

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF CELL AND DEVELOPMENTAL BIOLOGY

Jiandie Lin, Ph.D., assistant professor of cell and developmental biology, Medical School, is recommended for promotion to associate professor of cell and developmental biology, with tenure, Department of Cell and Developmental Biology, Medical School [also being promoted to research associate professor, Life Sciences Institute].

Academic Degrees:

Ph.D.	2000	Northwestern University
B.S.	1994	Peking University

Professional Record:

2005-present	Assistant Professor of Cell and Developmental Biology, University of Michigan
2005-present	Research Assistant Professor, Life Sciences Institute, University of Michigan
2003-2005	Instructor, Department of Cell Biology, Harvard Medical School

Summary of Evaluation:

Teaching: Dr. Lin is involved extensively in classroom and laboratory teaching. In addition, he serves on several dissertation committees. He conducts lectures for CDB530 (Cell Biology), CDB680 (Organogenesis of Complex Tissues) and CDB580 (Developmental Biology). He also is a guest lecturer for Physiology591 and has supervised the MI medical histology laboratories. For CDB530, Dr. Lin incorporated a new topic--cell biology of mitochondria and cellular energy metabolism. Dr. Lin has also served as a faculty evaluator for the cell and molecular biology graduate student seminars for the past four years. In addition to Dr. Lin's classroom instruction, he is very involved in teaching in his laboratory, giving hands on experience to postdoctoral fellows, graduate and undergraduate students, as well as research technicians. He has mentored five postdoctoral fellows (of the five, three are current) and one research track faculty member. Also, Dr. Lin mentors three graduate students. One of his students was awarded an American Heart Association pre-doctoral fellowship. She recently presented her work at the annual meeting of the Society for Research on Biological Rhythms. Dr. Lin has served or continues to serve on 12 graduate dissertation committees (including the three students from his laboratory). In addition, he served on nine Ph.D. candidacy examination committees.

Research: The central theme of Dr. Lin's research program is to elucidate the mechanisms that regulate energy metabolism in normal and disease states, and to identify therapeutic targets for the treatment of obesity and type 2 diabetes, which is a major global public health challenge. Since joining the University of Michigan, Dr. Lin and his lab have made several important discoveries. They discovered that transcriptional coactivator PGC-1 α is a key component of the

largely elusive regulatory network that controls circadian metabolic rhythm. They revealed that PGC-1 α /ROR α functions to integrate tissue energy metabolism with biological clock. He developed a genome-wide coactivation tool to globally identify transcriptional regulators that impinge on glucose, lipid, and mitochondrial oxidative metabolism and discovered that BAF60a, a regulator of chromatin-remodeling, is essential for hepatic fat oxidation. He found that hepatic PGC-1 α regulates genes that are responsible for the production and removal of this metabolite. He also discovered PGC-1 β and its target gene ApoC3 as a novel pathway that mediates the therapeutic action of niacin, a widely used drug to lower plasma triglyceride levels. He demonstrated that niacin suppresses hepatic PGC-1 β and ApoC3 through crosstalk with adipose tissue, leading to improved lipid profiles. Based on this work, Dr. Lin has published in many high ranking journals including *Proceedings of the National Academy of Science USA* and *Nature*. He is sought after as a speaker at international and national conferences as well as public and private academic institutions.

Recent and Significant Publications:

Lucas EK, Markwardt SJ, Gupta S, Meador-woodruff JH, Lin JD, Overstreet-Wadiche L, Cowell RM: Parvalbumin deficiency and GABAergic dysfunction in mice lacking PGC-1 α . *J Neurosci* 30:7227-7235, 2010.

Hernandez C, Molusky M, Li Y, Li S, Lin JD: Regulation of hepatic ApoC3 expression by PGC-1 β mediates hypolipidemic effect of nicotinic acid. *Cell Metab* 2010 (in press).

Li S, Erland E, Liu C, Vitvitsky V, Hernandez C, Banerjee R, Bottiglieri T, Lin JD: Regulation of homocysteine homeostasis through the transcriptional coactivator PGC-1 α . *Am J Physiol Endo Metab* 296:E543-548, 2009.

