

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF PATHOLOGY  
DEPARTMENT OF BIOLOGICAL CHEMISTRY

Yali Dou, Ph.D., associate professor of pathology, with tenure, Department of Pathology, and associate professor of biological chemistry, without tenure, Department of Biological Chemistry, Medical School, is recommended for promotion to professor of pathology, with tenure, Department of Pathology, and professor of biological chemistry, without tenure, Department of Biological Chemistry, Medical School.

Academic Degrees:

Ph.D.	2000	University of Rochester, Rochester NY
M.S.	1998	University of Rochester, Rochester NY
B.S.	1996	Beijing Medical University, China

Professional Record:

2012–present	Associate Professor of Pathology and Associate Professor of Biological Chemistry, University of Michigan
2006–2012	Assistant Professor of Pathology and Assistant Professor of Biological Chemistry, University of Michigan

Summary of Evaluation:

Teaching: Dr. Dou has made a considerable commitment to education. This involves mainly instructing graduate students in formal lecture and seminar presentations, in both biological chemistry and pathology and mentoring of undergraduate students, graduate students, and post-doctoral fellows in the laboratory. She has also served on numerous doctoral committees. She has also been a member of the Molecular and Pathology Ph.D. Program Preliminary Exam Committee which involves mock grant proposals on topics unrelated to the student's primary research. In all of these areas, Dr. Dou is recognized by her students as a highly motivated, dedicated, and effective educator.

Research: Dr. Dou has concentrated on the field of histone modifying enzymes including the regulation of histone methyltransferase MLL. She and her collaborators have solved the crystal structure of this complex, and they have developed a specific inhibitor. More recently, her research has expanded to other histone modifying enzymes, such as histone acetyltransferase MOF and histone methyltransferases PRDM3 and PRDM16. The results of her work have led to 35 publications in high-impact peer-reviewed journals since her last promotion, for which she has been the senior author on 10 and the first author on another. These journals include *Cell Research*, *Stem Cell*, *Molecular Cell*, *Immunity*, and *Nature*. Her work has been continually funded by long term grant support from the NIH with several R01 grants. In addition, she has been invited to present her work in 31 lectures and seminars throughout the United States and abroad, including venues in Denmark, China, and Italy. She has presented at a Keystone Symposium, a Gordon Conference, and

the American Association for Cancer Research. She has been given the Dean's Award in Basic Sciences and has been inducted into the University of Michigan Medical Center League of Research Excellence. She was also given a Leukemia and Lymphoma Society Scholar Award in 2012.

Recent and Significant Publications:

Li X, Li L, Pandey R, Byun JS, Gardner K, Qin Z, Dou Y: The histone acetyltransferase MOF is a key regulator of the embryonic stem cell core transcriptional network. *Cell Stem Cell* 11:163-178, 2012.

Wu L, Lee SY, Zhou B, Nguyen UT, Muir TW, Tan S, Dou Y: ASH2L regulates ubiquitylation signaling to MLL: trans-regulation of H3 K4 methylation in higher eukaryotes. *Mol Cell* 49: 1108-1120, 2013.

Cao F, Townsend EC, Karatas H, Xu J, Li L, Lee S, Liu L, Chen Y, Ouillette P, Zhu J, Hess JL, Atadja P, Lei M, Qin ZS, Malek S, Wang S, Dou Y: Targeting MLL1 H3K4 methyltransferase activity in mixed-lineage leukemia. *Mol Cell* 53:247-261, 2014.

Wu L, Li L, Zhou B, Qin Z, Dou Y: H2B Ubiquitylation Promotes RNA Pol II Processivity via PAF1 and pTEFb. *Mol. Cell* 54:920-931, 2014.

Zhang H, Gayen S, Xiong J, Zhou B, Shanmugam AK, Sun Y, Karatas H, Liu L, Rao RC, Wang S, Nesvizhskii AI, Kalantry S, Dou Y: MLL1 Inhibition Reprograms Epiblast Stem Cells to Naive Pluripotency. *Cell Stem Cell* 18:481-494, 2016.

Service: Dr. Dou has made a significant commitment to her profession. She has been or continues to be a member of several prestigious editorial boards. In addition, she has been an ad hoc reviewer for numerous other journals. She also has been a grant reviewer for the National Science Foundation of China, the NIH, the National Science Foundation, and organizations in Australia, the United Kingdom, and Belgium. At the University of Michigan, she has been involved in several committees including the Graduate Recruitment Committee and the Research Stimulatory Compensation Committee for the Department of Pathology and a Graduate Student Recruitment Committee for Biological Chemistry.

External Reviewers:

Reviewer A: "Dr. Dou is a well-established international expert in epigenetic regulation in normal and disease biology. In recent years she has made seminal contributions to our understanding of basic nuclear signaling events in normal (ES and T cells) and cancer biology with important and ground breaking translational potential... I rate Dr. Dou as one of the leaders in modern molecular epigenetic research. She serves on multiple grant panel reviews, reviews extensively for peer review journals and is an invited speaker at some of the best international research conferences in our field."

Reviewer B: "Dr. Dou has established a highly productive, impactful research program at the University of Michigan focused on epigenetic signaling. She is productive both in number of publications as well as, more importantly, in the quality of her publications... She has an outstanding national and international reputation, as demonstrated by the demand for her to speak

both at specific universities as well as at meetings. I would place Dr. Dou among the top 5% of the scientific community. Her work is thorough, insightful, and always technically well executed.”

Reviewer C: “Dr. Dou is an outstanding researcher who continues to make seminal discoveries, and she is highly deserving of promotion... Dr. Dou would definitely meet the standards for promotion to Professor at my institution. She is well funded. She continues to make important discoveries, and she contributes to the core missions of scientific enquiry and education. She is highly collaborative as well.”

Reviewer D: “Dr. Dou is a productive and creative scholar, who has built impressive support for her research program and published a strong list of important papers in chromatin-based gene regulation... I am particularly impressed with both her scholarly work, and her drive to produce therapeutically meaningful approaches to cancer.”

Reviewer E: “The area of research that Dr. Dou is working in is extremely competitive; yet Dr. Dou has been quite successful mainly because of her fearlessness in the pursuit of her unique vision, which has provided deep mechanistic insights into multiple enzymatic complexes. She is no doubt one of the international leaders in the MLL field who has consistently made novel and important contributions that are moving the field in new directions. I have witnessed her beautiful presentations at conferences and impressed by the high quality of her research.”

Summary of Recommendation:

Dr. Dou is an internationally renowned scientist with expertise in chromatin biology and epigenetics, especially involving histone modifying enzymes. The impact of her work on the scientific community is very high as evidenced by her numerous invitations to speak and present seminars both in the United States and abroad. She is also a dedicated educator primarily for graduate students in formal courses and in the laboratory, and she has made significant commitments in time and energy to her profession, serving as a grant reviewer, on a number of editorial boards, an ad-hoc reviewer for journals, and numerous committees including those at the University of Michigan. I am pleased to recommend Yali Dou, Ph.D. for promotion to professor of pathology, with tenure, Department of Pathology, and professor of biological chemistry, without tenure, Department of Biological Chemistry, Medical School.



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

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