

Robert L. Tennyson, Ph.D.

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Open Science Frameworks: <https://osf.io/9qy73/>

Areas of Specialization

Human Evolutionary Biology • Biology of Aging • Biodemography • Biomarkers • Wet Lab Techniques • Psychosocial Stress • Eustress

Academic Appointments

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| 2025 – Present | Lecturer , Department of Anthropology, University of Washington |
| 2024 – 2025 | Postdoctoral Research Scholar , Department of Biological Sciences, Vanderbilt University,
<i>Principal Investigator</i> : Amanda Lea |
| 2023 - 2024 | Postdoctoral Scholar , Department of Biobehavioral Health, Pennsylvania State University,
<i>Principal Investigators</i> : Jennifer Graham-Engeland, Christopher Engeland |
| 2022 – Present | Postdoctoral Fellow , Department of Sociology, University of Utah
<i>Principal Investigators</i> : Alan A. Cohen (Columbia University), Zachary Zimmer (Mount Saint Vincent University), and Kim Korinek (University of Utah) |

Education

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|------|---|
| 2022 | Ph.D. Biological Anthropology , University of Washington
<i>Faculty Advisor</i> : Dan T.A. Eisenberg |
| 2017 | M.A. Biological Anthropology , University of Washington
<i>Faculty Advisors</i> : Dan T.A. Eisenberg, Bettina Shell-Duncan |
| 2010 | A.B. Human Evolutionary Biology; Mind, Brain, and Behavior , Harvard College, Honors in Field
<i>Faculty Advisor</i> : Richard Wrangham |

Certificates

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| 2022 | Graduate Certificate in Demographic Methods , Center for Studies of Demography and Ecology, University of Washington |
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Publications

Google Scholar h-index: 8; i10 index: 8

** = undergraduate mentee co-author (1 paper published; 2 papers under review/in preparation)

* = co-first author

Pre-Prints, Under Review, and Pre-registrations

16. Tennyson RL, Ryan CP, Kuzawa CW, Eisenberg DTA. (In Preparation). Does maternal early life stress predict young adult offspring's biological age in the Philippines? Preregistration and initial results: <https://osf.io/2pmhy/>.
15. Tennyson RL, Martin M, Pan TD, Korinek K, Zimmer Z, Cohen AA, Tran T. (In Preparation). Biomarkers of health and aging from the Vietnam Health & Aging Study: results from Waves I-II (2019-2022).

14. **Tennyson RL**, Nanda AN**, Gildee CM, Rainsberger K**, Eisenberg DTA. (In Preparation). *Physical activity moderates the association between childhood psychosocial stress and adult telomere length in a sample of NCAA student-athletes and non-athlete college students*. Preregistration and results: <https://osf.io/s2cuji/>.
13. Nanda AN**, **Tennyson RL**. (Under Review). *Analyzing Covid-19 related disturbances and perceived stress in Division-1 collegiate athletes and non-athletes*. Journal of Clinical Sport Psychology. Preregistration and initial results: <https://osf.io/25f4h/>
12. Petersen RM*, **Tennyson RL***, Tan Bee Ting A/P Tan Boon Huat, Tam KL, Watowich MM, Fadzil KS, Nicholas C, Sayed IM, Ng KS, Lim YAL, Venkataraman VV, Wallace IJ, Kraft TS, Lea AJ. (Under Review). *Early life environments shape adult cardiometabolic health during rapid lifestyle change*. Proceedings of the Royal Sciences B – Biological Sciences.

