PROMOTION RECOMMENDATION
The University of Michigan
School of Public Health
Department of Epidemiology

Sung Kyun Park, associate professor of epidemiology, with tenure, School of Public Health, and associate professor of environmental health sciences, School of Public Health, is recommended for promotion to professor of epidemiology, with tenure, and professor of environmental health sciences, without tenure, School of Public Health.

Academic Degrees:

Sc.D.	2005	Harvard University, Cambridge, MA
M.P.H.	2000	Seoul National University, Seoul, South Korea
B.S.	1998	Seoul National University, Seoul, South Korea

Professional Record:

2018 – Present	Affiliated Faculty, Kresge Hearing Research Institute, University of Michigan, Medical School, Ann Arbor, MI
2017 – Present	Associate Professor, Departments of Epidemiology and Environmental Health Sciences, University of Michigan School of Public Health, Ann Arbor, MI
2017	Visiting Associate Professor, Department of Environmental Health, Seoul National University School of Public Health, Seoul, South Korea
2010 – 2017	Assistant Professor, Departments of Epidemiology and Environmental Health Sciences, University of Michigan School of Public Health, Ann Arbor, MI
2007 – 2010	Research Assistant Professor, Department of Environmental Health Sciences, University of Michigan School of Public Health, Ann Arbor, MI

Summary of Evaluation:

Teaching: Professor Park has made significant contributions to the master's and doctoral programs in the Departments of Epidemiology, Environmental Health Sciences, and Biostatistics. He has taught 15 courses in rank and co-taught two others. His course evaluations are universally strong, ranging from 4.2 to 5.0 on Q1 (excellent course) and 4.6 to 5.0 on Q2 (excellent teacher), with averages of 4.55 and 4.78, respectively. His teaching portfolio includes three courses that he developed: EPID/EHS 675 (Data Analysis for Environmental Epidemiology), EPID 642 (Sampling and Power), and EPID 815/BIOSTAT 698 (Modern Statistical Methods in Epidemiologic Studies). EPID/EHS 675 is a required course for M.P.H. students in the occupational and environmental epidemiology track. This course, which is popular among masters and doctoral students, covers a range of epidemiologic methods, with students using R to apply these methods to environmental health data. EPID 642 is a required course for epidemiology M.P.H. students. Professor Park uses hands-on exercises in this course to teach students about sampling methods and power and sample size calculations. EPID 815/BIOSTAT 698 is an elective course for doctoral students in the Department of Epidemiology and master's students in the Department of Biostatistics. This course allows students to

implement advanced modern epidemiologic methods using real-world data. In recognition of his teaching excellence, Professor Park was nominated for the Golden Apple Award in 2019.

In addition to his strong record of didactic teaching, he is a faculty mentor on the Environmental Toxicology and Epidemiology T32 training grant and is the multi-program director of the Interdisciplinary Research Training on Health and Aging T32 training grant. Over the past six years, he chaired or co-chaired nine dissertation committees and served as a member of 12 dissertation committees. He also mentored five post-doctoral fellows, 21 M.P.H. capstone/ Integrated Learning Experience (ILE) projects, two M.S. thesis projects, 19 summer internships, and one undergraduate student. Professor Park's trainees have published 36 peer-reviewed journal articles and have given 37 conference presentations.

Research: Professor Park's research examines the role of environmental exposures in cardiometabolic health, reproductive health, and age-related disease, with a focus on environmental exposure assessment, causal inference, and the development of analytic approaches to assess chemical mixtures. Professor Park's work developing a new environmental epidemiology study in the Study of Women's Health Across the Nation (SWAN) cohort has resulted in a number of new scientific discoveries. This work, funded by awards from the National Institute of Environmental Health Sciences (NIEHS), documented racial and ethnic differences in environmental chemical exposures; demonstrated that exposure to polyfluoroalkyl substances (PFAS), phthalates, and metals are associated with earlier development of type 2 diabetes and metabolic syndrome; and found that environmental chemical exposure may lead to earlier natural menopause. These studies were featured in numerous media outlets and were recognized by NIEHS with two Extramural Paper of the Month Awards in August 2020 and May 2022. In addition to his work in SWAN, Professor Park is funded by the National Institute of Aging (NIA) to examine chronic exposure to lead and cadmium as a risk factor for incident Alzheimer's Disease and related dementias (ADRD). A key methodological contribution of Professor Park's work has been the development of statistical approaches to examine multi-pollutants and to integrate risks for multi-pollutants into an Environmental Risk Score (ERS). In future work, he plans to apply his ERS to prediction models for type 2 diabetes, cardiovascular disease, and ADRD.

Professor Park's record of research productivity, particularly while in his current rank, is outstanding. During his time in rank, Professor Park has published 68 peer-reviewed journal articles, including 39 as senior author and five as first author. His work has appeared in top environmental health and clinical journals such as *Environmental Health Perspectives*, *Environmental Science & Technology*, *Environmental Research*, *Reproduction Update*, *Diabetes Care*, and *Journal of the American Heart Association*.

