Transport Chain Can Stimulate the Hair Cycle. 2018. *J. Investigative Derm.* Apr;138(4):968-972. doi: 10.1016/j.jid.2017.10.021. Epub 2017 Oct 26. PMID: 29106930

A.M. Salazar, M. Resnik-Docampo. M. Ulgerait, R. I. Clark, M. Shirasu-Hiza, **D. L. Jones**, and D. W Walker. 2018. Intestinal Snakeskin limits microbial dysbiosis during aging and promotes longevity. *iScience*. Nov 30; 9:229-243. doi: 10.1016/j.isci.2018.10.022. Epub 2018 Oct 24. PMID:30419503. PMCID: PMC6231084.

M. Loza-Coll, C.C. Petrossian, M. L. Boyle, and **D. L. Jones**. 2019. Heterochromatin Protein 1 (HP1) inhibits stem cell proliferation induced by ectopic activation of the Jak/STAT pathway in the *Drosophila* testis. Exp. Cell Res. 2019 Apr 15;377(1-2):1-9. doi: 10.1016/j.yexcr.2019.02.024. Epub 2019 Feb 25. PMCID:PMC6435284

R. Sênos Demarco, B.S. Uymeura, C. D'Alterio, and **D. L. Jones**. 2019. Mitochondrial fusion regulates lipid homeostasis and stem cell maintenance in the *Drosophila* testis. Nat. Cell Biol. **21(6)**: 710-720. doi: 10.1038/s41556-019-0332-3. Epub 2019 Jun 3.

R. Sênos Demarco, B. S. Uyemura and **D. L. Jone**s. 2020. EGFR signaling stimulates autophagy to regulate stem cell maintenance and tissue homeostasis in the *Drosophila* testis. Cell Reports. 30(4):1101-1116.e5. doi: 10.1016/j.celrep.2019.12.086. PMID: 31995752

S. Lewis, D. Nachun, M. Martin, S. Horvath, G. Coppola, and **D. L. Jones**. 2019. DNA methylation analysis reveals differences in aging between human small intestine and colon. Cellular and Molecular Gastroenterology and Hepatology. PMID: 31805439 PMCID: PMC7044532 DOI: 10.1016/j.jcmgh.2019.11.013

R. Sênos Demarco and **D. L. Jones.** 2019. Mitochondrial fission regulates germ cell differentiation by suppressing ROS-mediated activation of Epidermal Growth Factor Signaling in the *Drosophila* larval testis. Scientific Reports. Dec 23;9(1):19695. doi: 10.1038/s41598-019-55728-0. PMID: 31873089

R. Sênos Demarco, B. S. Uyemura and **D. L. Jone**s. 2020. EGFR signaling stimulates autophagy to regulate stem cell maintenance and tissue homeostasis in the *Drosophila* testis. Cell Reports. 30(4):1101-1116.e5. doi: 10.1016/j.celrep.2019.12.086. PMID: 31995752

M. Resnik Docampo, K. Cunningham, M. Ravulcaba, V. Sauer, C. Choi and **D. L. Jones**. 2021. Neuroglian regulates intestinal stem cell proliferation through enhanced signaling via the EGFR. *Stem Cell Reports*. Jun 8;16(6):1584-1597. PMCID: PMC8190597

R. Sênos Demarco, B. J. Stack, A.Tang, J. Voog, S. L. Sandall, A. D. Southall, A. H. Brand, and **D. L. Jones**. Escargot controls somatic stem cell maintenance through the attenuation of the Insulin Receptor pathway in the *Drosophila* testis. *Cell Reports*. 2022. PMCID: PMC9043617

R. D. Edgar, F. Perrone, A.R. Foster, F. Payne, S. Lewis, K.M. Nayak, J. Kraiczy, A. Cenier, F. Torrente, C. Salvestrini, R. Heuschkel, K.O. Hensel, R. Harris, **D. L. Jones**, D. R. Zerbino, and M. Zilbauer. Culture associated DNA methylation changes impact on cellular function of Human Intestinal Organoids. *Cell Mol Gastroenterol Hepatol.* 2022 Aug 28. PMID: 36038072. DOI: 10.1016/j.jcmgh.2022.08.008

