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EDUCATION

- 2015 **Ph.D.** in Genetics,
Yale University, New Haven, CT
- 2009 **B.S.** in Biological Sciences, Minor in Technical Writing
Carnegie Mellon University, Pittsburgh, PA

RESEARCH EXPERIENCE

- 2020 – Present **Research Fellow**,
National Institute of Environmental Health Sciences (NIEHS)
Non-coding RNA mediated RNA modifications
Advisor: Traci M.T. Hall, Ph.D.
- 2015 – 2020 **Intramural Research Training Award Postdoctoral Fellow**,
National Institute of Environmental Health Sciences (NIEHS)
Post-transcriptional RNA Regulation
Advisor: Traci M.T. Hall, Ph.D.
- 2010 – 2015 **Graduate Student**, Yale University
Ribosome Assembly in Yeast and Humans
Advisor: Susan Baserga, M.D., Ph.D.
- 2008 – 2009 **Beckman Scholar**, Carnegie Mellon University
Alternative Splicing in the Brain
Advisor: A. Javier Lopez, Ph.D.
- 2007 – 2008 **Undergraduate Research Associate**, Carnegie Mellon University
In Vitro Splicing Assay Development
Advisor: A. Javier Lopez, Ph.D.

PUBLICATIONS

1. **McCann, K.L.**, Kavari, S.L., Burkholder, A.B., Phillips, B.T., Tanaka Hall, T.M., H/ACA snoRNA levels are regulated during stem cell differentiation. *Nucleic Acids Research*. (2020) 15: 8686-8703. PMID: 32710630.
2. *Bhat, V.D., ***McCann, K.L.**, Wang, Y., Fonseca, D.R., Shukla, T., Alexander, J.C., Qiu, C., Wickens, M., Lo, T.W., Tanaka Hall, T. M., Campbell, Z.T. Engineering a conserved RNA regulatory protein repurposes its biological function *in vivo*. *Elife*. (2019) 8: e437888. PMCID: PMC6351103. *These authors contributed equally.
3. *Farley-Barnes, K.I., ***McCann, K.L.**, Ogawa, L.M., Merkel, J., Surovtseva, Y., Freed, E.F., Baserga, S.J. Global Integration of human ribosome biogenesis revealed by changes in nucleolar number. *Cell Reports*. (2018) 7: 1923-1934. PMCID: PMC5828527. *These authors contributed equally.
4. Zhang, J., **McCann, K.L.**, Qiu, C., Gonzalez, L.E., Baserga, S.J. and Hall, T.M.T. Nop9 is a PUF-like protein that prevents premature cleavage to correctly process pre-18S rRNA. *Nat. Commun*. (2016) 7: 13085. PMCID: PMC5062617.
5. **McCann, K.L.**, Teramoto, T., Zhang, J., Hall, T.M., and Baserga, S.J. The molecular basis for ANE syndrome revealed by the large ribosomal subunit processome interactome. *Elife*. (2016) 5: e16381. PMCID: PMC4859800.

6. **McCann, K.L.**, Charette, J.M., Vincent, N.G., and Baserga, S.J. A protein interaction map of the LSU processome. *Genes Dev.* (2015) 29: 862-875. PMID: PMC4403261.
7. Qiu, C., **McCann, K.L.**, Wine, R.N., Baserga, S.J., and Hall, T.M. A new Pumilio repeat protein family for pre-rRNA processing and mRNA localization. *PNAS* (2014) 52: 18554-18559. PMID: PMC4284587.
8. Zhao, C., Andreeva, V., Gibert, Y., LaBonty, M., Lattanzi, V., Prabhudesai, S., Zhou, Y., Zon, L., **McCann, K.L.**, Baserga, S.J. and Yelick, P.C. Tissue specific roles for the ribosome biogenesis factor Wdr43 in zebrafish development. *PLoS Genet.* (2014) 10:e1004074. PMID: PMC3907300.
9. **McCann, K.L.** and Baserga, S.J. Driving nucleolar assembly. *Genes Dev.* (2014) 28:211-213. PMID: PMC3923963.
10. **McCann, K.L.** and Baserga, S.J. Mysterious ribosomopathies. *Science.* (2013) 341:849-850. PMID: PMC3893057.
11. **McCann, K.L.** and Baserga, S.J. Long noncoding RNAs as sinks in Prader-Willi syndrome. *Mol Cell.* (2012) 48:155-157. PMID: PMC3496270.
12. Freed, E.F., Prieto, J.L., **McCann, K.L.**, McStay, B., and Baserga, S.J. NOL11, implicated in the pathogenesis of North American Indian childhood cirrhosis, is required for pre-rRNA transcription and processing. *PLoS Genet.* (2012) 8:e1002892. PMID: PMC3420923.
13. *Talkowski, M.E., ***McCann, K.L.**, *Chen, M., McCalin, L., Bamne, M., Wood, J., Chowdari, K.V., Watson, A., Prasad, K.M., Kirov, G., Georgieva, L., Toncheva, D., Mansour, H., Lewis, D.A., Owen, M., O'Donovan, M., Papasaikas, P., Sullivan, P., Ruderfer, D., Yao, J.K., Leonard, S., Thomas, P., Miyajima, F., Quinn, J., Lopez, A.J., and Nimgaonkar, V.L. Fine-mapping reveals novel alternative splicing of the dopamine transporter. *Am. J. Med. Genet. B Neuropsychiatr Genet* (2010) 153B:1434-1447. PMID: PMC4575812. *These authors contributed equally.