Peer-reviewed

11. Franck M, Tanner KT, **Tennyson RL**, Daunizeau C, Ferrucci L, Bandinelli S, Trumble BC, Kaplan HS, Aronoff JE, Stieglitz J, Kraft TS, Lea AJ, Venkataraman VV, Wallace IJ, Lim YAL, Ng KS, Yeong JPS, Ho R, Lim X, Mehrjerd A, Charalambous EG, Aiello AE, Pawelec G, Franceschi C, Hertel J, Fülöp T, Lemoine M, Gurven M, Cohen AA. (2025). *Nonuniversality of inflammaging across human populations*. Nature Aging. <https://doi.org/10.1038/s43587-025-00888-0>
10. Kunkle A*, **Tennyson RL***, Wander K, McDade TW, Shell-Duncan B, Eisenberg DTA. (2025). *An ADHD-associated polymorphism in the DRD4 gene and nutritional status among Rendille children in northern Kenya*. American Journal of Human Biology. Preregistration and initial results: <https://osf.io/p8yv2>.
9. Nanda AN**, Logan A, **Tennyson RL**. (2024). *The Influence of Perceived Stress and Motivation on Telomere Length Among NCAA Swimmers*. American Journal of Human Biology.
8. Harel EV, Shetreet E, **Tennyson RL**, Fava M, Bar M. (2022). *Constricted semantic relations in Acute Depression*. Journal of Affective Disorders. <https://doi.org/10.1016/j.jad.2022.05.100>.
7. Rivara, FP, **Tennyson RL**, Mills B, Emery C, Gioia G, Giza C, Herring S, Janz K, LaBella C, McLeod TV, Meehan, W, Patricios J. (2020). *Consensus Statement on Sport-related Concussions in Youth Sports*. JAMA Pediatrics. doi: [10.1001/jamapediatrics.2019.4006](https://doi.org/10.1001/jamapediatrics.2019.4006).
6. Rej PH, **Tennyson RL**, Lee NR, Eisenberg DTA. (2019). *Caregiving for disabled family members does not predict telomere length in the Philippines*. Psychoneuroendocrinology. doi: [10.1016/j.psyneuen.2019.01.019](https://doi.org/10.1016/j.psyneuen.2019.01.019). Preregistration: <https://osf.io/a9xbu/>.
5. **Tennyson RL**, Gettler LT, Kuzawa CW, Hayes MG, Agustin S, Eisenberg D. (2018). *Does early life microbial exposure modify the link between psychosocial stress and telomere length in the Philippines?* American Journal of Human Biology. doi: [10.1002/ajhb.23145](https://doi.org/10.1002/ajhb.23145).
4. Logan-Greene, P., **Tennyson, RL**, Borja, S., Nurius, P. (2017). *Adverse Childhood Experiences, Coping Resources, and Mental Health Problems among Court-Involved Youth*. Child & Youth Care Forum. doi: [10.1007/s10566-017-9413-2](https://doi.org/10.1007/s10566-017-9413-2).
3. **Tennyson RL**, Kemp CG, Rao D. (2016) *Challenges and strategies for implementing mental health measurement for research in low-resource settings*. International Health 8.6: 374-380. <https://doi.org/10.1093/inthealth/ihw043>.
2. Harel EV, **Tennyson RL**, Fava M, Bar M. (2016). *Linking Major Depression and The Neural Substrates of Associative Processing*. Cognitive, Affective, and Behavioral Neuroscience. 16.6: 1017-1026. <https://pubmed.ncbi.nlm.nih.gov/27553369/>.
1. Benenson, JF, **Tennyson, R**, Wrangham, RW. (2011). *Male more than female infants imitate propulsive motion*. Cognition, 121, 262-267. <https://doi.org/10.1016/j.cognition.2011.07.006>.

Invited Talks, Workshops, and Research Presentations

* = undergraduate mentee co-author (3 presentations)

Invited Talks and Workshops

5. **Tennyson RL.** (2024). Early life environments, changing lifeways, and inflammation among the Orang Asli of Peninsular Malaysia. *Invited Talk*. Department of Anthropology, Vanderbilt University.
4. **Tennyson RL.** (2024). Introduction to Actigraphy in Population Research. *Invited Workshop*. Center for Studies in Demography and Ecology, University of Washington.
3. **Tennyson RL.** (2023). How does participation in organized youth sports relate to experiences of psychosocial stress during the COVID-19 pandemic in US college students? *Invited Podium Session*. American Association of Anthropology Annual Meeting. Toronto, ON.
2. **Tennyson RL.** (2022). Sports, Stress, and Aging: How does psychosocial stress impact biological aging in collegiate student-athletes? *Invited Podium Session*. American Association of Anthropology Annual Meeting. Seattle, WA.
1. **Tennyson RL.** (2022). 'Legs Feed the Wolf': An evolutionary perspective on psychosocial stress, physical activity, and their associations with telomere length. University of Washington Medical Anthropology and Global Health Speaker Series. November 22.