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M. Clémot, C. D'Alterio, A. Kwang, **D. L. Jones**. mTORC1 activity in germline stem cells is critical for differentiation in the *Drosophila* testis. *In Revision for Plos Biology*. *.bioRxiv* https://doi.org/10.1101/2022.07.25.501357

R. A. Hodge, M. Ghannam, E. Edmond, F. de la Torre, M. Resnik-Docampo, Cecilia D'Alterio, N.H. Kaya, T. Reiff, and **D. L. Jones**. The septate junction component *Bark beetle* is required for *Drosophila* intestinal barrier function and homeostasis. *In Revision for iScience*. *bioxRiv* https://doi.org/10.1101/2022.11.07.515432

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C. D'Alterio, V. Sauer and **D. L. Jones**. Age-related changes in occluding junction proteins is not due to intestinal dysplasia. (In preparation).

Charles Choi and D. L. Jones. Role of Escargot in intestinal tissue aging and organismal lifespan. (In preparation).

Review Articles, Book Chapters

D.L. Jones and K. Münger. 1996. Interactions of human papillomavirus E7 protein with cell cycle regulators. Sem. Canc. Biol.: **7** (6) 327-337.

D. L. Jones. Stem Cells: So what's in a niche? 2001. Curr. Biol. 11: R484-R486.

D. L. Jones and M. T. Fuller. 2004.Stem cell niches. In Handbook of Stem Cells. Vol.2: Adult and Fetal Stem Cells (R.Lanza, H. Blau, D. Melton, M. Moore, E.D. Thomas, C. Verfaillie, I.Weissman, and M. West, eds.) Academic Press. pp 59-72.

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M. F. Clarke, J.E. Dick, P. B. Dirks, C. J. Eaves, C. H. M. Jamieson, **D.L. Jones**, J. Visvader, I. L. Weissman, and G. M. Wahl. 2006. Cancer Stem Cells- Perspectives on Current Status and Future Directions: AACR Workshop on Cancer Stem Cells. Cancer Research **66** (19): 9339-9344.

D. L. Jones. 2007. Aging and the germ line: where mortality and immortality meet. Stem Cell Reviews. **3(3)**:192-200.

D. L. Jones and A.J. Wagers. 2008. No place like home: anatomy and function of the stem cell niche. Nat. Rev. Mol. Cell Biol. **9**:11-21.

N. Geijsen and **D.L.Jones**. 2008. Seminal discoveries in regenerative medicine: contribution of the male germ line to understanding pluripotency. Human Mol. Genetics. **17:**16-22.

H. Toledano and **D.L. Jones**, Mechanisms regulating stem cell polarity and the specification of asymmetric divisions (March 31, 2009), StemBook, ed. The Stem Cell Research Community, StemBook, doi/10.3824/stembook.1.41.1, http://www.stembook.org

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J. Voog and **D.L. Jones**. 2010. Stem cells and the Niche: a dynamic duo. Cell Stem Cell **6**: 103-115.

L. Wang and **D.L. Jones**. 2010. The relationship between stem cells and aging in *Drosophila*. Experimental Gerontology. Oct 29. [Epub ahead of print].

H. Jasper and **D.L. Jones**. 2010. Metabolic regulation of stem cell behavior and implications for longevity. Cell Metabolism. **10**: 561-565.

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L. P. Resende and D.L. Jones. 2012. Local Signaling within stem cell niches: lesson from Drosophila. Curr. Op. in Cell Biol. Jan. 30. [Epub ahead of print].

R. Demarco, Å. Eikenes, K. Heglund, and D.L.Jones. Investigating spermatogenesis in Drosophila melanogaster. Methods. 2014 May 2. pii: S1046-2023(14)00180-7. doi: 10.1016/j.ymeth.2014.04.020. [Epub ahead of print]

K. Münger and D.L. Jones. 2015. HPV Carcinogenesis- An identity crisis in the Retinoblastoma Tumor Suppressor Pathway. J. Virol. 2015 Feb 11. pii: JVI.03486-14. [Epub ahead of print] PMID: 25673729.

