PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Tae-Hwa Chun, M.D., Ph.D., assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

Ph.D.	1998	Graduate School of Medicine, Kyoto University, Kyoto, Japan
M.D.	1992	Kyoto University, Faculty of Medicine, Kyoto, Japan

Professional Record:

2008-2009	Associate Professor, Frontier Research Initiative, Institute of Medical Science, University of Tokyo (IMSUT)
2007-present	Assistant Professor of Internal Medicine, University of Michigan
2004-2005	Research Investigator, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Chun is a devoted and very active educator both in the clinical setting and in the laboratory. His teaching activities are comprised of research education to undergraduate students, rotating graduate students, and post-doctoral research fellows in the laboratory setting, and clinical teaching to medical students, residents and fellows in the hospital setting. He also participates with the Undergraduate Research Opportunity Program and accepts visiting medical students to rotate with him from the University of Michigan's Global Reach Program. These students come from outside institutions including Kyoto University and Okayama University in Japan. He has also supervised an internal medicine resident from the Detroit Medical Center for her summer research project. He is a thesis committee member for a graduate student.

Research: Dr. Chun is an exceptional scientist with national and international recognition who has been investigating the role of extracellular matrix (ECM) proteins and adipose tissue and their role in diabetes. He has published 37 manuscripts in high impact peer-reviewed journals (14 as first or senior author), two book chapters, and 20 abstracts. Dr. Chun also has three additional senior author papers in submission. In 2010, Dr. Chun was granted a patent. Dr. Chun's work has been well funded throughout his career, and he is presently the principal investigator on an R01 funded by the NIH, has another two major NIH grants pending, and has been a previous award recipient of a K08 grant. He was also the past recipient of the American Heart Association (AHA) Career Development Award as well as the ASCI Young Investigator Award. Dr. Chun's national reputation is recognized by his numerous extramural invited presentations, 17 since his last promotion, and many of which have been at international venues. He is also a member of the editorial board for the journal *Adipocyte*.

Recent and Significant Publications:

Chun TH, Inoue M, Morisaki H, Yamanaka I, Miyamoto Y, Okamura T, Sato-Kusubata K, Weiss SJ: Genetic link between obesity and MMP14-dependent adipogenic collagen turnover. *Diabetes* 59:2484-2494, 2010. PubMed PMID: 20660624; PubMed Central PMCID: PMC3279534.

Sato-Kusubata K, Jiang Y, Ueno Y, Chun TH: Adipogenic histone mark regulation by matrix metalloproteinase 14 in collagen-rich microenvironments. *Mol Endocrinol* 25:745-753, 2011. PubMed PMID: 21436261; PubMed Central PMCID: PMC3082327.

Inoue M, Jiang Y, Barnes RH 2nd, Tokunaga M, Martinez-Santibañez G, Geletka L, Lumeng CN, Buchner DA, Chun TH: Thrombospondin 1 mediates high-fat diet-induced muscle fibrosis and insulin resistance in male mice. *Endocrinology* 154:4548-4559, 2013. PubMed PMID: 24140711; PubMed Central PMCID: PMC3836064.

Tokunaga M, Inoue M, Jiang Y, Barnes RH 2nd, Buchner DA, Chun TH: Fat depot-specific gene signature and ECM remodeling of Sca1(high) adipose-derived stem cells. *Matrix Biol* 2014 Jun;36:28-38, 2014. PubMed PMID: 24726953; PubMed Central PMCID: PMC4127346.

Inoue M, Akama T, Jiang Y, Chun TH: The exocyst complex regulates free fatty acid uptake by adipocytes. *PLoS One* 10:e0120289, 2015. PubMed PMID: 25768116; PubMed Central PMCID: PMC4359155.

Service: Dr. Chun is regarded as a dedicated and skilled physician who is active in clinical care. He sees patients in the MEND general endocrinology clinic. His clinical expertise is in improving the management of patients with endocrine disorders. He is also well regarded by those he mentors both in the clinical and research settings. Dr. Chun plays a significant service role within the institution, the Department of Internal Medicine, and the division. He has served as a member on many committees including the Senate Advisory Committee, the Communication Advisory Committee, and the Development Advisory Committee of the University of Michigan. Dr. Chun has also served as ad hoc reviewer for journals such as *EMBO Journal*, *FASEB Journal*, *EMBO Reports*, *Molecular and Cellular Biology*, and *Obesity*. He also periodically joins study sections for organizations such as the Medical Research Council (MRC) Research Grant Review and FWF Austrian Science Fund Grant Review. In 2014, he served as ad hoc reviewer of the study section of the NIH (NIDDK) Special Emphasis Panel Council. Most recently, he served as ad hoc grant reviewer for the Muscular Dystrophy Campaign, Ireland (2015), and had peer-review service for the *European Journal of Pharmacology*, *Scientific Reports*, and *Frontiers in Endocrinology*.

External Reviewers:

Reviewer A: "He is invited to present his findings in national forums and is recognized as [an] established contributor to adipocyte biology as indicated by editorial board membership in the journal 'Adipocyte.' I believe Dr. Chun has uncovered a very novel and demonstrably important

aspect of adipose tissue development relevant to obesity and is pursuing the underlying mechanisms in an effective manner."

Reviewer B: "Dr. Chun is clearly an accomplished scholar in discovery. He has a strong bibliography and is a leader in the field."

Reviewer C: "As Dr. Chun's work develops, I foresee it having a significant impact on how we, in the larger adipocyte biology community, conduct our studies. Dr. Chun's research program has been supported by NIH as well as foundations such as the ADA. In this most challenging time for research funding he has managed to succeed; a testament to his hard work and how his peers see his work and future directions."

Reviewer D: "Dr. Chun is an outstanding researcher who does impactful research. In a remarkably short time, Dr. Chun has established a reputation as one of the top researchers in the field of ECM modeling and regulation of adipose function as it pertains to obesity, insulin resistance and type 2 diabetes. I would rank him in the top 10% of peers in this field....in Dr. Chun you have one of the up and coming leaders in the field with a strong international reputation. I believe that Dr. Chun has a record of achievement and recognition in Metabolism, Endocrinology and Diabetes research that is outstanding."

Reviewer E: "[Dr. Chun] strikes me as a bright, creative, hard-working and dedicated investigator. He has already produced a strong and cohesive body of work impacting the field of extracellular matrix components and type 2 diabetes."

Summary of Recommendation:

Dr. Tae-Hwa Chun is an innovative and inspired faculty member. He is a novel scholar who is highly regarded by the national research community. He serves the university with distinction, has demonstrated academic leadership, and is an outstanding mentor. Therefore, I enthusiastically recommend the promotion of Tae-Hwa Chun, M.D., Ph.D. to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Marschall Runge

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

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