

PROMOTION RECOMMENDATION  
UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF MOLECULAR AND INTEGRATIVE PHYSIOLOGY

Liangyou Rui, Ph.D., associate professor of molecular and integrative physiology, with tenure, Department of Molecular and Integrative Physiology, Medical School, is recommended for promotion to professor of molecular and integrative physiology, with tenure, Department of Molecular and Integrative Physiology, Medical School.

Academic Degrees:

Ph.D.	1998	University of Michigan
M.S.	1990	Institute of Basic Medical Sciences, Peking Union Medical College and Chinese Academy of Medical Sciences
B.S.	1987	East China Normal University

Professional Record:

2008-present	Associate Professor of Molecular and Integrative Physiology, University of Michigan
2002-2008	Assistant Professor of Molecular and Integrative Physiology, University of Michigan
1/1990-8/1993	Research Investigator and Instructor, Department of Physiology, Shanghai Medical University, Shanghai, P. R. China

Summary of Evaluation:

Teaching: Dr. Rui has served as course director for Physiology 591 (Special Topics in Signal Transduction and Endocrinology) with eight hours of lecture and four hours of student presentation/discussion annually since 2006. He also presents five lectures annually for the School of Dentistry IMS II (Respiratory Systems Module). He has mentored nine post-doctoral fellows and one Ph.D. student, who obtained an independent F31 NRSA award and published three first-author papers. Four other graduate students have performed research rotations in his laboratory along with several undergraduates and high school students. He has served on 11 dissertation committees and 15 preliminary examination committees.

Research: Dr. Rui's external funding record is outstanding. He is currently the principal investigator of three active R01 grants (end dates of 4/30/2013, 3/31/2017, and 6/30/2016) and has a new R01 to be reviewed. He has published a total of 51 peer-reviewed papers and one book chapter. Of these, about 25 are independent of his former predoctoral and postdoctoral mentors and 17 have been published during his four year tenure as Associate Professor, with five additional manuscripts submitted. Many of his papers have been published in the highest

echelon of journals including *Nature Medicine*, *Cell Metabolism*, *Molecular and Cellular Biology*, and *Journal of Biological Chemistry*. He gives approximately 4-5 external seminars per year, half of which represent international invitations. Based on his expertise in the area of diabetes, he serves on two study sections: 1) Research Grant Review Committee of the American Diabetes Association, 2) Veterans Administration Merit Review (Endo-A). In addition, Dr. Rui holds two patents based on his research. Also, Dr. Rui's research has become more related to metabolic effects and regulation in the liver, and he has been actively involved with the Gastroenterology Division Peptide Center NIH-supported effort.

#### Recent and Significant Publications:

Morris DL, Cho KW, Zhou Y, Rui L: SH2B1 enhances insulin sensitivity by both stimulating the insulin receptor and inhibiting tyrosine dephosphorylation of insulin receptor substrate proteins. *Diabetes* 58:2039-2047, 2009.

Song W, Ren D, Li W, Jiang L, Cho KW, Huang P, Fan C, Song Y, Liu Y, Rui L: SH2B regulation of growth, metabolism, and longevity in both insects and mammals. *Cell Metab* 11:427-437, 2010.

Cho KW, Zhou Y, Sheng L, Rui L: Lipocalin-13 regulates glucose metabolism by both insulin-dependent and insulin-independent mechanisms. *Mol Cell Biol* 31:450-457, 2011.

Sheng L, Cho KW, Zhou Y, Shen H, Rui L: Lipocalin 13 protein protects against hepatic steatosis by both inhibiting lipogenesis and stimulating fatty acid  $\beta$ -oxidation. *J Biol Chem* 286:38128-38135, 2011.

Sheng L, Zhou Y, Chen Z, Ren D, Cho KW, Jiang L, Shen H, Sasaki Y, Rui L: NF- $\kappa$ B-inducing kinase (NIK) promotes hyperglycemia and glucose intolerance in obesity by augmenting glucagon action. *Nat Med* 18:943-949, 2012.

Service: Dr. Rui serves on the editorial boards of three journals: *American Journal of Physiology-Endocrinology Metabolism* (for which he was honored as its Star Reviewer in 2009), *Journal of Biological Chemistry*, and *Endocrinology*. He also conducts various ad hoc reviews for other journals and grant reviews for various national and international funding organizations. Notably, he organized and chaired the University of Michigan-Wayne State University Physiology Symposia in 2011 and 2012. He also served on the Biomedical Research Council (2008-2011), organized the Obesity, Diabetes and Metabolic Disease Club in 2010-2011, and regularly participates in graduate school recruiting events and interviews.

#### External Reviewers:

Reviewer A: "He has made original contributions to a keenly competitive area, and has maintained a funding and academic record that are fully deserving of the recognition that comes from this promotion....The breadth, experimental rigor and information content of Liangyou's papers are remarkable....I have no doubt that he would be promoted to a similar rank at my institution."

Reviewer B: “His publications have appeared in very high-quality journals and his national/international reputation is evidenced by his numerous invited speaking engagements at excellent institutions in the US and abroad. He currently maintains three R01 research grants from NIH, which in this environment is really quite remarkable. I note further that his CV indicates continued high levels of teaching and mentoring, as well as substantial service to his institution and discipline.”

Reviewer C: “Liangyou has focused on a very important aspect of disease, namely metabolism that affects a growing epidemic of obesity and diabetes. It is clear from the CV that given the high quality peer-reviewed publications and the multiple continued NIH grants that Rui is indeed a leader in this field.”

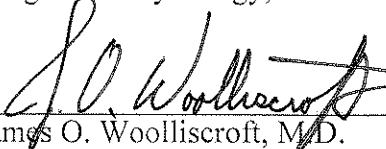
Reviewer D: “I am able to state with absolute certainty that Dr. Rui is an extraordinarily [sic] and exceptional individual, whose ground-breaking research activities have already generated and will continue to generate novel and critical findings in several areas of metabolism, diabetes and obesity research.”

Reviewer E: “I believe that Dr. Liangyou Rui is among the top few individuals worldwide in his research area. He has provided extraordinary, original, creative, and seminal advances in the fields of obesity and diabetes at a steady pace that only promises to increase in the future....I fully expect that Dr. Rui’s impressive achievements will only grow further and faster in the future to bring more credit to your medical school.”

Reviewer F: “I am an active researcher in the field of NF-kB and metabolic diseases and can state unequivocally that his work is internationally recognized and has contributed significantly to advancing our knowledge in this area.”

Summary of Recommendation:

Dr. Rui is a highly valued colleague in the Department of Molecular and Integrative Physiology. He has an outstanding record of scholarship, which is still on an increasing trajectory. He has made valuable contributions to the areas of teaching (with an emphasis on postdoctoral training in his laboratory) and service. I am pleased to recommend Liangyou Rui, Ph.D. for promotion to professor of molecular and integrative physiology, with tenure, Department of Molecular and Integrative Physiology, Medical School.

  
James O. Woolliscroft, M.D.  
Dean  
*Lyle C. Roll Professor of Medicine*

May 2013