H. Toledano and D.L. Jones. 2015. Male Germline Stem Cell Aging. In "Stem Cell Aging: Mechanisms, Consequences, Rejuvenation". (H. Jasper, H. Geiger Eds.) Springer Publishers. pp. 71-84.

M. Loza-Coll and D. L. Jones. Simultaneous control of stemness and differentiation by the transcription factor Escargot in adult stem cells: how can we tease them apart? 2016. Fly (Austin). Apr 2;10(2):53-9. Epub 2016 Apr 14. PMID: 27077690.

D.L. Jones and T.A. Rando. Stem Cell Aging. In "Molecular and Cellular Biology of Aging". (J. Vijg, J. Campisi, and G. Lithgow. Eds.) e-Book published online by the Gerontological Society of America: https://www.geron.org/online-store/gsaproducts/product/5-molecular-and-cellular-biology-of-aging.

M. Resnik-Docampo, Sauer V, Schinaman JM, Clark RI, Walker DW, Jones DL. Keeping it tight: The relationship between bacterial dysbiosis, septate junctions, and the intestinal barrier in Drosophila. Fly (Austin). 2018 Jan 2;12(1):34-40. doi: 10.1080/19336934.2018.1441651. Epub 2018 Mar 6.

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R. Sênos Demarco, M. Clémot, and D.L. Jones. The impact of ageing on lipid-mediated regulation of adult stem cell behavior and tissue homeostasis. Mech. Ageing Dev. 2020. doi: 10.1016/j.mad.2020.111278. Epub 2020 Jun 6. PMID: 32522455.

R. Sênos Demarco and D.L. Jones. Redox signaling as a modulator of germline stem cell behavior: Implications for regenerative medicine. Free Rad Biol and Medicine. 166:67-72. 2021. PMCID: PMC8021480.

T. Rando and D. L. Jones. Rejuvenation, Regeneration, Replacement: Strategies for addressing loss of stem cell function over time. Cold Spring Harb Perspect Biol .2021 Jun 29;a040907. doi: 10.1101/cshperspect.a040907.

D. Research Support

ACTIVE

1 R01 DK105442-01 NIH/NIDDK (Jones, PI) 04/30/2017-03/31/2023*

The role of epithelial junctions in maintenance of intestinal homeostasis The major goal of this project is to characterize age-related changes in tight junction components in the intestine of Drosophila melanogaster and to investigate the connection between loss of

barrier function and intestinal stem cell behavior. *NCE

R01 GM131094 (Jones, taken over for K. Brückner) NIH/NIGMS

08/01/2019 - 05/31/2023

Molecular mechanisms of a multi-tissue innate immune response The major goal of this project is to address fundamental principles of organismal innate immunity.

1 R01 GM135767-01A104/01/2020-03/31/2024NIH/NIGMS (Jones, PI)Lipid-mediated regulation of stem cell behavior and tissue homeostasisThe major goal of this project is to investigate the role of lipid metabolism and signaling in the
regulation of germline stem cell behavior.

PENDING

Regulation of Intestinal homeostasis by L1CAM/Neuroglian NIH/NIDDK (Jones, PI) The major goals of this proposal are to define the role of Drosophila Neuroglian and mammalian L1-CAM in intestinal homeostasis and to explore the mechanism(s) by which Nrg/L1-CAM potentiate signaling via the EGFR.

COMPLETED

JCCC Seed Grant Application\$50,000The role of L1CAM in the human intestine and intestinal diseaseThe major goal of this proposal is to begin to explore the role of mammalian L1CAM in human intestinal stem cells using 3D organoids as a model.

2R01 AG028092-05 NIH/NIA (Jones, PI) 09/30/2012-05/31/2020 \$171,000 (yearly direct)

Characterization of Age-Related Changes in Stem Cell Behavior The major goals of this project are to analyze changes in stem cell behavior during the aging process and to identify molecular mechanisms regulating these changes. We will also invest

process and to identify molecular mechanisms regulating these changes. We will also investigate the relationship between pathways regulating longevity and age-related changes to stem cells and the stem cell niche.

Role: PI

BSCRC, DGSOM Regeneration Theme Innovation Award 08/01/2017-03/31/2019 (Jones, PI) \$100,000 The major goal of this project is to compare aging of the human small intestine and colon using DNA methylation as a biomarker.

