

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

Jeffrey B. Hodgin, M.D., Ph.D., assistant professor of pathology, Department of Pathology, and assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of pathology, with tenure, Department of Pathology, and associate professor of internal medicine, without tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

M.D.	2003	University of North Carolina, Chapel Hill
Ph.D.	2002	University of North Carolina, Chapel Hill
B.S.	1992	University of North Carolina, Chapel Hill

Professional Record:

2018 – Present	Assistant Professor of Internal Medicine, University of Michigan
2010 – Present	Assistant Professor of Pathology, University of Michigan
2008 – 2010	Clinical Lecturer of Pathology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Hodgin teaches across a broad scope of learners and environments. He instructs didactically and through lab mentorship for medical and dental students on renal disease, and as an attending supervisor for pathology residents and nephrology fellows. He has been involved in international teaching activities, including an international summer school of renal pathology in Italy, a renal biopsy course for the American Society of Nephrology in Chicago, and a similar course in New Orleans. Dr. Hodgin provides eight fellow teaching conferences on The Renal Biopsy and he is currently involved in a collaborative research project in Africa, which involves a significant amount of teaching by distance and supporting training pathologist in ten sub-Saharan African countries.

Research: Dr. Hodgin's research focuses on integrative systems biology approaches to glomerular disease mechanisms and facilitation of improved disease classification. He has worked with the kidney precision medicine project using specialized mRNA technology to localize cell specific transcriptomic profiles and understand cell types of disease states morphologically. Dr. Hodgin is a strong team scientist, and is an essential team member conducting important discovery research. His collaborations are national and international and he has clearly established a very important niche. He is a co-principal investigator of an NIH R01 grant, an NIH UG3 grant, as well as a co-investigator of multiple grants. Dr. Hodgin has published 55 peer-reviewed articles, and has presented his research, by invitation on 12 occasions nationally and internationally, including in Italy, Austria, India and Nigeria. In 2015, he received a prestigious international award, the Gloria Gallo Research Award from the Renal Pathology Society.

### Recent and Significant Publications:

Hodgin JB, Nair V, Zhang H, Randolph A, Harris RC, Nelson RG, Weil EJ, Cavalcoli JD, Patel JM, Brosius FC, Kretzler M: Identification of cross-species shared transcriptional networks of diabetic nephropathy in human and mouse glomeruli. *Diabetes* 62(1): 299-308, 2013.

Blattner SM, Hodgin JB, Nishio M, Wylie SA, Saha J, Soofi AA, Vining C, Randolph A, Herbach N, Wanke R, Atkins KB, Gyung Kang H, Henger A, Brakebusch C, Holzman LB, Kretzler M: Divergent functions of the Rho GTPases Rac1 and Cdc42 in podocyte injury. *Kidney Int* 84(5): 920-930, 2013.

Hodgin JB, Berthier CC, John R, Grone E, Porubsky S, Gröne HJ, Herzenberg AM, Scholey JW, Hladunewich M, Cattran DC, Kretzler M, Reich HN: The molecular phenotype of endocapillary proliferation: novel therapeutic targets for IgA nephropathy. *PLoS ONE* 9(8): e103413, 2014.

Hodgin JB, Bitzer M, Wickman L, Afshinnia F, Wang SQ, O'Connor C, Yang Y, Meadowbrooke C, Chowdhury M, Kikuchi M, Wiggins JE, Wiggins RC: Glomerular Aging and Focal Global Glomerulosclerosis: A Podometric Perspective. *J Am Soc Nephrol* 26(12): 3162-78, 2015.

Zee J, Hodgin JB, Mariani LH, Gaut JP, Palmer MB, Bagnasco SM, Rosenberg AZ, Hewitt SM, Holzman LB, Gillespie BW, Barisoni L: Reproducibility and Feasibility of Strategies for Morphologic Assessment of Renal Biopsies Using the Nephrotic Syndrome Study Network Digital Pathology Scoring System. *Arch Pathol Lab Med* 142(5): 613-625, 2018.