Li S, Liu C, Li N, Hao T, Han T, Hill DE, Vidal M, Lin JD: Genome-wide coactivation analysis of PGC-1 α identifies BAF60a as a regulator of hepatic lipid metabolism. *Cell Metabolism* 8:105-117, 2008.

Liu C, Li S, Liu T, Borjigin J, Lin JD: Transcriptional coactivator PGC-1 α integrates mammalian clock and energy metabolism. *Nature* 447:477-481, 2007.

Service: Dr. Lin is chair of the CDB Seminar Committee, and is also a member of the CDB Executive Committee. He has served on the Faculty Search Committee in CDB and the Admissions Committee in both CDB and Cellular and Molecular Biology (CMB). He currently serves on the CMB Graduate Program Committee. Dr. Lin is a member of the American Diabetes Association and the Endocrine Society. He provides peer-review service for various journals and is a grant reviewer for the American Diabetes Association as well as an *ad hoc* grant reviewer for the Burroughs Wellcome Fund and the National Science Foundation.

External Review:

Reviewer A: “Jiandie Lin is an exceptional scientist. He thinks creatively and has developed a great many skills. He works in an area that has the potential of having a large impact on metabolic diseases, which I view as the main public health challenge to our society...His accomplishments in the last few years are remarkable by any standard, and denote a keen eye for critical research questions and strong leadership qualities...He is an outstanding candidate for this appointment and one of the top scientists in this keenly competitive field.”

Reviewer B: “...I consider him to be in the top 2% when compared to his peers at similar stages of career development. Not only are his scientific contributions of very high quality but his CV indicates that he has been able to secure some independent funding from the NIH and has also contributed importantly as a teacher and educator, making him an outstanding scientist in this area, recognized in the US and abroad.”

Reviewer C: “Dr. Lin’s years as an Assistant Professor have been characterized by a number of high impact papers, justifiably published in the most prominent journals....I should note that he has spoken several times at the Keystone Conference on Diabetes and Metabolism, which is generally agreed on as the major international conference presenting the latest developments in metabolic disease.”

Reviewer D: “...he may be among the most versatile scientists [of his cohort] in diabetes research today, as is evident from his impressive record of accomplishment...He has an open and inquisitive mind, and is sure to continue as a major contributor to our field.”

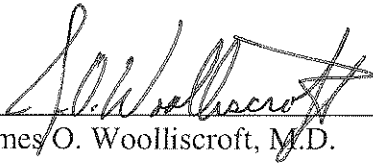
Reviewer E: “...Jiandie has clearly established a presence as an independent PI as reflected by his publication record, his invitations to speak at nationally-recognized meetings and universities, and his invitation to write reviews and ‘news and views’-like articles...Jiandie has acquired and maintained an excellent extramural funding portfolio that would be the envy of anyone being promoted to Associate Professor. His potential to maintain this funding is also excellent, based both on his track record and his research program.”

Reviewer F: “Based on his exceptional track record and performance over the last 5 years, I strongly recommend Jiandie Lin for promotion to Associate Professor with tenure. He has all the right ingredients to become a leader in his field.”

Reviewer G: “Dr. Lin brings a remarkable amount of enthusiasm, productivity and expertise to his research endeavors, and represents the high quality of scientific achievement that befits a promotion to the next level. I therefore support his promotion, and I am looking forward to many more groundbreaking findings from the Lin laboratory.”

Summary of Recommendation:

Dr. Lin has achieved a consistent record of exceptional scholarship and funding since coming to Michigan. The high quality of his research is recognized by colleagues here as well as at other premier institutions. His expertise in metabolism and transcriptional regulation and his extremely strong publication record are widely acknowledged. He is an excellent teacher and mentor. Dr. Lin has assumed many administrative responsibilities within the University, including chairing as well as serving on numerous committees in the Department of Cell and Developmental Biology. I am pleased to recommend Dr. Jiandie Lin for promotion to associate professor, with tenure, in the Department of Cell and Developmental Biology.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2011