 1R01 AG040288-01A1
 05/01/2012-04/30/2019

 NIH/NIA (Jones, PI)
 \$180,000 (yearly direct)

 Metabolic regulation of stem cell behavior and longevity
 The major goal of this project is to elucidate the mechanisms underlying metabolic regulation of stem cell behavior and lifespan.

 Role: Co-PI
 Co-PI

1 R21 AG048609-01A108/01/2016-07/31/2018NIH/NIA (Jones, PI)\$150,000New tools for investigating mitochondrial dynamics in stem cells during agingThe major goal of this project is to develop novel tools and imaging techniques to investigate therole of mitochondrial dynamics on stem cell maintenance and function over time.

Glenn Foundation For Medical Research (PI-Jones)08/01/2015 - 07/31/2017Age-related changes to stem cells and the stem cell nicheThis award provides unrestricted funds to support general research costs in the lab.

CURE:DDRC DK P30 41301 Pilot and Feasibility Award (PI-Jones) 04/01/2016-03/31/2017 Characterizing the role of Tricellulin in intestinal disease

This project is focused on examining the role of the tricellular tight junction (tTJ) protein, Tricellulin, in regulating human intestinal stem cell behavior.

BSCRC Innovation Award (Jones, PI)

Age-related loss of barrier function as a driver of intestinal disease

The major goal of this project is to examine age-related changes in tight junction components in human intestinal epithelium.

New Faculty RN1-00544-1 (Jones, PI)

California Institute for Regenerative Medicine

Characterization of mechanisms regulating de-differentiation and the re-acquisition of stem cell identity

The major goal of this project is to identify and characterize the factors that are involved in regulating de-differentiation of progenitor cells and the acquisition of self-renewal. [This grant includes an extended, unfunded, one-year period.] Role: PI

5 R01 AG031152-04 (Tatar, PI)

NIH/NIA

Mechanisms of Aging Regulation by Drosophila Germline

The major goal of this project is to determine the cellular and molecular basis for how reproduction and the germline modulate aging in Drosophila.

Role: Co-Investigator

RSG-07-295-01-DDC (Jones, PI)

American Cancer Society

Genetic analysis of cancer stem cell-niche cell interactions

The major goals of this project are to characterize the initiation and progression of Upd-induced testis tumors, to identify the factors involved in regulating somatic cell proliferation and identity, and to determine whether ectopic niche formation is required for tumor maintenance. Role: PI

3 R01 AG028092-03S1 (Jones, PI) NIH/NIA

Characterization of Age-related Changes in Stem Cell Behavior

The major goals of this project are to analyze changes in stem cell behavior during the aging process and to identify molecular mechanisms regulating these changes. We will also investigate the relationship between pathways regulating longevity and age-related changes to stem cells and the stem cell niche. [ARRA funding/equipment.] Role: PI

AG-NS-0301-05 (Jones, PI)

The Ellison Medical Foundation

Control of Germline Stem Cell Behavior during Aging

The major goal of this project is to investigate the relationship between loss of tissue homeostasis and changes in stem cell behavior during the aging process using the Drosophila gonad as a model system--to identify mechanisms utilized to maintain stem cells during aging, and to identify signaling pathways involved in modifying stem cell behavior during aging. Role: PI

07/01/2007-06/30/2012

08/01/2005-07/31/2009

09/01/2008-07/31/2013

09/15/2009-08/31/2010

04/01/2008-03/31/2014

08/01/2014 - 12/31/2016

Research Grant A06075 (Jones, PI) 07/01/2006-06/30/2008 American Federation for Aging Research Identification of factors regulating aging of the stem cell niche The major goal of this project is to characterize changes in gene expression in niche cells during organismal aging. Role: PI

1 K18 DK073799-01 (Jones, PI) NIH/NIDDK 09/01/2006-08/31/2007

A Stem Cell Niche to Support Proliferation and Maintenance of Human Germ Cells The major goals of this project are to define conditions that promote germ cell formation from ESCs and to create a stem cell niche in vitro that supports self-renewal and maintenance of human germ cells. Role: PI

Invited Presentations:

Meetings

Aging-related changes to stem cells and the stem cell niche. Southern California Drosophila Meeting, September 2005. Irvine, CA.

