

**CURRICULUM VITAE**  
**Harold Hanul Lee, PhD, MAPP, MS**  
hkl5425@psu.edu

**CITIZENSHIP**

The Republic of Korea and the United States of America

**PROFESSIONAL EXPERIENCE**

- 2022 – present      **Assistant Professor** (Tenure Track)  
Department of Biobehavioral Health, College of Health and Human Development  
The Pennsylvania State University
- Director**  
Biobehavioral Population Health Laboratory  
The Pennsylvania State University
- 2021-2022      **Post-doctoral Research Fellow**  
Genetic Epidemiology of Heart, Lung, and Blood Traits Training Grant (T32HL129982)  
Department of Epidemiology  
University of North Carolina at Chapel Hill
- 2019-2021      **Postdoctoral Research Fellow**  
Department of Social and Behavioral Sciences, School of Public Health  
Harvard University

**EDUCATION**

- 2015-2019      Doctor of Philosophy in Behavioral and Social Health Sciences  
Brown University, RI, USA
- 2013-2014      Master of Applied Positive Psychology  
University of Pennsylvania, PA, USA
- 2011-2013      Master of Science in Kinesiology  
University of Connecticut, CT, USA
- 2004-2010      Bachelor of Science in Sport Science  
Seoul National University, Seoul, South Korea  
(\*Mandatory military service from 2006-2008 in the Republic of Korea Army)

**COMPLETED EXTRAMURAL GRANTS:**

1. National Institute of Aging-funded Stress Measurement Network (MPI; Lee; Kubzansky)  
Cross-National Comparison of Psychological Stress      Total Award: \$2,500  
A Cross-national Comparison of the Effect of Loneliness on Cardiovascular Disease: National  
Longitudinal Studies of Aging in East Asia vs. the West
2. National Heart, Lung, and Blood Institute, National Institutes of Health (Lee, PI)  
F31 HL140817 01      5/25/2018-5/24/2019      Total Award: \$34,452  
Genetic Effects of BDNF on Physical Activity Adherence: Affective Response to Physical Activity as a  
Phenotypic Mediator

3. American College of Sports Medicine Foundation (Lee, PI)  
Doctoral Student Research Grant 7/1/2018-8/1/2019 Total Award: \$5,000  
Affective Response to Exercise as an Intermediate Phenotype: An Evidence-based Cumulative Genetic Score Approach

### ONGOING INTERNAL GRANTS:

1. Social Science and Research Institute: (Lee, PI)  
  
Mentored Faculty Fellows Program 7/1/2024 – 6/30/2025 Total Award: \$29,500  
  
Understanding Heterogeneity in Behavioral Interventions through the Integration of Genetics, Metabolomics, and Latent Class Modeling. (Mentors: Lanza, Stephanie; Patterson, Andrew)

### PUBLICATIONS:

#### Original Publications in Peer-Reviewed Journals (\* indicates mentored students)

(Google Scholar: <https://scholar.google.com/citations?user=FT13eB8AAAAJ&hl=en&oi=ao>)

23. Trudel-Fitzgerald, C., Lee, L.O., Guimond, A.J., Chen, R., James, P., Koga, H.K., **Lee, H.H.**, Okuzono, S.S., Rich-Edwards, J. and Kubzansky, L.D.,. (2023) A long and resilient life: The role of coping strategies and variability in their use in lifespan among women. *Anxiety, Stress, & Coping*. 1-14
22. Avery C.L., Howard A.G., **Lee H.H.**, Downie C.G., Lee M.P., Koenigsberg S.H., Ballou A.F., Preuss M., Raffield L., Yarosh R., North K.E., Gordon-Larsen P., Graff M. (2023) Branched chain amino acids harbor distinct and often opposing effects on health and disease. *Communication Medicine*. 3 (1), 172
21. **Lee, H. H.**, Okuzono, S. S., Trudel-Fitzgerald, C., James, P., Koga, H. K., Sims, M., ... & Kubzansky, L. D. (2023). Social integration and risk of mortality among African-Americans: the Jackson heart study. *Social Psychiatry and Psychiatric Epidemiology*, 1-11.
20. **Lee H.H.**, McGeary J.E., Dunsiger S., Emerson J.A., Bock B., McCaffery J., Dwyer K., Bryan A., Williams D.M. (2022) Affective Response to Physical Activity as a Deep Phenotype in a Non-Randomized Longitudinal Pilot Study. *Scientific Report*. 12, 5893
19. Okuzono1 S.S., Shiba K., **Lee H.H.**, Shirai K., Koga H., Kondo N., Fujiwara T., Kondo K., Grodstein F., Kubzansky L.D., Trudel-Fitzgerald C. (2022) Optimism and Longevity Among Japanese Older Adults. *Journal of Happiness Studies*, 1-15.
18. James P., Trudel-Fitzgerald C., **Lee H.H.**, Hayami K., Kubzansky L.D., Okuzono S.S. (2022) Linking Individual-level Facebook Posts with Psychological and Health Data in an Epidemiologic Cohort: A Feasibility Study. *JMIR Formative Research*, 6(4), e32423
17. **Lee H.H.**, Kubzansky L.D., Okuzono S.S.\*, Trudel-Fitzgerald C., James P., Hayami K., Kim E.S., Glover L.M., Sims S., Grodstein F. (2021) Optimism and risk of mortality among African Americans: The Jackson Heart Study. *Preventive Medicine* 154, 106899
16. Emerson J.A., Dunsiger S, **Lee, H.H.**, Bock B., Kahler C., Williams D.M., (2021) Daily Instrumental and Affective Attitudes about Exercise: An Ecological Momentary Assessment Study. *Annals of Behavioral Medicine*, kaab047

