Curriculum Vitae

Janis Shampay, PhD

Biology Dept., Reed College
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Education and Training

1987-1990	Postdoctoral Fellow, UC San Francisco, San Francisco, CA Positional cloning; mammalian telomere cloning (David R. Cox, advisor)
1981-1987	Ph.D., Molecular Biology, Univ. of California, Berkeley, CA Yeast telomere replication and recognition (Elizabeth H. Blackburn, advisor)
1977-1981	B.A., Biochemistry and Molecular Biology, Northwestern Univ., Evanston, IL Yeast DNA replication mutants (Lawrence B. Dumas, advisor)

Academic Appointments

2016	Howard Vollum Professor, Reed College
2006	Professor, Reed College
1996	Associate Professor, Reed College
1992	Assistant Professor, Reed College
1990	Visiting Assistant Professor, Reed College

Honors, Fellowships, and Research Support

2017-2018	Sabbatical Fellowship Award, Reed College
2011-2012	Sabbatical Fellowship Award, Reed College
2007-2010	National Science Foundation 0642104 RUI: "Telomere Function and Dysfunction in Vivo," $344,000
2004-2007	National Science Foundation 0343573 RUI: "Telomere Function and Dysfunction in Vivo," $320,000
2004-2005	Reed College Dean's Office Paid Leave Award

2000-2004	MJ Murdock Charitable Trust College Research Program "Telomere length regulation in *Xenopus laevis*," $47,000
1999	Reed College Howard Hughes Faculty Development Fund "Isolation of *Xenopus* telomerase reverse transcriptase gene," $7,921
1995	Reed College Dean's Office, Vollum Junior Sabbatical Award
1993-1994	Medical Research Foundation "Telomere Length Variation and Regulation," $16,072
1992-1993	Reed College Howard Hughes Faculty Development Fund "Characterization of Novel Telomere-Adjacent Sequences," $22,058
1989-1990	American Cancer Society Postdoctoral Fellow
1982-1984	Graduate Opportunity Fellowship, UC Berkeley
1981	Phi Beta Kappa, Alpha of Illinois; Department Honors; Northwestern Univ.

Publications * Reed College student author

McIlroy P*, Constant D*, and Shampay J. PinX1 is not a telomerase inhibitor but a PCR inhibitor. *In preparation*.

Shampay, J. 2010. How do the ends replicate? Trends Biochem. Sci. 35: 5-7 avail. online 11 Dec. 2009, http://dx.doi.org/10.1016/j.tibs.2009.11.002

*Crumet N, *Carlson RL, *Drutman SB, and Shampay J. 2006. A truncated acidic domain in *Xenopus* TRF1. Gene 369: 20-26 [Epub Nov 23, 2005] http://dx.doi.org/10.1016/j.gene.2005.10.006

*Bousman, S, *Schneider, G, and Shampay J. 2003. Telomerase activity is widespread in adult somatic tissues of *Xenopus*. J. Exp. Zool. (Mol. Dev. Evol.) 295B(1): 82-86. http://www3.interscience.wiley.com/journal/102526630/abstract

*Bassham, S, *Beam, A, and Shampay, J. 1998. Telomere variation in *Xenopus laevis*. Mol. Cell. Biol. 18(1): 269-275. http://mcb.asm.org/cgi/content/full/18/1/269?view=full&pmid=9418874

Shampay, J, *Schmitt, M, and Bassham, S. 1995. A novel minisatellite at a cloned hamster telomere. Chromosoma 104: 29-38.

Shampay, J, and Blackburn, EH. 1989. *Tetrahymena* micronuclear sequences that function as telomeres in yeast. Nucl. Acids Res. 17(8): 3247-3260.

Blackburn, EH, Greider, CW, Henderson, E, Lee, MS, Shampay, J, and Shippen-Lentz, D. 1989. Recognition and elongation of telomeres by telomerase. Genome 31(2), 553-560.

Henderson, E, Larson, D, Melton, W, Shampay, J, Spangler, E, Greider, C, Ryan, T, and Blackburn, E. 1988. Structure, synthesis, and regulation of telomeres. Cancer Cells 6: Eukaryotic DNA Replication, Cold Spring Harbor Laboratory, 453-461.

Shampay, J, and Blackburn, EH. 1988. Generation of telomere length heterogeneity in *Saccharomyces cerevisiae*. PNAS 85, 534-538.

Shampay, J, Szostak, JW, and Blackburn, EH. 1984. DNA sequences of telomeres maintained in yeast. Nature 310: 154-157. doi:10.1038/310154a0
http://www.nature.com/nature/journal/v310/n5973/pdf/310154a0.pdf

Dumas, LB, Lussky, JP, McFarland, EJ, and Shampay, J. 1982. New temperature-sensitive mutants of *Saccharomyces cerevisiae* affecting DNA replication. Mol. Gen. Genet. 187: 42-46.

Other media

Shampay, J. 2023. A DNA success story. Genealogical Forum of Oregon: The Forum Insider, Vol 34, #8, May 2023, pp 5-6.