Conference Presentations

27. Sena C, **Tennyson RL**, Tam KL, Ting TB, Huat TB, Lim YAL, Venkataraman VV, Lea AJ, Kraft TS, Wallace IJ. (2025). Greater time spent in low-intensity physical activity is associated with reduced bone catabolism among the Orang Asli of Peninsular Malaysia. American Association of Biological Anthropology Annual Meeting. Baltimore, MD.
26. Lea A, **Tennyson RL**, Tam KL, Ting TB, Huat TB, Lim YAL, Venkataraman VV, Lea AJ, Kraft TS. (2025). Understanding early life effects on gene regulation and health during rapid lifestyle change. American Association of Biological Anthropology Annual Meeting. Baltimore, MD.
25. **Tennyson RL**, Hoffman J, Tam KL, Ting TB, Huat TB, Lim YAL, Venkataraman VV, Wallace IJ, Lea AJ, Kraft TS. (2025). Higher physical activity levels are associated with better cardiometabolic health across an extreme lifestyle gradient in the Orang Asli of Peninsular Malaysia. American Association of Biological Anthropology Annual Meeting. Baltimore, MD.
24. **Tennyson RL**, Watowich MM, Tam KL, Ting TB; Lim YAL, Ng KS, Venkataraman VV, Wallace IJ, Kraft TS, Lea AJ. (2025). Early life environments are associated with adult body size and cardiometabolic health among the Orang Asli of Peninsular Malaysia. Human Biology Association Annual Meeting. Baltimore, MD.
23. **Tennyson RL**, Martin M, Pan TD, Korinek K, Zimmer Z, Cohen AA, Tran T. (2024). Biomarkers of health and aging in a cohort of Vietnamese adults aged 60 and older. Gerontological Society of America Annual Meeting. Seattle, WA.
22. Engeland CG, Wright MA, Knight EL, **Tennyson RL**, Mousavi L, Buxton OM, Graham-Engeland JE. (2024). Effects of Fasting Status on Plasma Concentrations of Inflammatory and Neurodegenerative Biomarkers and Hormones in Older Adults. Submitted for presentation at the annual meeting of the Psychoneuroimmunology Research Society (PNIRS), Halifax, Canada, June 2024.
21. Witzel, DD, Engeland, CG, Ashley-Douglas, S, **Tennyson, RL**, Slavich, GM, & Graham-Engeland, JE. (2024). Racial differences in associations between adversity and inflammation: Findings from the Einstein Aging Study. Submitted for presentation at the annual meeting of the Psychoneuroimmunology Research Society (PNIRS), Halifax, Canada, June 2024.
20. Engeland CG, **Tennyson RL**, Wright MA, Knight EL, Buxton OM, Graham-Engeland JE. (2024). Effects of Fasting Status on Blood-based Neurodegenerative Biomarkers in Older Adults. Gerontological Society of America Annual Meeting. Seattle, WA.