15. **Lee H.H.**, McGeary J.E., Dunsiger S., Baker L., Balasubramanyam A., Knowler W., and Williams DM. (2021) The Moderating Effects of Genetic Variations on Changes in Physical activity level and Cardiorespiratory Fitness in Response to a Lifestyle Intervention: a Randomized Controlled Trial. *Psychosomatic Medicine* 83(5):440-448
14. **Lee H.H.**, Okuzono S.S.\*, Kim E.S., De Vivo I., Raffield L.M., Glover L.M., Sims M., Grodstein F., and Kubzansky L.D. (2021). Optimism and Telomere Length among African American Adults: Cross-Sectional Analysis from the Jackson Heart Study. *Psychoneuroendocrinology*, 105124.
13. Lee, H.\*, **Lee, H. H.**, Kang, A., Cha, Y., & Operario, D. (2020). Psychological stress, smoking, and hazardous drinking behaviors in South Korea: findings from the Korea National Health and Nutrition Examination Survey. *Journal of Substance Use*, 1-8.
12. **Lee, H. H.**, & Operario, D. (2020). An Insider's Guide to Conducting Social Epidemiological Investigations Using a Nationally Representative Dataset of South Korean Adults, KNHANES. *SAGE Research Methods Cases*
11. **Lee, H. H.**, Kang, A. W., Lee, H., Cha, Y., & Operario, D. (2020). Cumulative Social Risk and Cardiovascular Disease Among Adults in South Korea: A Cross-Sectional Analysis of a Nationally Representative Sample. *Preventing Chronic Disease*, 17.
10. Boyle, H. K., Dunsiger, S. I., Bohlen, L. C., Emerson, J. A., **Lee, H. H.**, Stevens, C. J., & Williams, D. M. (2019). Affective response as a mediator of the association between the physical and social environment and physical activity behavior. *Journal of Behavioral Medicine*, 1-10.
9. **Lee, H. H.**, Pérez, A. E., & Operario, D. (2019). Age moderates the effect of socioeconomic status on physical activity level among south Korean adults: cross-sectional analysis of nationally representative sample. *BMC public health*, 19(1), 1332.
8. Galárraga, O., Bohlen, L. C., Dunsiger, S. I., **Lee, H. H.**, Emerson, J. A., Boyle, H. K., ... & Williams, D. M. (2019). Small sustainable monetary donation-based incentives to promote physical activity: A randomized controlled trial. *Health Psychology*. 39(4), 265–268
7. **Lee, H. H.**, Hsieh, Y. P., Murphy, J., Tidey, J. W., & Savitz, D. A. (2019). Health Research Using Facebook to Identify and Recruit Pregnant Women Who Use Electronic Cigarettes: Internet-Based Nonrandomized Pilot Study. *JMIR research protocols*, 8(10), e12444.
6. **Lee, H. H.**, Emerson, J. A., Bohlen, L. C., & Williams, D. M. (2018). Affective response to physical activity as an intermediate phenotype. *Social Science & Medicine*, 112038.
5. **Lee, H. H.**, Dunsiger, S., Connell Bohlen, L., Boyle, H. K., Emerson, J. A., & Williams, D. M. (2020). Age Moderates the Effect of Self-Paced Exercise on Exercise Adherence among Overweight Adults. *Journal of Aging and Health*, 32(3-4), 154-161.
4. Williams, D. M., **Lee, H. H.**, Connell, L., Boyle, H., Emerson, J., Strohacker, K., & Galárraga, O. (2018). Small sustainable monetary incentives versus charitable donations to promote exercise: Rationale, design, and baseline data from a randomized pilot study. *Contemporary clinical trials*, 66, 80-85.
3. **Lee, H. H.**, Emerson, J. A., & Williams, D. M. (2016). The exercise–affect–adherence pathway: an evolutionary perspective. *Frontiers in psychology*, 7, 1285.
2. Ash, G. I., Kostek, M. A., **Lee, H.**, Angelopoulos, T. J., Clarkson, P. M., Gordon, P. M., ... & Devaney, J. M. (2016). Glucocorticoid receptor (NR3C1) variants associate with the muscle strength and size response to