Interactions between Stem cells and the Stem Cell Niche. AACR Special Workshop on Cancer Stem Cells. February 2006. Lansdowne, VA.

Aging-related changes to stem cells and the stem cell niche. ASCB "Stem cell niches" meeting. July 2006. Boston, MA.

The Role of the Stem cell niche in regulating stem cell behavior. La Jolla Consortium for Regenerative Medicine. Stem Cell Meeting on the Mesa. October 2006. La Jolla, CA.

The Role of the Stem cell niche in regulating stem cell behavior. Joint MRC-CIRM meeting. November 2006. Broadway, England.

Aging-related changes to stem cells and the stem cell niche. International Titisee Conference. "Molecular basis of aging", April 2007. Titisee, Germany.

Aging-related changes to stem cells and the stem cell niche. "Second International Conference on Cell Therapy and Regenerative Medicine", April 2007. Granada, Spain.

Aging-related changes to stem cells and the stem cell niche. Biology of Human Aging Colloquium, Brown University, May 2007. Providence, R.I.

Aging-related changes to stem cells and the stem cell niche. ASCB Annual Meeting- Cochair of Stem Cell Niches Minisymposium, December 2007. Washington D.C.

Aging-related changes to stem cells and the stem cell niche. "Stem Cells and Tumor Suppressors." Keystone Symposium, March, 2008. Vancouver, Canada.

Aging-related changes to stem cells and the stem cell niche. "Development and Cancer." Keystone Symposium, March, 2008. Steamboat Springs, CO.

Aging-related changes to stem cells and the stem cell niche. Annual San Diego Cell Biology Meeting. April, 2008. La Jolla, CA.

Aging-related changes to stem cells and the stem cell niche. Understanding aging: biomedical and bioengineering approaches". UCLA. June, 2008. Los Angeles, CA.

Stem cell-niche cell interactions during tumorigenesis. Cancer Models and Mechanisms. Gordon Research Conference. Bryant University. RI, USA. July 2008.

The role of InR signaling in regulating stem cell behavior. Gordon Conference on Aging, Ventura, CA. February, 2009.

Mechanisms regulating size and maintenance of a stem cell niche. Abcam "Molecular Mechanisms of Aging and Age-Related Diseases". Puerto Vallarta, Mexico. March, 2009.

Models for stem cell-niche cell interactions during tumorigenesis. Keystone Symposium. Extrinsic Control of Tumor Genesis and Progression, Vancouver, B.C., March 2009.

Symposium on Molecular Mechanisms of Adult Stem Cell Aging, Ulm University,

Reisensburg, Germany. May 2009.

Glenn Foundation Annual Symposium on Aging. Harvard University. Boston, MA. June 7, 2009.

NIH/NIA Workshop on the "Epigenetics of Aging". Santa Barbara, CA. Sept. 2009.

Keynote Speaker, UCLA Molecular Biology Institute's Annual Retreat, Lake Arrowhead, CA. Oct. 2009.

Mechansims regulating size and maintenance of a stem cell niche. Abcam "Stem Cells" meeting. Antigua. November 2009.

Keystone Symposium. New Insights into Healthspan and Diseases of Aging: From Molecular to Functional Senescence. Tahoe City, CA. January 2010.

Nature's Miami Winter Symposium "Targeting Cancer Invasion and Metastasis". Miami Beach, Florida, February 2010.

Glenn Foundation Workshop on the Biology of Aging, Santa Barbara, CA, June 2010.

ISSCR Annual Meeting, "Stem cell regulation by miRNAs". Concurrent session co-chair and speaker. San Francisco, CA. June, 2010.

4th Symposium " Signaling Pathways in Stem Cell Biology" in Ulm, Germany, October, 2010.

Cell Press, Massachusetts General Hospital and Fondation IPSEN meeting on "Biology of Recognition", Singapore, October 2010. Canceled attendance.

Annual meeting of the Longevity Consortium. Keynote Speaker. New Orleans, LA. November 17-19, 2010.

Indo-US bilateral symposium on 'Aging and Age-related diseases'. New Delhi, India. March, 2011.