19. Knight EL, **Tennyson RL**, Wright MA, Graham-Engeland JE, Engeland CG. (2024). Effects of Fasting Status on Plasma Endocrine Biomarkers in Older Adults. Gerontological Society of America Annual Meeting. Seattle, WA.
18. Engeland CG, **Tennyson RL**, Wright MA, Knight EL, Mousavi SL, Buxton OM, Graham-Engeland JE. (2024). Effects of Fasting Status on Blood-based Inflammatory Biomarkers in Older Adults. Gerontological Society of America Annual Meeting. Seattle, WA.
17. Korinek K, **Tennyson RL**, Ahmed S. (2024). How Does Exposure to War Influence Late Life Health? An Examination of Self-Rated Health and Health Pessimism Among Vietnamese Older Adults with Diverse Exposures to Early Life War Stressors. European Population Conference. Edinburgh, Scotland.
16. **Tennyson RL**, Engeland CG, Harrington E, Witzel DD, Slavich GE, Graham-Engeland JE. (2024). Early life adversity is related to different ex vivo inflammatory responses in older men and women. Human Biology Association Annual Meeting. Los Angeles, CA.
15. Engeland CG, Wright MA, **Tennyson RL**, Knight EL, Graham-Engeland JE. (2024). Inflammatory Biomarkers in Older Adults: Stability, Correlations, and Components. American Psychosomatic Society. Brighton, UK.
14. **Tennyson RL**, Wright MA, Knight EL, Graham-Engeland JE, Engeland CG. (2023) Stability and inter-relationships of inflammatory markers across two weeks in older adults. Gerontological Society of America Annual Meeting. Tampa, FL.
13. Gildee CM, Martin MM, Brindle E, **Tennyson RL**, Pan TD. (2023). Does pre-analytical variation in dried blood spot collection impact C-reactive protein measurement? Human Biology Association Annual Meeting. Reno, NV.
12. Nanda AN**, **Tennyson RL**. (2023). Analyzing COVID-19 Related Disruptions and Psychosocial Stress in Collegiate Student-Athletes. Human Biology Association Annual Meeting. Reno, NV.
11. **Tennyson RL**, Nanda AN**, Gildee CM, K Rainsberger**, Eisenberg DTA. (2023). Does physical activity moderate the association between childhood psychosocial stress and adult telomere length in a sample of NCAA student-athletes and non-athlete college students? Human Biology Association Annual Meeting. Reno, NV.
10. **Tennyson RL**, Ryan CP, Duazo P, Carba D, Hayes MG, Kuzawa CW, Eisenberg DTA. (2022). Does maternal early life stress predict young adult offspring's biological age in the Philippines? Human Biology Association Annual Meeting. Denver, CO.
9. Nanda AN**, **Tennyson RL**. (2022). Examining the Influence of Psychosocial Stress on Telomere Length in NCAA Collegiate Swimmers. American Association of Biological Anthropology Annual Meeting. Denver, CO. Preregistration: <https://osf.io/4qk2m/>
8. **Tennyson RL**, Eisenberg DTA. (2021). Maternal early life stress and offspring telomere length in a longitudinal and multigenerational cohort study in the Philippines. Telomere Research Network Annual Meeting. New Orleans, LA.
7. **Tennyson RL**. (2019). Systematic review of the association between cortisol secretion and telomere length in humans. Human Biology Association Annual Meeting. Cleveland, OH. Data publicly available: <https://osf.io/62h8y/>
6. **Tennyson RL**, Wander K, McDade TW, Shell-Duncan B, Eisenberg DTA. (2018). An ADHD associated polymorphism in the DRD4 gene and nutritional status among Rendille children in northern Kenya. Human Biology Association Annual Meeting. Austin, TX.
5. **Tennyson RL**, Gettler LT, Kuzawa CW, Hayes MG, Agustin S, Eisenberg D. (2017). Does early life pathogen exposure modify the link between psychosocial stress and telomere length in the Philippines? Human Biology Association Annual Meeting. New Orleans, LA.

4. **Tennyson RL**, Kemp CG, Rao D. (2016). Challenges and Strategies for Implementing Mental Health Measurement for Research Low-Resource Settings. Consortium of Universities for Global Health. San Francisco, CA.
3. **Tennyson RL**, Harel EV, Bar M. (2016). Selective decreases in the hippocampus in Major Depressive Disorder: a Life History approach. Human Biology Association Annual Meeting. Atlanta, GA.
2. **Tennyson RL**, Gettler LT, Kuzawa CW, Hayes MG, Eisenberg DTAE. (2015). Early life psychosocial stress and blood telomere length among young adults in the Philippines. Human Biology Association Annual Meeting. St. Louis, MO.
1. Logan-Greene, P, Nurius, PS, Borja, S., **Tennyson, RL**. (2015). Adverse Childhood Experiences, Protective Factors, and Mental Health Problems Among Court-Involved Youth. Society for Social Work and Research Annual Conference. New Orleans, LA.