Conference presentations

Shampay J, *Constant DA, *Gaubatz JT, *Fink PB, *Bazilevsky G, *Cylinder I, *Pires J. Reciprocal telomerase inhibition by human and *Xenopus* PINX1. ASBMB annual meeting, April 2012 (abstract accepted).

*Constant DA, *Gaubatz JT, *Fink P, *King MM, *Mayer SE, Amoruso M, Shampay J. Conservation of telomerase inhibition by *Xenopus* PinX1. Amer. Assoc. for Cancer Res., Telomeres and Telomerase, Feb. 2010 (poster).

Shampay J, Amoruso M, Zyvan K, *Schwartzman J, *Jin J, *Gaubatz J, *Constant D. Similarity and divergence in *Xenopus* shelterin function. Keystone Telomeres and DNA Repair, Oct. 2009 Queensland, poster abstract accepted.

*Jin E, Amoruso M, Shampay J. Are telomere protein interactions conserved between humans and *Xenopus?* Oregon Academy of Sciences 2009 annual meeting (poster).

*Crumet N, *Carlson RL, *Drutman SB, and Shampay J. A truncated acidic domain in *Xenopus* TRF1. Cold Spring Harbor Laboratory Telomeres and Telomerase, May 2005 (poster).

*Lessner J, *Hummasti S, and Shampay J. Complex telomere length dynamics in the presence of ubiquitous *Xenopus* telomerase. Amer. Assoc. for Cancer Res., The Role of Telomeres and Telomerase in Cancer, Dec. 2002 (poster).

S. Bousman*, G. Schneider*, and J. Shampay. Telomerase activity is widespread in adult somatic tissues of *Xenopus*. Cold Spring Harbor Telomeres and Telomerase, March 2001 (poster).

J. Shampay, T. Wisner, M. Nabavi, and R. Press. Telomerase in Myb-induced tumors and cultured cells. Cold Spring Harbor Telomeres and Telomerase, March 1999 (poster).

Bassham S*, Beam A*, and Shampay J. Highly polymorphic telomeres of *Xenopus laevis*. Gordon Conference: Plasmid and Chromosome Dynamics, Plymouth, NH, July 1995 (poster).

Hines WA* and Shampay J. The protein/DNA structure of rat and mouse telomeres. Natl. Conf. on Undergraduate Research, Kalamazoo, MI, April 1994 (poster). *Session chair*.

Recent invited seminars

"Regulation of telomerase" March 18, 2020, Biology Department, Lewis and Clark College *(canceled due to COVID)*
"Regulation of telomerase" Sept. 27, 2019, Biology Dept., Reed College
"PinX1 v. Telomerase: No End to the Debate" Oct. 26, 2012, Biology Dept., Reed College
"Frog Telomeres: not the end of the story"
Portland State University Jan. 2008
Oregon Health Sciences University April 2007
Reed College Biology Dept. April 2006
"Telomerase in Myb-induced tumors," Biology Dept., Reed College, Jan. 1999
"Telomere dynamics in vertebrates," Dept. of Molecular and Medical Genetics, OHSU 8 April 1998

Recent Senior Theses Advised (2010 –)

How long are they really? An investigation into the telomere length of *Xenopus laevis* with nanopore sequencing / Nicholas Landman
Flipping the Script: Divergent transcriptional in the hTERT promoter / Hart Monyatovsky
Characterizing the *Xenopus laevis* xTERT Proximal Promoter / Savannah K. McBride
Telomerase in *Xenopus laevis*: Half-Life and TERT Expression / Claire Milander-Mashlan
Telomerase Activity in *Xenopus* Cultures Subjected to DNA Damage Treatments / Shawn Owens
An Investigation of a Truncated *Xenopus laevis* TRF2 / Julia Yuan
PinX1 Telomerase Inhibitory Domain Secondary Structure / Theodosia K. Bartasevich
Investigating xPinX1 Inhibition of DNA Polymerases / Peter R. McIlroy
Construction of an epitope-tagged *Xenopus laevis* TIN2 clone / Krishna Anand
Telomerase expression in dividing and quiescent *Xenopus* cultures / Kerry Jones
Investigating the potential cross-species inhibition of telomerase by PinX1 / Claudia V. Bosch
Telomerase inhibition: hPinX1 or buffer /Evan Welch
Telomere length variation in *Xenopus laevis* tissues / Michaela Adams
Towards a robust telomerase assay / Michael Jacobson
Cross-species inhibition of telomerase by PinX1 / Ajit Elhance
Characterization of *Xenopus* TRF1 and TRF2 interaction to TIN2 / Philippe Lior-Liechtenstein
Structural characteristics of the PinX1 telomerase inhibitory domain / Richard Posert
Is there interaction between xPinx1 and xTERT in the *Xenopus laevis* shelterin complex? / James Emiliano Reed
Relative expression of the *Saccharomyces cerevisiae* acetyltransferase genes ATF1 and ATF2 predict the profile of select acetate esters in fermented products / Sarah J. Resnick
Characterization of *Xenopus laevis* Shelterin Complex: Interaction of TRF1 and PinX1 / Smith Freeman
Characterization of Telomerase Products in *Xenopus laevis* Tissue Extracts / Erin Sheffels
Pot1, Tpp1, and telomerase in *Xenopus laevis* / Joshua Urrutia

