

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PEDIATRICS AND COMMUNICABLE DISEASES
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF NUTRITIONAL SCIENCES

Joyce M. Lee, M.D., associate professor of pediatrics and communicable diseases, with tenure, Department of Pediatrics and Communicable Diseases, Medical School, and associate professor of nutritional sciences, without tenure, Department of Nutritional Sciences, School of Public Health, is recommended for promotion to professor of pediatrics and communicable diseases, with tenure, Department of Pediatrics and Communicable Diseases, Medical School, and professor of nutritional sciences, without tenure, Department of Nutritional Sciences, School of Public Health.

Academic Degrees:

M.P.H	2006	University of Michigan
M.D.	2000	University of Pennsylvania
B.A.	1995	Brown University

Professional Record:

2012-present	Associate Professor of Pediatrics and Communicable Diseases, University of Michigan
2012-present	Associate Professor of Nutritional Sciences, University of Michigan
2011-2012	Assistant Professor of Nutritional Sciences, University of Michigan
2006-2012	Assistant Professor of Pediatrics and Communicable Diseases, University of Michigan

Summary of Evaluation:

Teaching: Dr. Lee has served as an educator and mentor to trainees at all levels, providing educational lectures and working directly in clinical care and research with undergraduates and medical students, fellows in pediatric endocrinology, post-doctoral fellows from the Robert Wood Johnson Foundation Clinical Scholars Program, Ph.D. students from the School of Public Health and the School of Information, and junior faculty in the medical school. Her contributions to their education include training in the diagnosis, management, and treatment of pediatric endocrine disorders; research methods (literature review, creating specific aims and hypotheses, conducting statistical analyses, and writing abstracts, manuscripts, and grants); the use of emerging technologies in research and clinical care; and career development. Her mentorship has resulted in 18 peer-reviewed articles, successful grant applications, numerous abstracts at national meetings, and careers in academia. Furthermore, she has received support from the University of Michigan Office of the Provost for interdisciplinary collaborative teaching efforts with professors from the School of Art and Design and the School of Information, to create engaged learning experiences focused on healthcare for undergraduate and graduate students.

Research: Dr. Lee is a prolific translational researcher in pediatric endocrinology focused on two major arenas: childhood obesity and childhood diabetes. She performs research in clinical efficacy, health services research, and health services delivery. To date, she has 88 peer-reviewed publications, 42 while in rank of which she is first or senior author on 21 of those publications. Through her work, she has developed a national and international reputation in the field of pediatric endocrinology as one of its leading scholars. She has been invited to give more than 60 invited national and international presentations. Her research has impacted clinical care by examining the cost of screening test and testing strategies for type 2 diabetes. She has also examined the link between childhood obesity and timing of pediatric pubertal development and growth as well as additional chronic disease risk factors. Additionally, Dr. Lee examines health outcomes, quality improvement, and participatory design for children with type 1 diabetes. She is looking at involving and utilizing the tools of mobile technology for data collection and social media for engaging patients throughout the research continuum. Dr. Lee's research has been well funded over time from a variety of resources including foundation awards, consortium funding, and numerous NIH funded awards in which she is the principal investigator and/or co-investigator.

Recent and Significant Publications:

Lee JM, Eason A, Nelson C, Kazzi NG, Cowan AE, Tarini BA: Screening practices for identifying type 2 diabetes in adolescents. *J Adolesc Health* 54:139-143, 2013.

Wu E, Kazzi N, Lee JM: Cost-effectiveness of screening strategies for identifying pediatric diabetes and dysglycemia. *JAMA Pediatr* 167:32-39, 2013.

Lee JM, Sundaram V, Sanders L, Chamberlain L, Wise P: Health care utilization and costs of publicly-insured children with diabetes in California. *J Pediatr* 2015 May 28. doi: 10.1016/j.jpeds.2015.04.067. [Epub ahead of print]

Lee JM, Hirschfeld E, Wedding J: A patient-designed do-it-yourself mobile technology system for diabetes: Promise and challenges for a new era in medicine. *JAMA* 315:1447-1448, 2016.

Lee, JM, Wasserman R, Kaciroti N, Gebremariam A, Steffes J, Dowshen S, Harris D, Serwint J, Abney D, Smitherman L, Reiter E, Herman-Giddens ME: Timing of puberty in overweight versus obese boys. *Pediatrics* 137:1-10, 2016.