Professor Park has a strong track record of external grant support. He has served as the principal investigator (PI) of three NIEHS-funded R01 awards and a multiple PI (MPI) of one NIA-funded R01 award, with a total of $11.2 million in funding. He has also served in leadership roles in the NIEHS-funded Michigan Center on Lifestage Environmental Exposures and Diseases (M-LEEaD) P30 center and the National Institute for Occupational Safety and Health (NIOSH)-funded Center for Occupational Health and Safety Engineering (COHSE) T42 center.

Recent and Significant Publications:

Ding, N., Harlow, S.D., Randolph, J.F., Calafat, A.M., Mukherjee, B., Batterman, S., Gold, E.B., Park, S.K., 2020b. Associations of Perfluoroalkyl Substances with Incident Natural. Menopause: The Study of Women's Health Across the Nation. *J. Clin. Endocrinol. Metab*. 105, e3169–e3182. https://doi.org/10.1210/clinem/dgaa303

Park, S.K., Sack, C., Sirén, M.J., Hu, H., 2020. Environmental Cadmium and Mortality from Influenza and Pneumonia in U.S. Adults. Environ. *Health Perspect*. 128, 127004. https://doi.org/10.1289/EHP7598

Park, S.K., Wang, X., Ding, N., Karvonen-Gutierrez, C.A., Calafat, A.M., Herman, W.H., Mukherjee, B., Harlow, S.D., 2022. Per- and polyfluoroalkyl substances and incident diabetes in midlife women: the Study of Women's Health Across the Nation (SWAN). *Diabetologia*. https://doi.org/10.1007/S00125-022-05695-5

Wang, W., Moroi, S., Bakulski, K., Mukherjee, B., Weisskopf, M.G., Schaumberg, D., Sparrow, D., Vokonas, P.S., Hu, H., Park, S.K., 2018. Bone Lead Levels and Risk of Incident Primary Open-Angle Glaucoma: The VA Normative Aging Study. Environ. *Health Perspect*. 126, 87002. https://doi.org/10.1289/EHP3442

Wang, X., Mukherjee, B., Park, S.K., 2019b. Does Information on Blood Heavy Metals Improve Cardiovascular Mortality Prediction? *J. Am. Heart Assoc*. 8, e013571. https://doi.org/10.1161/JAHA.119.013571

Service: Professor Park's service record is strong. Within the Department of Epidemiology, he serves as the co-chair of the department's Curriculum Committee, which oversaw a complete revision of the epidemiology M.P.H. core curriculum during the 2022-2023 academic year. He has served on the Advisory Committee for the Summer Session in Epidemiology since 2017, and he oversaw the doctoral competency exam in 2018 and 2019. At the school level, Professor Park currently serves on the School of Public Health Executive Committee and previously served as the departmental representative to the Advisory Committee for Academic Programs. Externally, Professor Park's service includes his work as associate editor of *Environmental Research*. He has served on the editorial board for four journals and participated as a guest editor for a special issue of the *International Journal of Environmental Research and Public Health*. He has served as a grant reviewer for NIH and Centers for Disease Control and Prevention (CDC) and as an external advisory board member for the Michigan Department of Health and Human Services (MDHHS) Environmental Health Research and Surveillance Guidance Panel. In recognition of his international reputation as an expert in environmental epidemiology, Professor Park was asked to serve on the external advisory board for the Third Korean National Environmental Health Survey.

External Reviewers:
Reviewer A: "Dr. Park is a model for academic excellence and I give him my highest recommendation"

Reviewer B: "I am confident that Dr. Park will continue to contribute outstanding research, mentoring, and service at the University of Michigan and to the broader scientific community. I currently serve on both the College and Departmental Appointments, Promotion, and Tenure committees here and have no doubt that Dr. Park would be promoted to the rank of Professor with tenure here."

Reviewer C: "Dr. Park is clearly deserving of the rank Professor with Tenure at the University of Michigan and would be at other peer institutions, including [my institution]."

Reviewer D: "Based on his achievements, particularly in research, I strongly support his promotion to Full Professor with tenure... In my opinion, he would readily be appointed at the Full Professor level at [my institution] or other leading research institutions."

Reviewer E: "I believe Dr. Park would meet all requirements for promotion to Professor with tenure at [my institution]. His dossier is outstanding and well-balanced in scholarship, educational program contributions, and service within and outside the University of Michigan."

Reviewer F: "Dr. Park is an extremely productive public health researcher whose work has deep impact both in terms of understanding the environmental health effects on chronic disease risk as well as advancing methodology for exposure assessment. He also has a very strong track record in training and mentoring and has served in leadership and service roles as summarized above. If he were being promoted at [my institution], I would be in full support of his promotion."

<u>Summary of Recommendation:</u> Professor Park is an environmental epidemiologist with research interests in the role of environmental exposures in cardiometabolic, reproductive health, and age-related disease with a focus on environmental exposure assessment, epidemiologic causal inference, and the development of analytic approaches to assess chemical mixtures. He has an excellent record in research, teaching and service. It is with the support of the School of Public Health Executive Committee that I recommend Sung Kun Park be promoted to the rank of professor of epidemiology, with tenure, and professor of environmental health services, without tenure, School of Public Health.

F. DuBois Bowman, Ph.D.
Dean, School of Public Health

May 2024