resistance training. *PLoS One*, 11(1), e0148112.

1. **Lee, H.**, Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D. (2015). Obesity-related genetic variants and their associations with physical activity. *Sports medicine-open*, 1(1), 1-7.

### Under review

1. **Lee, H.H.**, Chen R., Okuzono S.S., Kubzansky L.D., Loneliness and Cardiovascular Disease Incidence: A Cross-National Study of Two Nationally Representative Cohorts of Older Adults in the US and South Korea.
2. **Lee, H.H.**, Avery C.L., Graff M., Kim D., Van Horn L., Kooperberg C., and North K.E., Polygenic Risk for Obesity and Race Modify the Effect of a Low Fat Dietary Clinical Trial on Weight Loss
3. Downie C.G., Shrestha P., Okello S., **Lee H.H.**, Wang Y., Krishnan M., Chen H., Justice A.E., Chittoor G., Gahagan S., Bradfield J., Grant S., Below J., Felix J., Graff M., Divaris K., North K.E. Trans-ancestry Genome Wide Association Study (GWAS) of childhood body mass index identifies novel loci and age-specific effects.
4. Dyer W\*, Wildings, H.\*, **Lee, H.H.**, Interplay between polygenic predisposition to smoking and early psychosocial factors: nationally representative European- and African-Americans from Health and Retirement Study.
5. Lee S.H., Kim K., Gim S., **Lee H.H.**, Woo C-W, Choi I., Genetic Influences on Psychological Well-being and Subjective Well-being in Korean Young Adults
6. **Lee H.H.**, Kim E.S., Kim Y., Conroy D.E., VanderWeele T.J., Exploring Novel Determinants of Exercise Behavior: a Lagged Exposure-Wide Approach
7. **Lee H.H.**, Conroy D., "Self-regulation of exertion and displeasure during exercise." In M. Bigliassi & E. Filho (Ed.), *Sport and Exercise Psychophysiology*

### Book Chapter

1. Emerson J.A., **Lee, H.H.**, & Williams, D.M. (2017). Shaping Expectations. In B. Jackson, J. Dimmock, & J. Compton (Ed.), *Persuasion and Communication in Sport, Exercise, and Physical Activity*.

### PRESENTATIONS (\* indicates mentored students):

23. **Lee, H.H.** Integrating Genetics into Behavioral and Social Health Research. Colloquium talk at the Department of Sociology, Yonsei University, Seoul, South Korea (6/11/2024). **Oral Slide**

22. **Lee, H.H.** Overcoming WEIRD Bias through Diverse and Large Epidemiological Cohort Studies. Seminar at the Department of Psychology, Seoul National University, Seoul, South Korea (6/10/2024). **Oral Slide**

21. **Lee, H.H.** Loneliness and Cardiovascular Disease Risk: A Cross- National Study of Two Nationally Representative Cohorts of Older Adults in the US and South Korea. An Employment Panel Survey Conference. Seoul, South Korea, (6/5/2024). **Oral Slide**

20. **Lee, H.H.**, Avery C.L., Graff M., Kim D., Van Horn L., Kooperberg C., and North K.E., Polygenic Risk for Obesity and Race Modify the Effect of a Low Fat Dietary Clinical Trial on Weight Loss. American Heart

Association EPI | Lifestyle Scientific Sessions, Chicago, IL (3/20/2024). **Poster**

19. Sutara B.\*, Lee, H.H., Synergistic Influence of Genetics and Diabetes on Cardiovascular Disease Risk in Older Adults in the US. 2024 Pennsylvania Association of Genetic Counselor Spring Conference (3/21,2024) **Oral Slide – Best Abstract**