Service: In the Division of Pediatric Endocrinology, Dr. Lee serves as the research and quality improvement director for the Pediatric Diabetes Clinic. She has served on a number of committees, including the Department of Pediatrics Database/Information Technology Working Group, the Emerging Technologies Task Force, and the Instructional/Research Track Promotions Committee. At the health system level, she has been a member of the Diabetes Quality Management Committee and the Childhood Obesity Quality Management Committee. Nationally, Dr. Lee has served as an elected member of the Executive Committee of the Section on Endocrinology for the American Academy of Pediatrics, as a representative for the Pediatric Endocrine Society for Developing an Obesity Quality Improvement module for the American Board of Pediatrics for Maintenance of Certification, as a member of the Epic Pediatric

Endocrinology Steering Committee, and she has served as a grant reviewer for NIH study sections and private foundations. From 2007 to 2013, she was an editorial board member for the peer-reviewed journal *JAMA Pediatrics* and since 2013, she has served as the web and social media editor for the journal. In tandem with her academic work in design and innovation, she has also sponsored community events focused on patient-centered design, bringing together a diverse group of healthcare, design and technology stakeholders to create technology-based tools and educational materials for the Pediatric Diabetes clinic.

Professional Work: Dr. Lee attends on the inpatient Pediatric Endocrinology service, and sees outpatients in the Pediatric Diabetes Clinic. As the research director and quality improvement (QI) director for the Pediatric Diabetes Clinic, she works with the Pediatric Endocrinology faculty and staff to manage patients through the diabetes QI registry. Dr. Lee also works on the implementation of quality improvement interventions to improve patient outcomes in diabetes. She brings innovation to the clinic through the creation of a novel mobile gaming curriculum to teach children about self-management of diabetes using game play mechanics. This game is being introduced as a peer-to-peer group educational gaming experience, which is now incorporated as part of the regular medical visit for diabetes follow-up care in her clinic. In 2016, to recognize Dr. Lee's contributions to quality and cost-effective care in Pediatric Endocrinology she was the first recipient of the Paul Kaplowitz, M.D. Endowed Lectureship, an award that was created by the American Academy of Pediatrics and the Pediatric Endocrine Society.

External Reviewers:

Reviewer A: "She has developed specialized expertise in human centered design and its application to health care research and delivery. With this important combination of skills, she has developed a fruitful and wide ranging research program. Since her promotion to Associate Professor, she has received ongoing funding for her research program from a diverse set of federal agencies including the NIH, AHRQ, and the Patients Centered Outcome Research institute....She is seen as the go to individual for people who are interested in using social network and other media, as well as user centered design to improve care for children in adolescents with chronic illness."

Reviewer B: "She is also an expert in the application of social media and design to improve management of chronic disease. Dr. Lee has also received an impressive array of extramural funding from the National Institutes of Health, the Agency of Healthcare Research and Quality, as well as the Patient Centered Outcomes Research Institute....Dr. Lee also demonstrates excellent clinical care and is a well-respected clinician and teacher. She has a popular clinic at the University of Michigan. Dr. Lee's service to the professional and university community is outstanding."

Reviewer C: "She has been prolific over her career both in terms of publications as well as grant funding. Her observational study of puberty in obese and non-obese boys is, in my opinion, her most significant contribution to science at present... Joyce is one of the few pediatric endocrinology health services researchers (she may be the only one but I don't want to overlook anyone) at her stage of training. This makes comparison to other, similar researchers challenging,

but even comparing her to the larger university of general pediatric health services researchers she is most worthy of this promotion.”

Reviewer D: “She has developed a unique focus on user centered design and innovation and has made a real mark for herself in this area. The quality of her thinking and teaching is outstanding and she is advancing the field of participatory design in pediatric health care. She is clearly one of the leaders in this new and important domain. I was particularly impressed by the breadth and quality of her capabilities, as well as her productive research accomplishments.”

Reviewer E: “Overall, I feel she is a superstar. She is a true leader in her field and has received grant funding to perform studies on innovative approaches to type 1 diabetes. Her most recent NIH grant centers on conventional and metabolomics predictors of pre-diabetes and diabetes, a very ‘hot’ topic currently and one that we know little about....I feel that Dr. Lee is exceptional and her scholarly activity and contributions to pediatric endocrinology rank in the top 10% of pediatric endocrinologists.”

Summary of Recommendation:

Dr. Lee is an exceptional, collegial, and dynamic faculty member. She has focused her productive research on childhood obesity and diabetes. She is highly regarded by her peers and serves the University with distinction. We enthusiastically support Joyce M. Lee, M.D. for promotion to professor of pediatrics and communicable diseases, with tenure, Department of Pediatrics and Communicable Diseases, Medical School, and professor of nutritional sciences, without tenure, Department of Nutritional Sciences, School of Public Health.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School



Martin A. Philbert, Ph.D.
Dean, School of Public Health

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