Service: Dr. Hodgin has important service commitments. He is a member of two editorial boards; the American Journal of Kidney Diseases and Scientific Reports. He is a member of the Nephrotic Syndrome Study Network (NEPTUNE) and has served as a member of the Diabetic Complications Consortium. Dr. Hodgin has served on the Program Committee and the Research Committee of the Renal Pathology Society. Institutionally, he has served on the Anatomic Pathology Projects Committee and the Department of Pathology Residency and Fellowship Admission Committee.

### External Reviewers:

Reviewer A: "Dr. Hodgin is highly regarded and nationally recognized for his work by pathologists, nephrologist, and renal investigators. Specifically, his studies to elucidate the mechanisms of podocyte injury in glomerular disease and diabetic nephropathy are pioneering... [one] reason is the approach that has been pioneered by Dr. Hodgin and his colleagues where they used sophisticated omics and analytical methodologies to uncover unbiased molecular discoveries. This approach is highly innovative and has ushered the way to many similar studies modeled after the study from Dr. Hodgin's group. ...his involvement in the development and implementation of digital pathology in national consortia such as NEPTUNE and KPMP are visionary and will likely lead to the wide adoption of this evolving approach by pathologists."

Reviewer B: "Jeff's scholarly work as evidenced in his CV is outstanding. The group of papers he has highlighted show his unique and productive approach integrating advanced pathology techniques and transcriptome analysis. Several of his first-authored papers have merited editorial attention and are likely to be widely cited. These include the podocytopathy studies with Roger Wiggins (34), studies of the glomerular transcriptome in diabetic (22) and IgA (30) nephropathy. His collaborative work with NEPTUNE has brought him into contact with a broad group of leading nephropathologists and should lead to many future important publications."

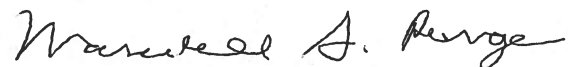
Reviewer C: “Jeffrey is considered as one of the best academic renal pathologists in the world. He has been involved in several major NIH sponsored consortiums such as NEPTUNE and KPMP. ...He plays a key role in the renal scientific community. With others, he developed several new classifications of glomerular disease. He is also a pioneer in the field of digital renal pathology. ...he has built an outstanding scholarship even though he is still in his early scientific career.”

Reviewer D: “Jeffrey’s overall scientific work is a paradigm for other [junior] renal pathologists with academic career aspirations to follow...The focus gamma of Jeffrey’s work is translational investigation of glomerular disease pathogenesis, including diabetes, FSGS and IgA nephropathy, be it trascryptomics, [sic] molecular profiling, or podometrics. He is also a part of nationwide consortia such as Neptune and digital pathology studies, a field that may transform the modus operandi of renal pathology in America and Europe...His first author paper in the Journal of the American Society of Nephrology (JASN) is a classic.”

Reviewer E: “...significantly more information can be found in kidney tissue [than histology]... Dr. Hodgin does embrace this idea and is one of the few nephropathologists on the cutting edge of changing the practice of this subspecialty. This is reflected in many of his publications. These publications also reflect the fact that Dr. Hodgin understands that bringing nephropathology into the molecular age will only work as team science. ...he and Dr. Wiggins have produced a body of work describing the importance of podocyte density and the development of glomerulosclerosis and ultimately progressive chronic kidney disease. This series of articles defined an important and novel observation and provided methodology to help measure podocyte density histologically and podocyte loss in the urine. These data define a ‘point of no return’ in terms of podocyte numbers. I think this work, when applied clinically, will have at the minimum prognostic value and most likely help target us toward maintaining podocyte density therapeutically...One of Dr. Hodgin’s key areas of interest is the development of digital pathology as a tool to transform nephropathology from descriptive to quantitative. He has been a leader in conceptualizing and operationalizing the digital pathology effort...”

Summary of Recommendation:

Dr. Hodgin is a very strong team scientist. He has established himself as an invaluable team member on a number of research collaborations, providing essential methodological work. He has a substantial body of publications, and is an attentive teacher who crosses a number of venues and types of learners. I am pleased to recommend Jeffrey B. Hodgin, M.D., Ph.D. for promotion to associate professor of pathology, with tenure, Department of Pathology, and associate professor of internal medicine, without tenure, Department of Internal Medicine, Medical School.



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

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