52nd Annual *Drosophila* Research Conference, GSA, "Aging and physiology" Concurrent session co-chair. San Diego, CA. March, 2011.

Serono Symposia, "Reproductive ageing - a basic and clinical update" Taormina (Messina), Italy, April, 2011.

Symposium on Molecular Mechanisms of Adult stem cell aging. Ulm, Germany. May, 2011.

AFAR Annual Grantee's Meeting. Keynote Speaker. Santa Barbara, CA. June, 2011. Glenn Workshop on Stem Cell Aging. Santa Barbara, CA. June 2011.

51st Annual ASCB meeting. "Stem cells and pluripotency" Mini-symposium Co-Chair. Denver, CO. December, 2011.

7th Annual Meeting of the European Federation for Systematic Stem Cell Research. Slovenia. January, 2012.

Buck Institute for Aging Research. "Adult stem cell aging". Novato, CA. Feb. 2012. Experimental Biology 2012. Symposium on Liver and Intestinal Aging. San Diego, CA. April, 2012.

Born After ART: from the laboratory towards the delivery room". Serano Symposium. Kos, Greece. June, 2012.

Neurobiology of Aging Conference. Bregenz, Austria. July, 2012.

Santa Cruz Developmental Biology Meeting. Santa Cruz, CA. August, 2012.

Arolla Conference on Developmental Systems. Switzerland. August, 2012.

IUBMB & FEBS CONGRESS, Seville, Spain. September 2012

Mount Desert Island Biological Laboratory /JAX Annual Symposium Keynote Speaker, Mt. Desert Island, Maine. September, 2012.

65TH Annual Meeting of the Gerontological Society of America. Symposia speaker. San Diego, CA. November, 2012.

Gordon Research Conference. Insulin-Like Growth Factors in Physiology and Disease. March, 2013. Ventura, CA

54th Annual *Drosophila* Research Conference, GSA, Plenary speaker. Washington, D.C. April, 2013.

Third V. Else Kröner-Fresenius Symposium on Adult Stem Cells in Aging, Diseases and Cancer, Ulm, Germany. May, 2013. Invited Lecturer, Molecular Biology of Aging Course, Woods Hole, MA. July, 2013. Keynote Speaker, Gordon Research Conference. Biology of Aging. Lucca (Barga), Italy. August, 2013. Session Chair, Gordon Research Conference. Biology of Aging. Lucca (Barga), Italy. August, 2013. Invited Lecturer, Spetsai Summer School "Development, Disease, Aging and Regeneration", Spetsai, Greece. September, 2013. "Stem Cells", Les Treilles, Provence, France. October, 2014. "Biology of Size", Cell Press and Fondation IPSEN, La Jolla, CA, October 2014. Keynote Speaker, Cell Press Symposium "Stem Cell Energetics", Berkeley, CA. December, 2014. (Declined) "Stem cells and Cancer", Gordon Research Conference, Ventura, CA. February, 2015. The Biology of Regenerative Medicines. Wellcome Trust Scientific Conferences. Hinxston, Cambridge, UK. April, 2015. Keystone Symposium, "MicroRNAs and Noncoding RNAs in Cancer", Keystone, Colorado. June, 2015. (Declined) Fourth V. Else Kröner-Fresenius Symposium on Adult Stem Cells in Aging, Diseases and Cancer, Erice, Italy. May, 2015. "Comparative Biology of Tissue Repair, Regeneration and Aging", Mount Desert Island Biological Laboratory, Mt Desert Island, ME. June, 2015. Arolla Conference on Developmental Systems. Arolla, Switzerland. August, 2015. Keystone Symposium, "Epigenetic and Metabolic Regulation of Aging and Aging-Related Diseases", Santa Fe, NM. May 2016. "Plasticity of Cellular Identity", Les Treilles, Provence, France. May, 2016. Stem Cell Niches Symposium, Karolinska Institute. Stockholm, Sweden. September 2016. "Stem cells and Cancer", Gordon Research Conference, Lucca (Barga), Italy. February, 2017. Metabolism and Senescence Symposium. Harvard Medical School. Boston, MA. March, 2017. First Annual La Jolla Aging Meeting. Salk Institute for Biological Studies. La Jolla, CA. April, 2017. 15th Annual ISSCR meeting, Plenary Session on Aging, Stress, and Senescence. Boston, Mass., June 2017 International Society for Developmental Biology, Singapore. June 2017. Stem Cell Niches Symposium, Karolinska Institute. Stockholm, Sweden. September 2017. Gordon Research Seminar/Conference, Tissue Niches and Resident Stem Cells in Adult Epithelia, September 2018. Discussion leader for GRS; Speaker and Discussion leader for GRC. Cold Spring Harbor Symposium on the Biology of Aging, October 2018 Fusion Conference - Mitochondria-From Basic Biology to Mechanisms of Disease; Nassau, Bahamas. February, 2019 "Stem cells and Cancer", Gordon Research Conference, Ventura, CA. March, 2019. American Aging Association. 48th Annual Meeting, San Francisco, CA, USA. May 2019. Digestive Disease Week. American Gastroenterological Association (AGA) Meeting. San Diego, CA. USA. May 2019. 17th Annual ISSCR meeting, Session Chair, Tissue Regeneration and Homeostasis. Los Angeles, CA, USA., June 2019 Keynote speaker, "Mitochondria in Complex Diseases", NY Academy of Sciences, Virtual, April 2020 Invited speaker, 2020 Keystone Symposia on Tissue Plasticity: Preservation and Alteration of Cellular Identity, Virtual. October, 2020.

