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

Approved by the Regents May 21, 2015

Xiaochun Yu, M.D., Ph.D., associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School, is recommended for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

Ph.D.	2002	Kurume University, Kurume City, Fukuoka Japan
M.D.	1996	Beijing Medical University, Beijing Post, Haidian District China

Professional Record:

2011-present	Associate Professor of Internal Medicine, University of Michigan
2006-2011	Assistant Professor of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Yu is committed to advancing the knowledge of students and peers. This is evidenced through his participation in the Undergraduate Research Opportunity Program, the Cell and Molecular Biology Program, and frequent invitations to speak at prestigious scholarly meetings. He also contributes to classroom and laboratory teaching, has served as a faculty advisor on several dissertation committees, and is involved in didactic clubs and research symposiums across the institution. He has devoted time to recruiting students into various training programs including the Internal Medicine Physician Scientist Program and the Cellular and Molecular Biology Graduate Program. He has experience teaching undergraduate and graduate students, visiting scholars, and is the current mentor to eight post-doctoral fellows within his laboratory.

Research: Dr. Yu is an outstanding investigator in the field of cancer biology. He has made novel discoveries in his studies of DNA damage response and its role in tumorigenesis. He is an internationally renowned scholar and his expertise is frequently sought after by other colleagues within the field. In 2011, Dr. Yu was elected into the American Society for Clinical Investigation. Dr. Yu has maintained an excellent record of competitive funding. He currently has five R01grants from the NIH of which he is the principal investigator on three of them. He also receives funding from the Department of Defense and the Leukemia and Lymphoma Society. He is the recipient of many impressive awards, including the American Cancer Society Research Scholar Award, the American Association for Cancer Research Susan G. Komen Career Development Award, and the Era of Hope Scholar Award from the Department of Defense. Dr. Yu has published 52 peer-reviewed publications in high impact journals such as *Nature* and *Cancer Cell*.

Recent and Significant Publications:

Li M, Lu L, Yang C, Wang S, Yu X: The FHA and BRCT domains recognize ADP-ribosylation during DNA damage response. *Genes&Development* 27:1752-1768, 2013.

Li M, Yu X: Function of BRCA1 in the DNA damage response is mediated by ADP-ribosylation. *Cancer Cell* 23:693-704, 2013.

Chen Q, Chen Y, Bian C, Fujiki R, Yu X: TET2 promotes histone O-GlcNacylation during gene transcription. *Nature* 493:561-564, 2013.

Zhang F, Chen Y, Li M, Yu X: The OB-fold motif is a poly(ADP-ribose)-binding domain that mediates DNA damage response. *Proc Natl Acad Sci* 111:7278-7283, 2014.

Chen Y, Chen Q, McEachin RC, Cavalcoli JD, Yu X: H2A.B facilitates transcription elongation at methylated CpG loci. *Genome Research* 24:570-579, 2014.

Service: Dr. Yu provides invaluable service to the university. He is a member of the Cancer Genetic Program and a member of the Cancer Biology Program. He participates in group meetings on genome instability and phosphate research in the Department of Human Genetics, the University of Michigan Comprehensive Diabetes Center, and the University of Michigan Comprehensive Cancer Center. Nationally, he is a member of the editorial board for the *Journal of Biological Chemistry*, a scientific reviewer for the NIH Special Emphasis Panel, and provides ad hoc journal reviews for *Nucleic Acid Research*, *Cell Cycle*, *Cell Reports*, *EMBO Report*, *Cancer Research*, and *Oncogene*.

External Reviewers:

Reviewer A: "He has broad knowledge and thorough command of cell biology, molecular biology, and genomics. He is eager to learn chemistry and chemical modifications…He is innovative, deep, and a brilliant scholar….In Dr. Yu, you have a proven scholar who will continue to be innovative and generate new scientific discoveries that will influence others."

Reviewer B: "There are at least two areas of research to which Dr. Yu has made seminal contributions: the biochemistry of BRCT domains and the chromatin response to genomic stress. He is an internationally recognized leader in the field of the DNA damage response…there is no doubt that Dr. Xiaochun Yu is an outstanding scientist and a recognized leader in the field of genomic stability. What is extremely impressive is that he appears to be on an upward trajectory and I strongly believe that he will continue to make more seminal discoveries…"

Reviewer C: "As a colleague of Dr. Yu's in the DNA damage response field, I consider him a top-tier investigator, an emerging leader, and a highly recognized expert on epigenetic studies in the broad field of genomic instability and cancer biology…in my opinion, Dr. Yu's laboratory is among the top 10 groups that, within the past 5 years, have made the most significant contributions to advance the field of DNA damage response. This is demonstrated fully by an outstanding repertoire of top quality publications, reviews, and invited speeches at major conferences and premier institutions…I have followed his papers for many years and have benefited intellectually and tangibly from new ideas derived from his findings…I believe that Dr. Yu is an exceptionally talented and accomplished scholar in the genomic instability and cancer biology field."

Reviewer D: "Understanding the DNA damage response (DDR) is critical for refining cancer treatment modalities. Revealing the mechanisms that maintain genomic stability has thus turned into a forefront field in biomedical research…I can say without hesitation that Dr. Yu has laid a highly significant mark on this field and has established himself as an undisputable leader in this bustling, competitive area of research…he has been among the pioneers in understanding the role of protein

ubiquitination in the DDR, and has identified key proteins in this process…Dr. Yu's extensive list of publications since he established his lab in Michigan is simply outstanding. It reveals an uncompromising drive for ground-breaking, top-level research. The work reflected in these papers is always original, thoughtful, and carried out at top technical quality…No less impressive is Dr. Yu's list of research grants. With four active R01 grants and 5 other grants from competitive sources, Dr. Yu's achievement in securing funding for his lab is truly remarkable..."

Reviewer E: "After establishing his own laboratory at the University of Michigan, Dr. Yu quickly established himself as a rising star in the highly competitive field of DNA damage and checkpoint signaling, and also started to expand his research into the new area of chromatin remodeling and epigenetics. The pace of discovery from his laboratory has accelerated in recent years, with a level of productivity that is almost unprecedented based on my own experiences in elevating many scientists in a similar stage of career development as Dr. Yu…this fact testifies to the high originality and paradigm-shifting type of research done by Dr. Yu as a leader in those fields, an outstanding achievement that is also fully recognized by his peers in the form of awarding him with four NIH R01 grants in such a difficult funding climate and a critical indication that his research will continue to flourish with a positive trajectory!"

Reviewer F: "I would rank Xiaochun as an excellent candidate for promotion. This is based on his achievements in studies of DDR, cancer and epigenetics, as well as his competitiveness for obtaining external grants. Indeed, his research is outstanding and forefront at the international level. I believe that his promotion will benefit the research and teaching of University of Michigan, as his research lies in the center of medical problems of human beings, linking cancer and general pathogenesis."

Reviewer G: "I noticed that most of his postdoctoral fellows have published first-author papers in internationally renowned journals, which directly reflects the time and efforts of Dr. Yu spent on each of his trainees."

Summary of Recommendation:

Dr. Yu is an exceptional scientist who is dedicated to academic medicine. His productivity in obtaining extramural funding and his ability to generate scholarly articles on his research findings place him in the upper echelons of his field. He is a demonstrated leader amongst his peers and has been heavily recruited to other institutions given his outstanding record of achievements. He will continue to make important scholarly contributions and is considered an asset to the division, the department and the university. For these reasons, I strongly recommend Xiaochun Yu, M.D., Ph.D. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

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

May 2015