

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Sanjeevkumar R. Patel, M.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:

M.D.	1993	Wayne State University
M.S.	1987	University of Michigan
B.S.	1984	University of Michigan

Professional Record:

2005-present	Assistant Professor of Internal Medicine, University of Michigan
2000-2005	Clinical Lecturer, Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Patel is a dedicated educator and mentor. From the beginning of his career he has contributed to the growth of those in training. Starting in 1999, Dr. Patel has been an instructor of a small group of medical students in the nephrology sequence and currently leads this important part of the M2 curriculum. He also participates annually in this course by leading a pathology laboratory. Dr. Patel is also highly involved in the didactic teaching of nephrology fellows and gives them five annual lectures on several important topics in nephrology. He is one of the department's most engaging teachers and is highly regarded by fellows and by medical residents. Indeed, Dr. Patel always scores at the top of Internal Medicine faculty for both fellow and resident teaching. He is almost always a finalist for the fellows' teaching award, receives superb teaching scores from the residents, and was the top scoring faculty member in the graduating resident survey in 2010. Dr. Patel is also sought out by other institutions throughout the nation. He has given nine extramural presentations since the time of his appointment.

Research: Dr. Patel's research is currently focused on the epigenetics of gene regulation in the developing kidney as well as in cell signaling in developing epithelia. His work has resulted in 45 peer-reviewed publications with 11 of them since his appointment to assistant professor. His recent work was the first to establish the role of epigenetics in the areas of kidney development, aging and disease. He has had several very high profile papers as first author including a *Developmental Cell* paper in 2007. Another first author paper is under secondary review by *Molecular Cell*. Dr. Patel has established a solid history of grant funding and currently holds an R01 from the National Institutes of Health. Twice, he has been awarded the distinction of outstanding research abstract in the Department of Internal Medicine Symposium. Dr. Patel has been an ad hoc reviewer for several journals including the *Journal of American Society of*

Physiology, and has served as an ad hoc reviewer for NIH and Juvenile Diabetes Foundation study sections.

Recent and Significant Publications:

Patel SR, Bhumbra S, Paknikar RS, Dressler GR: Epigenetic mechanisms of Groucho/Grg/TLE mediated transcriptional repression. *Molecular Cell* 2011. *In press*

Stein AB, Jones TA, Herron TJ, Patel SR, Day SM, Noujaim SF, Milstein ML, Klos M, Furspan PB, Jalife J, Dressler GR: Loss of H3K4 methylation destabilizes gene expression patterns and physiological functions in adult murine cardiomyocytes. *J Clin Invest* 121:2641–2650, 2011.

Wiggins JE*, Patel SR*, Shedden KA, Goyal M, Wharram BL, Martini S, Kretzler M, Wiggins RC. (2009). NFκB in the pro-inflammatory, pro-coagulant, pro-fibrotic linearly aging glomerulus. *J Am Soc Nephrol* 21: 587–597, 2010.

*Contributed equally

Patel SR, Levitan I, Kim D and Dressler GR. The BRCT- Domain Containing Protein PTIP Links Pax2 to a Histone H3, Lysine 4 Methyltransferase Complex. *Developmental Cell* 13:580-592, 2007.

Lin J, Patel SR, Cho EA, Levitan I, Ullenbruch M, Phan S, Park JM and Dressler GR. Kielin/Chordin like protein (KCP), a novel enhancer of BMP signaling attenuates renal fibrotic disease. *Nature Medicine* 11:387-393, 2005.

Service: Dr. Patel is the director of the Nephrology Stone Prevention Clinic. He is the clinical leader in the diagnosis and treatment of patients with kidney stones. He is also actively involved with fellowship selection and recruitment in nephrology. He has served as an abstract reviewer for the Internal Medicine Symposium. Dr. Patel is a passionate patient care advocate and is highly regarded for the high standard of care he provides.

External Reviewers:

Reviewer A: “The novel aspects of his work have always impressed me. For example, his work on Pax2 and Groucho in transcriptional repression has set the stage for a new paradigm in the understanding of metanephric specification....This body of work which was published in *Developmental Cell* is truly in the forefront of science and has opened new avenues for others in the field to investigate similar mechanisms in the kidney and elsewhere....I would characterize his work as carefully executed, high quality, highly innovative and always on the leading edge of science and technology.”

Reviewer B: “Dr. Patel is a rare species in academic nephrology, a physician-scientist who is an accomplished laboratory investigator. Unfortunately, he doesn’t have many peers because there is a national shortage of laboratory-based physician-scientists in academic nephrology, especially at the associate professor level.”

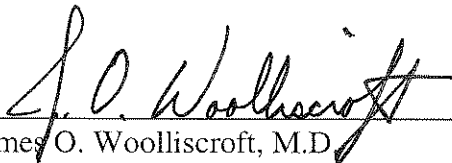
Reviewer C: “Sanj’s finding a mechanistic link between PAX2 and chromatin modification opened up a whole new area of investigation in kidney development and brought the kidney into the still ‘hot’ field of epigenetics....Sanj has generously given of his time to review grants for several private foundations as well as for the NIH. In addition, he has presented invited lectures at prestigious national meetings, such as the American Society of Nephrology and the American Geriatrics Society....he has established himself as a real player in the renal developmental biology field.”

Reviewer D: “Dr. Patel is playing a key role as a skilled molecular biologist and nephrologist engaged in fundamental studies of kidney development and injury. His skills in transcriptional control and sophisticated molecular biology, while also being a nephrologist with an eye towards clinically important questions, provide him with a unique niche....He has demonstrated his ability as an independent investigator through his ability to get an R01 and his publication record. He is also able to collaborate with others at Michigan. Thus, he can both pursue his own area of investigation and contribute to team science. His work is very high quality and high impact, being published in outstanding journals.”

Reviewer E: “Sanj’s work over the last 5+ years has really proven the importance of transcriptional regulatory mechanisms in kidney development and disease pathogenesis. His papers have been original and moved the field forward. As the DNA regulatory landscape becomes defined by ENCODE, Sanj’s work will provide the functional roadmaps for defining the role of non-coding variants in chronic disease pathogenesis.”

Summary of Recommendation:

Dr. Patel is a dedicated and extremely gifted physician scientist who fills a unique niche. He has helped establish the field of epigenetics in kidney development and the potential role of alterations in epigenetic regulation in kidney disease. His contributions have established direction for future research and will likely ultimately have an impact on the care of patients. He is highly regarded nationally and gives a great deal back to the field by contributing so well to the education of future physicians. I am pleased to recommend Sanjeevkumar R. Patel, M.D. for promotion to associate 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 2012