Research Grants, Awards, and Fellowships

2024	Evolutionary Studies Initiative Pilot Grant , Vanderbilt University
2021	Biological Mechanisms of Healthy Aging, Pre-Doctoral Trainee ; University of Washington, NIH/NIAT32 AG066574
2021	Telomere Research Network Analysis Award ; NIH U24 AG066528-03
2020	Center for Leadership in Athletics, Research Grant ; University of Washington
2020	Student Technology Fund ; University of Washington, \$38,813 awarded to Center for Studies in Demography and Ecology Biodemography Lab (Lead Applicant)
2019	Anthropology Department Dissertation Pilot Funding ; University of Washington
2016	Center for Studies in Demography and Ecology, Graduate Fellowship ; University of Washington, NICHD T32 HD007543
2016	Human Biology Association: Student Member Travel Award , Human Biology Association
2016	Department of Global Health Travel Award , University of Washington
2015	Human Biology Association: Student Member Travel Award , Human Biology Association
2014	National Science Foundation Graduate Research Fellowship – Honorable Mention , NSF
2014	William S. Pollitzer Travel Award , American Association of Biological Anthropology
2009	Robert Goelet Research Fund , Harvard College
2009	Mary Gordon Roberts Summer Mind, Brain and Behavior Fellowship , Harvard College
2009	Harvard College Research Program , Harvard College
2009	Dean's Summer Research Award , Harvard College

Research Positions

2025 – 2026	Senior Survey Analyst , Morning Consult, Remote, Seattle, WA
2020 – 2022	Research Scientist , Eisenberg Anthropological Genetics Laboratory, University of Washington
2020 – 2021	Research Associate , Casimir Trials LLC, Seattle, WA
2018 – 2019	Research Consultant , Harborview Injury Prevention and Research Center, Department of Pediatrics, University of Washington
2017 – 2018	Graduate Student Research Assistant , Center for Evaluation and Research for STEM Equity (CERSE), University of Washington

2014 – 2016	Lab Manager , Eisenberg Anthropological Genetics Laboratory, University of Washington
2013 – 2014	Graduate Student Research Assistant , Department of Anthropology, University of Washington
2012 – 2013	Research Assistant , Non Epigenetics Laboratory, Vanderbilt University
2012 – 2013	Research Analyst II , Zald Affective Neuroscience Lab, Vanderbilt University
2011 – 2012	Research Coordinator , Bar Cognitive Neuroscience Lab, Massachusetts General Hospital & Harvard Medical School
2010	Field Research Assistant , Department of Anthropology, New York University
2007 – 2009	Undergraduate Research Assistant , Department of Human Evolutionary Biology, Harvard University
2007	Undergraduate Research Assistant , Lazar Lab, Massachusetts General Hospital

Teaching Positions

Instructor of Record

University of Washington	Evolutionary Medicine Introduction to Biological Anthropology The Non-Human Primates
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Teaching Assistant

University of Washington	Anthropological Genetics Laboratory Methods Laboratory Methods in Hormones and Behavior Reproductive Ecology Laboratory Methods Human Biological Diversity: Sports, Movements, and Activity Anthropology of Sports Anthropology of Soccer Principles of Evolutionary Medicine Human Biological Adaptability Sex and Evolution Principles of Biological Anthropology
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Guest Teaching and Lectures