18. Lee, H.H., Integrating Genetics into Behavioral and Social Health Research. Public Health Sciences Seminar Series, Division of Epidemiology, Penn State College of Medicine (1/29,2024) **Oral Slide**

17. Wildings, H.\*, Dyer W\*., Lee., H.H., Time Varying Effect of Polygenic Predisposition to Depressive Symptoms: Health and Retirement Study. the 80th Annual Meeting of the American Psychosomatic Society, San Juan, Puerto Rico (3/8, 2023) **Poster**

16. Dyer W\*., Wildings, H.\*, Lee., H.H., Interplay between polygenic predisposition to smoking and early psychosocial factors: nationally representative European- and African-Americans from Health and Retirement Study. the 80th Annual Meeting of the American Psychosomatic Society, San Juan, Puerto Rico (3/8, 2023) **Poster**

15. Lee H.H., *Translating Genomic Discoveries to Behavioral Interventions: Deep Phenotyping of Physical Activity*. Department of Physical Education, Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 2022 Annual Meeting. Harrisburg, PA (11/4, 2022) **Oral Slide**

14. Lee H.H., *Translating Genomic Discoveries to Behavioral Interventions: Deep Phenotyping of Physical Activity*. Department of Physical Education, Seoul National University (SNU), South Korea, SNU's 10-10 Seminar (i.e., "Top 10 in the world in 10 disciplines.") (11/15, 2021) **Virtual Oral Slide**

13. Lee H.H., Okuzono SS\*, Kim ES, Glover L, Sims M, Grodstein F, and Kubzansky LD, *Social Integration and Risk of Premature Mortality among African-Americans: The Jackson Heart Study*. **Virtual Oral Slide** presentation at Interdisciplinary Association for Population Health Science in Baltimore MD (10/19-21, 2021)

12. Lee, H.H., Chen, R, Kubzansky L.D., *The Association between Loneliness and Cardiovascular Disease in the US and South Korea: Longitudinal Study of National Representative Samples*. **Virtual Poster** presentation at Society of Epidemiological Research conference (6/22-25, 2021)

11. Lee, H.H., Okuzono SS, Chen, R, Kubzansky L.D., *A Cross-national Comparison of the Effect of Loneliness on Cardiovascular Disease: National Longitudinal Studies of Aging in East Asia vs. the West*. Cross-National Comparison of Psychological Stress, National Institute of Aging-funded Stress Measurement Network. **Oral Slide** (6/25/2020)

10. Lee H.H., Okuzono SS\*, Kim ES, Glover L, Sims M, Grodstein F, and Kubzansky LD, *Optimism and mortality among African Americans: The Jackson Heart Study*. American Psychosomatic Society. Long Beach CA, Mar 13<sup>th</sup>, 2020, Accepted as **Oral Slide** but the conference was cancelled due to COVID19)

9. Lee, H. H., Kang, A. W., Lee, H., Cha, Y., & Operario, D. *Cumulative Social Risk Predicts Cardiovascular Disease over Framingham Risk Scores among South Korean Adults: A Cross Sectional Analysis of Nationally Representative Sample*. Society of Behavioral Medicine Annual Conference. Washington DC, Mar 6<sup>th</sup>, 2019 **Poster**

8. Lee, H. H., Galárraga, O., Bohlen, L. C., Dunsiger, S. I., Emerson, J. A., Boyle, H. K., ... & Williams, D. M. *Subjective Well-Being Moderates the Effect of Conditional Incentives on Exercise Adherence among Healthy Adults*. Society of Behavioral Medicine, Washington DC, Mar 8<sup>th</sup>, 2019 **Poster**

7. Lee, H., Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D.

*Muscle Size and Strength and their Associations with Sports Participation among Young Adults*. American College of Sports Medicine, Minneapolis, MN, May 30<sup>th</sup>, 2018, **Oral Poster**.