Book Chapters

1. **McCann, K.L.** and Baserga, S.J. Making ribosomes: rRNA transcription and processing. *Fungal RNA Biology* invited book chapter (2014).

AWARDS & HONORS

2019	NIH Fellows Award for Research Excellence
2018	NIEHS Group Merit Award
2015	Honorable Mention: Carolyn Slayman Award in Genetics
2014	Yale Center for RNA Science and Medicine Travel Award ASBMB Travel Award
2013	Yale Center for RNA Science and Medicine Travel Award
2009	Sigma Xi

GRANTS & FELLOWSHIPS

2010	Honorable Mention: NSF Graduate Research Fellowship
2008	Beckman Scholars Program Award

ABSTRACTS & PRESENTATIONS (presenter underlined)

Oral Presentations

1. **McCann, K.L.**, and Hall, T.M.T. Investigation of *Snora27* as a key determinant of stem cell identity. 2020 Science Days, National Institute of Environmental Health Sciences. Durham, NC. Nov. 2020. *Invited talk.

2. **McCann, K.L.**, Kavari, S., Burkholder, A.B., Phillips, B.T., and Hall, T.M.T. Guiding cell fate decisions: investigating the role of H/ACA snoRNAs in differentiation. University at Albany, State University of New York. Albany, NY. Sept. 17, 2019. **Invited talk.*
3. **McCann, K.L.**, Kavari, S., and Hall, T.M.T. Regulation of mouse embryonic stem cell differentiation by H/ACA snoRNAs. 2018 Genomics Day, National Institute of Environmental Health Sciences. Durham, NC. May 2018. **Invited talk.*
4. **McCann, K.L.**, **Sondalle, S.**, Charette, J.M., Vincent, N.G., Teramoto, T., Zhang, J., Hall, T.M., and Baserga, S.J. The LSU processome interactome reveals the molecular basis for ANE syndrome. 2015 Ribosome Synthesis Conference. Brussels, Belgium. August 2015.

Poster Presentations

1. **McCann, K.L.**, Kavari, S., Burkholder, A.B., Phillips, B.T., and Hall, T.M.T. Box H/ACA snoRNAs are key determinants of cell identity and stem cell homeostasis. 2019 Symposium on RNA Biology XIII: RNA Tool and Target. Durham, NC. October 2019.
2. **McCann, K.L.**, Kavari, S., Burkholder, A.B., Phillips, B.T., and Hall, T.M.T. Box H/ACA snoRNAs are key determinants of cell identity and stem cell homeostasis. 2019 NIH Research Festival. Bethesda, MD. September 2019. **Invited Poster Presentation*
3. **McCann, K.L.**, Kavari, S., Burkholder, A.B., and Hall, T.M.T. Box H/ACA snoRNAs are determinants of cell identity and stem cell homeostasis. Nucleic Acids Gordon Research Conference. Newry, ME. June 2019
4. **McCann, K.L.**, Kavari, S., and Hall, T.M.T. Box H/ACA snoRNAs are determinants of cell identity and stem cell homeostasis. NCI 2019 RNA Biology Symposium. Bethesda, MD. April 2019
5. **McCann, K.L.**, Kavari, S., and Hall, T.M.T. Regulation of mouse embryonic stem cell differentiation by H/ACA snoRNAs. FASEB Post-Transcriptional Control of Gene Expression: Mechanisms of RNA Decay. Scottsdale, AZ. June 2018
6. **McCann, K.L.**, Kavari, S., and Hall, T.M.T. Regulation of mouse embryonic stem cell differentiation by H/ACA snoRNAs. 2018 Genomics Day, National Institute of Environmental Health Sciences. Durham, NC. May 2018
5. **McCann, K.L.**, Charette, J.M., Vincent, N.G., and Baserga, S.J. Discovering the pre-60S ribosome biogenesis factor Interactome. 2014 ASBMB annual meeting. San Diego, CA. April 2014
6. **McCann, K.L.**, Charette, J.M., Vincent, N.G., and Baserga, S.J. Discovering the pre-60S biogenesis factor Interactome. Ribosomes 2013. Napa Valley, CA. July 2013
7. **McCann, K.L.** and Baserga, S.J. What makes a nucleolus? Ribosomes 2013. Napa Valley, CA. July 2013
8. **McCann, K.L.** and Baserga, S.J. What makes a nucleolus? Sub-Nuclear Structures and Disease. Cambridge, UK. June 2012
9. **McCann, K.L.**, Charette, J.M., and Baserga, S.J. Discovering the 60S biogenesis factor Interactome. Sub-Nuclear Structures and Disease. Cambridge, UK. June 2012
10. **McCann, K.L.**, Talkowski, M.E., Chen, M., Nimgaonkar, V.L., and Lopez, A.J. A novel cassette exon flanked by schizophrenia-associated SNPs in the dopamine transporter gene. American Society of Human Genetics annual meeting. Philadelphia, PA. November 2008