Inhibition of Telomerase and the PCR by 3xPinX1 / Nicole Valentine
PinX1 inhibition of telomerase and PCR / Alec Friedrich Condon
In vivo Interaction of the *Xenopus laevis* proteins xTRF1 and xPinX1 / Genevra Marie Kuziel
Investigating the shelterin complex in *Xenopus laevis*: TRF1 and PinX1 interaction in an *in vivo* model / Bazilevsky, Gleb
Subcellular localization of *Xenopus laevis* TRF1 in interphase A6 cells / Jacqueline Monteiro Pires
Characterizing the interaction between *Xenopus laevis* TRF2 and TIN2 / Jeffrey Hunter
Inhibition of telomerase by *Xenopus laevis* partial xPinX1 proteins / Isabel Phoebe Cylinder
The effect of PinX1 fusion protein on telomerase activity of *Xenopus laevis in vitro* / Giancarlo Bruni
Telomeric localization of shelterin protein xTRF1 in somatic *Xenopus laevis* cells / Sophie Mayer
The relation of xTERT transcript abundance to relative telomerase activity in adult *Xenopus laevis* tissues / Ella Stern
Recombinant Partial *Xenopus laevis* PinX1 Proteins for Telomere Research / Patrick Bartlett Fink

Courses taught

Bio356 Gene Regulation (lecture-laboratory)
Bio431 Telomeres and Telomerase (advanced seminar course)
Bio256 Human Genetics (lecture-conference)
Bio101 Topics in Biology (team-taught introductory course)

Recent Service at Reed College

2022-2023	Admissions and Financial Aid Committee
2020-2023	Chair, Physical Plant Committee
2020-2023	Assistant Chair, Biology Department
2020-2023	Biochemistry and Molecular Biology committee *(Chair, 2021-22)*
2021-2023	President, Phi Beta Kappa, Beta of Oregon
2020-2021	Secretary, Phi Beta Kappa, Beta of Oregon
2022, 2023	Commencement Marshall
2018, 2019	Marshall, Convocation
2018-2020	Chair, Biology Department
2018-2020	Physical Plant Committee
2016-2017	Community Affairs Committee; Ad hoc Committee on the Community Constitution
2016-2017	Chair, Division of Mathematics and Natural Sciences
2016-2017	Genetics visitor search committee
2014-2016	Committee for Academic Planning and Policy *(Chair, fall 2015)*
2014-2016	Biochemistry and Molecular Biology committee
2014-2015	Computational Biology search committee
2013-2014	Secretary, Division of Mathematics and Natural Sciences
2013-2014	Secretary, Phi Beta Kappa, Beta of Oregon
2014-2016	President, Phi Beta Kappa, Beta of Oregon
2013-2015	Strategic Priorities Committee; Working group B
2012-2014	Community Affairs Committee *(Chair, 2014)*
2012-2013	Biology, Chemistry Search committees
2010-2011	Ad Hoc Committee on Faculty Compensation, Recruitment, and Retention
2010-2011	Chair, Genetics Search committee

2009-2010 Paid Leave Award Committee
2009-2010 Chemistry Search committee
2009-2010 Physics Search committee
2006-2010 Chair, Institutional BioSafety Committee
2006-2008 Chair, Biology Department
2002-2023 Pre-medical Advisor

Other Professional Activities

Paideia course: Where are you from? Direct-to-Consumer DNA testing, January 2021
External reviewer for multiple tenure or advancement decisions
Test development committee, GRE Biochemistry, Cell and Molecular Biology, 2013-2017
NSF grant review panel, 2007, 2008
Ad hoc NSF grant reviews
Ad hoc manuscript reviewer for
• AIMS Genetics • Gene • Transgenic Research • FASEB Journal
Contributor to Russell et al. Biology: the Dynamic Science
Reed Alumni College lecture: "The End is Near: Telomeres, Aging, and Cancer," June 2001
HHMI Outreach participant, fall 1997, fall 2000, fall 2003
ACAD panel: Faculty for the Future, Jan. 1997
OHSU Cell Biology retreat: panel on college teaching, Sept. 1997
Accuracy reviewer for Russell's Genetics, 5th Ed., Addison Wesley Longman, Inc. 1997
Oregon Brainstorms Partnership Summer 97 Institute (outreach with middle school teachers)
Seattle alumni panel: Ethics and Biotechnology, Nov. 1996
Instructor, HHMI Summer Science Program, 1996
Textbook review for Genes and Genomes, vol II, University Science Books. 1994

Professional societies

American Association for the Advancement of Science