6. **Lee, H. H.**, Dunsiger, S., Connell Bohlen, L., Boyle, H. K., Emerson, J. A., & Williams, D. M. *Age Moderates the Effect of Self-Paced Walking on Exercise Adherence among Overweight Adults*. Society of Behavioral Medicine Annual Conference San Diego, CA, Mar 31st, 2017, **Poster**

5. **Lee, H. H., Park, G.** *Physical Activity and Thriving Community: Can Group-Walking Generate Social Capital? A Literature Review*. MAPP Summit 2014, University of Pennsylvania, Philadelphia, PA Oct 18th, 2014, **Poster**

4. **Lee, H.**, Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D. *Obesity-Related Genetic Variants and their Associations with Physical Activity*. Institute for Systems Genomics, Annual Networking Workshop for UConn and Jackson Laboratory. Storrs, CT, May 13th 2014, **Poster**

3. Pescatello, L, **Lee, H.**, Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D. *Genetic Variants Associated with Obesity and Physical Activity among Young Adults. Obesity from Bench to Bedside: Potential for Cross-Campus Research Collaborations*. Supported by Center for Health Intervention and Prevention / Connecticut Institute for Clinical and Translational Science. Farmington, CT, Apr 2nd, 2013. Video available at <http://mediasite.uchc.edu/mediasite41/Play/4dc808b027aa4d2c8e5e2192a481e7e11d>, relevant section starts at (00:21:25) **Oral presentation by Dr. Linda Pocatello (Advisory Prof.)**

2. **Lee, H.**, Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D. *Fat Mass and Obesity Associated (rs9939609) Genetic Variant Associates with Physical Activity*. New England American College of Sports Medicine, Providence, RI, Nov 8th, 2012. **Oral Slide**

1. **Lee, H.**, Ash, G. I., Angelopoulos, T. J., Gordon, P. M., Moyna, N. M., Visich, P. S., ... & Thompson, P. D. *Ghrelin (GHRL) Genetic Variants Associate with Physical Activity*. New England American College of Sports Medicine, Providence, RI, Nov 4th, 2011. **Oral Slide**

## **MANUSCRIPT REVIEWER (AD-HOC)**

Annals of Internal Medicine  
Brain, Behavior, and Immunity  
Health Psychology  
Frontiers in Psychology  
Annals of Behavioral Medicine  
American Journal of Preventive Medicine  
Genes  
BMC Genetics  
Medicine and Science in Sports and Exercise  
Sports Medicine Open  
Journal of Psychosomatic Research  
International Journal of Behavioral Medicine  
Journal of Behavioral Medicine  
Scientific Report  
Applied Psychology: Health and Well-Being  
Journal of Medical Internet Research  
Journal of Medical Internet Research Cardio  
Journal of Medical Internet Research Formative Research

## **MEMBERSHIP IN SOCIETIES**

American Psychosomatic Society  
Society of Behavioral Medicine  
American Heart Association

## **HONORS AND AWARDS**

2022 American Psychosomatic Society Young Investigator Colloquium  
2021 T32 Ruth L. Kirschstein National Research Service Award, NIH/NHLBI  
2018 ACSM Foundation Doctoral Student Research Grant (\$5,000)  
2013 Neag Graduate Student Association Scholarship and Leadership Award, UCONN  
2012 Outstanding Master's student Scholarship, UCONN  
2011 Graduate Assistantship (Full tuition & Stipend), University of Connecticut (UCONN)  
2007 Undergraduate Scholarship, Seoul National University

## **TEACHING EXPERIENCE**

2023 *Foundations and Principles of Health Promotion* at Penn State University (Primary Instructor)  
2019 *Basic Statistics* at Roger Williams University (Teaching Experience)  
2016-2017 *Designing and Evaluating Public Health Intervention* at Brown University (Teaching Assistant)

## **PROFESSIONAL SERVICES**

2023 Cochair, Founder's Day & Colloquium Committee, Department of Biobehavioral Health, Pennsylvania State University  
2022 Poster Judge, Founder's Day, Department of Biobehavioral Health, Pennsylvania State University  
2022 Co-Chair, Paper Session on Genetic and Genomics, Annual Meeting of Society of Behavioral Medicine,  
2020 Poster Judge, Public Health Research Day, Brown University School of Public Health

## **MENTORING EXPERIENCE**

2022- Penn State PhD Students  
Walter Dyer (Department of Psychology)  
Hannah Waldinger (Medicine)  
John Long (Department of Nutrition)

Penn State Undergraduate Students  
Brianna Sutara (Department of Biology & Psychology)  
Emilie Gregory (Department of Biobehavioral Health)  
Geoffrey Sandhanamudi (Department of Biobehavioral Health)  
Younseo Kim (Data Science & Statistics)  
Nicholas Way (Data Science & Statistics)

2019-2021 Master-level research assistant: Sakurako Okuzono, Harvard University.  
In 2022, accepted to the Ph.D. program in Population Health Sciences at Harvard University.

2018-2019 Undergraduate: Hyunjoon Lee, Brown University (Computer Science).  
In 2020, hired at Smoller Lab at Massachusetts General Hospital as a data scientist.