Keynote speaker, 2020 Loma Linda University- Inland Empire Stem Cell Consortium Annual Symposium. *Virtual*. October, 2020

Invited speaker, Cell Bio Virtual 2020, Joint ASCB/EMBO Meeting. Symposium on Collective Cell Behavior

Invited speaker, "Intestinal Permeability: Cause and Effect", -Digestive Disease Week. American Gastroenterological Association (AGA) Meeting, Chicago, IL, USA, May 2021

Invited Lecturer, Spetsai Summer School "Development, Disease, Aging and Regeneration", Spetsai, Greece. September, 2021

Organizer, Fusion Conference - Intestinal stem cell-niche Interactions in Development and Disease; Cancun, Mexico. May, 2022

Concurrent Session Chair/Speaker- Principles of Tissue and Organ Regeneration, 20th Annual ISSCR meeting, San Francisco, CA. June, 2022

Invited Speaker, Session Co-Chair, Cold Spring Harbor Symposium on the Biology of Aging, October 2022

Pending

-Vice Chair, "Stem cells and Cancer", Gordon Research Conference, Lucca (Barga), Italy. May, 2023.

-Speaker, Fusion Conference - Spermatogenesis Conference; Dubrovnik, Croatia. October, 2023 -Speaker, Fusion Conference- Biology of Aging; Dubrovnik, Croatia. October, 2023

-Session Chair, "Stem cells, homeostasis, and aging", Annual meeting of the Gerontological Society of America; Tampa, FL, November 2023.

-Speaker, EMBO Workshop Aging vs Plasticity: How Cells Choose to Senesce or Rejuvenate; Sant Feliu de Guíxols, Spain April, 2024.

-Organizer, Fusion Conference - Intestinal stem cell-niche Interactions in Development and Disease; Cancun, Mexico. May, 2024

Seminars

Regulation of Stem Cell Behavior During Aging and Tumorigenesis. Southern California Stem Cell Consortium, September 2006. La Jolla, CA.

Stem cell-Niche cell interactions in normal, diseased, and aging tissues. Institut de Recherche en immunologie et en cancérologie. Université de Montréal. October 2006. Montréal, Canada.

Aging-related changes to stem cells and the stem cell niche. Institute for Stem Cell Biology and Medicine and Jonsson Comprehensive Cancer Center, UCLA. January 2007. Los Angeles, CA.

Aging-related changes to stem cells and the stem cell niche. Department of Cellular and Molecular Medicine, Univ. of California- San Diego, May 2007. La Jolla, CA.

Aging-related changes to stem cells and the stem cell niche. Department of Genetics, Harvard Medical School. September 2007. Boston, MA.

Aging-related changes to stem cells and the stem cell niche. Department of Biology, Univ. of Rochester, November, 2007. Rochester, NY.