2024	Vanderbilt University , Department of Anthropology, Biology of Inequality; Lecture: “Telomeres and Our (Psychosocial) Environments”
2021	University of Washington , Department of Anthropology, Human Biological Diversity: Sports, Performance, and Activity; Lecture: “Physical Activity and Psychosocial Stress”
2020	University of Washington , Department of Anthropology, Principles of Evolutionary Medicine, Lecture: “Physical Activity and Psychosocial Stress”
2020	University of Washington , Department of Anthropology, Human Biological Adaptability; Lecture: “Psychosocial Stress and Human Biology”
2019	University of Washington , Department of Anthropology, Principles of Evolutionary Medicine and Public Health, Lecture: “Co-evolution”
2019	University of Washington , Department of Anthropology, Laboratory Methods in Hormones and Behavior; Lecture: “Cortisol and Physical Activity”
2017	University of Washington , Department of Anthropology, Evolution of Human Social Behavior, Lecture: “Evolution of Morality”
2017	University of Washington , Department of Anthropology, Uses and Abuses of Evolutionary Views of Human Behavior; Lecture: “Evolution of Morality”
2017	University of Washington , Department of Anthropology, The Human Life Cycle; Lecture: “Introduction to Epigenetics”

2016	University of Washington , Department of Anthropology, Anthropology and Sports, Lecture: "Hypermasculinity in sport and its effects on Injury and Mental Health"
2016	University of Washington , Department of Anthropology, Laboratory Methods in Anthropological Genetics; Lecture: "Epigenetic Methods in Anthropology"
2015	University of Washington , Department of Anthropology, Human Genetics, Disease, and Culture; Lecture: "Epigenetics and Anthropology"
2015	University of Washington , Department of Anthropology, Principles of Biological Anthropology, Lecture: "Primate Ecology and Conservation: of food and predators"
2015	University of Washington , Department of Anthropology, Laboratory Methods in Anthropological Genetics; Lecture: "Epigenetic Methods in Anthropology"
2014	University of Washington , Department of Anthropology, Laboratory Methods in Anthropological Genetics, Lecture: "Epigenetic Methods in Anthropology"
2013	Vanderbilt University , Department of Anthropology, American Medicine, Lecture: "Epigenetics: How our environment affects our biology."

Mentorship

Undergraduate

Honors	<p>Camilla Rizzi (2024-2025) Department of Biology, Bishops University, Quebec, Canada (Now an MA student in Epidemiology at New York University)</p> <p>Anamika Nanda (2021-2022) Best Honors Thesis Award in Anthropology, 2022 Department of Anthropology, University of Washington, Seattle, WA (Now a Ph.D. student in Integrative and Evolutionary Biology, University of Southern California)</p> <p>Katie Rainsberger (2020-2021) Best Honors Thesis Award in Anthropology, 2021 Department of Anthropology, University of Washington, Seattle, WA (Now an M.Sc. student in Applied Physiology at University of Colorado – Colorado Springs)</p>
Independent Research	<p>Fiona Rivera (2022-2023) Department of Anthropology, University of Washington, Seattle, WA</p> <p>Scott Gustafson (2021-2022) Department of Anthropology, University of Washington, Seattle, WA</p>

Service

Departmental and Professional

2016 – 2017	Outreach and Development Committee , Department of Anthropology, University of Washington
2014 – 2017	NSF GeNOM and ALVA Project for diversifying representation in STEM , University of Washington
2014 – 2015	Undergraduate Outreach Committee , Department of Anthropology, University of Washington
2014	Conference Volunteer, American Association of Physical Anthropologists 2014 Annual Meeting , Calgary, Alberta
2013 – 2014	Resources Committee , Department of Anthropology, University of Washington
2011	Conference Volunteer, American Association of Physical Anthropologists 2011 Annual Meeting , Minneapolis, MN

Peer Review

American Journal of Human Biology
American Journal of Biological Anthropology
Stress
The Canadian Journal of Aging
Geroscience

Professional Memberships

Human Biology Association
American Association of Biological Anthropology
American Anthropological Association
Telomere Research Network
American Aging Association
International Network of Sports Anthropology
The Gerontological Society of America