TEACHING & MENTORING EXPERIENCE

2020	Contributor, COVID-19 curriculum development for grades 9-12
2016 – Present	Guest Lecturer: Science, Teachers, and Research Summer (STaRS) Institute, NIEHS

2017 – Present Developer & Instructor, K-12 Educator Professional Development Workshops, NIEHS

2018 Mentor, Graduate Women in Science & Meredith College Pilot Mentoring Program (Research Triangle Chapter)
Discussion Leader, Research Mentor Training Workshop
Discussion Leader, Summer Internship Program Journal Club

2011 – 2012 Teaching Assistant, Laboratory for Genetics, Yale University

2008 Teaching Assistant, Experimental Techniques in Molecular Biology, Carnegie Mellon University

Mentees

2017 – 2019 Sanam Kavari, Undergraduate
Currently: Postbac at Broad Institute

2017 Davis Brock, Undergraduate
Currently: Research Tech at Duke University

2013 – 2014 Ananth Punyala, Undergraduate
Currently: Fellow at the US Food and Drug Administration

2012 Olga Buzovetsky, Graduate Rotation Student
Currently: Postdoc at The Rockefeller University

2012 Nicholas Vincent, Graduate Rotation Student
Currently: Law Student at New York University Law School

2011 Jonathan Fisher, Undergraduate
Currently: Harvard Medical School

STEM Education

2016 – 2018 Panelist, Interviewee and Host for Student Shadows, NIEHS

2017 – 2018 Speed Mentor: STEM in the Park & Athens Drive High School STEMposium

2017 Panelist, “Career Advice for Women in Science” panel, Meredith College
Host, Mini-Immersion Experience for Wake County Public School System Educators and Principals at the NIEHS

2016 – 2017 Volunteer & Facilitator, High School Teacher Professional Development Workshops at the NIEHS

2016 Lunch with a Scientist Guest Speaker, Research Triangle Park High School
Volunteer, Brilliant and Beautiful Foundation’s Wild About Bioinformatics Workshop

2008 Volunteer, HHMI Science Outreach Day & Mt. Ararat Outreach Science Day

PROFESSIONAL DEVELOPMENT

2020 Bystander Training, National Institutes of Health

2020 Workplace Dynamics and Mentoring Training, National Institutes of Health

2019 Management Bootcamp, National Institutes of Health

2018 Advanced Transcriptomics (RNA seq) Analysis, Foundation for the Advanced Education in the Sciences

2017 Certificate of Training: Scientists Teaching Science 9-week Pedagogy course
Reviewer, UNC Inter-Institutional Planning Grant Program, University of North Carolina

2014 – 2015 Volunteer Contributor, American Society of Biochemistry and Molecular Biology’s membership magazine (ASBMB Today)

2011 – 2015 Journal review under the supervision of Dr. Susan Baserga: *Science, Molecular Cell, Genes and Development, Journal of Cell Biology, Nucleic Acids Research, Cancer Cell, Biochemistry, Molecular Systems Biology, Cell Reports, Oncogene, RNA, Molecular Biology of the Cell*

LEADERSHIP

2017 – 2018 President, NIEHS Trainees Assembly Steering Committee

2016 – 2018 Division of Intramural Research Council Member

2016 – 2017 President, Research Triangle Chapter Graduate Women in Science
Vice President, NIEHS Trainees Assembly Steering Committee
Lead Organizer, Celebration of Women in Science Research Symposium, GWIS
2017 NIEHS Career Symposium Planning Committee

2015 – 2016 2016 Graduate Women in Science National Meeting Planning Committee
2016 NIEHS Career Symposium Planning Committee

2011 – 2012 Co-organizer, Yale Genetics Training Grant Symposium

2008 – 2009 Co-organizer, Mellon College of Science Ball Alumni Fundraiser

2005 – 2009 Carnegie Mellon Biological Sciences Student Advisory Committee