Aging-related changes to stem cells and the stem cell niche. Department of Pharmacology, Univ. of Wisconsin School of Medicine and Public Health, November, 2007. Madison, WI.

Aging-related changes to stem cells and the stem cell niche. Department of Cell Biology, Univ. of Texas, Southwestern, January, 2008. Dallas, TX.

Aging-related changes to stem cells and the stem cell niche. Department of Bioengineering. Univ. of California- Berkeley, March 2008. Berkeley, CA.

Aging-related changes to stem cells and the stem cell niche. Buck Institute for Aging Research. March 2008. Novato, CA.

Aging-related changes to stem cells and the stem cell niche. Department of Cell Biology, Univ. of Georgia-Athens, April 2008. Athens, GA.

Aging-related changes to stem cells and the stem cell niche. Dept of Cellular and Physiological Sciences, University of British Columbia. March, 2009. Vancouver, British Columbia.

Mechanisms regulating maintenance of the stem cell niche. Cold Spring Harbor "Stem Cells" meeting. September, 2009. Cold Spring Harbor, NY.

Aging-related changes to stem cells and the stem cell niche. Molecular and Computational Biology. University of Southern California. October, 2009. Los Angeles, CA.

Mechanisms regulating size and maintenance of a stem cell niche. Department of Developmental Biology, Washington University. January, 2010. St. Louis, MO.

Mechanisms regulating size and maintenance of a stem cell niche. Stem Cell Institute. University of Minnesota. January, 2010. Minneapolis, MN.

Mechanisms regulating size and maintenance of a stem cell niche. Fred Hutchinson Cancer Center, University of Washington, April, 2010. Seattle, WA.

Aging-related changes to stem cells and the stem cell niche. Featured speaker for the NIA Advisory Council in Bethesda, MD. May, 2010.

Aging-related changes to stem cells and the stem cell niche. Harvard Stem Cell Institute, Harvard University, Boston MA. November, 2010. (postponed)

Aging-related changes to stem cells and the stem cell niche. Keck School of Medicine. Univ. of Southern California, Los Angeles, CA. January, 2011.

Aging-related changes to stem cells and the stem cell niche. Frontiers in Biology seminar series. Stanford University, Stanford, CA. May, 2011.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Univ. of California-Riverside, Riverside, CA. October, 2011.

Aging-related changes to stem cells and the stem cell niche. Univ. of California-Davis, Davis, CA. October, 2011.

Aging-related changes to stem cells and the stem cell niche. Dept. of Biological and Biomedical Sciences, Yale University, New Haven, CT. November, 2011.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Univ. of California-Santa Barbara, Santa Barbara, CA. January, 2012.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Maintenance and Differentiation of Stem Cells in Development and Disease. Univ. of Heidelberg, Heidelberg, Germany. January, 2012.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Stanford University, Department of Biology, March 2013.

Strategies for characterizing and countering stem cell aging. University of Wisconsin-Madison, October, 2013.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Univ of Colorado- Denver, November, 2013.

Age-related changes to stem cells and the niche. Department of Developmental and Stem Cell Biology, Institut Pasteur at Paris, France. October, 2014.

Mechanisms regulating maintenance of stem cells and the stem cell niche. Frontiers in Aging Seminar Series, Glenn Center for the Biology of Aging at Stanford. March 2016.

The Snail family in Intestinal Homeostasis. Thursday Seminar Series, Jonnson Comprehensive Cancer Center. April, 2016.

Regulatory Networks in Health and Disease Seminar Series. Duke University School of Medicine. Durham, NC. November 2016

Interdisciplinary Biological Science (IBiS) PhD Program at Northwestern University, November, 2018

"Understanding the role of occluding junctions in intestinal homeostasis and aging", Department of Biological Sciences, Notre Dame University, April 2019

"Understanding the role of occluding junctions in intestinal homeostasis and aging", Johns Hopkins Bloomberg School of Public Health, Department of Biochemistry and Molecular Biology, April 2022.

Univ. College London, Cell and Developmental Biology Seminar Series. June 2022 -

Pending:

-Department of Obstetrics and Gynecology, Reproductive Aging Program, Columbia Univ. April 2024