

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Peter D. R. Higgins, M.D., Ph.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.Sc.	2006	University of Michigan
Ph.D.	1998	Duke University
M.D.	1998	Duke University
B.S.	1987	Duke University

Professional Record:

2006–present	Assistant Professor of Internal Medicine, University of Michigan
2004–2005	Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Higgins is actively involved in the education of medical students in their second, third and fourth years, Internal Medicine residents and gastroenterology fellows, as well as practicing physicians in the community. Dr. Higgins serves as a small group discussion leader for the annual M2 GI sequence and mentors M3 students during their gastroenterology clerkship. As the inpatient gastroenterology ward attending, he supervises M4 students during their GI rotation, teaching them the day-to-day clinical management of patients. Dr. Higgins also teaches Internal Medicine residents about the diagnosis and management of complex inflammatory bowel disease (IBD) during their time in his gastroenterology clinics. He is responsible for supervising, teaching and mentoring gastroenterology fellows both in the clinic and in the laboratory. Dr. Higgins gives update lectures on ulcerative colitis and Crohn's disease on a regular basis to practicing physicians throughout the State of Michigan and provides CME lectures to other regional gastroenterology house officer training programs. Not only is Dr. Higgins dedicated to the education of medical professionals, but he values patient education as well. He is the creator of ten patient education videos which help patients understand their disease, the need for therapy, and the risks of not treating IBD.

Research: Dr. Higgins' research interests focus on the detection and measurement of inflammation in inflammatory bowel disease (IBD), the mechanisms of intestinal fibrosis and the measurement of fibrosis with ultrasound and biomarkers. He also focuses on medication holidays after long-term IBD remission and patient-reported outcomes in IBD. Dr. Higgins is the principal investigator of grants funded by the NIH, industry, and private foundations, including an R01 NIH grant studying the application of machine learning algorithms to

thiopurine monitoring in IBD. He is actively involved in cross-disciplinary collaborations to produce novel applications of new technologies to IBD. His work with the director of ultrasound, Department of Radiology, and Kang Kim, College of Engineering, has led to a NIH R21 grant, numerous publications, and the submission of a new NIH R01 grant in June of this year. Dr. Higgins' work with faculty in the University of Michigan's College of Literature, Science, and the Arts and in the Department of Pathology has led to the development and application of machine learning to detect patterns in common laboratory results to improve management of IBD. This collaboration has led to a NIH R01 grant and numerous publications as well. Since Dr. Higgins' appointment as assistant professor, he has published 64 peer-reviewed publications, with an impressive 42 as first or senior author. His expertise is evidenced by his long list of extramural invited presentations across the United States and his position as an associate editor for *IBD* and *American Journal of Gastroenterology*, and as a reviewer for *Gastroenterology*, *Clinical Gastroenterology and Hepatology*, and *Gut*, to name a few.

Recent and Significant Publications:

Waljee AK, Joyce JC, Wang S, Saxena A, Hart M, Zhu J, Higgins PDR: Machine learning outperforms metabolites in identifying responders to thiopurines in inflammatory bowel disease. *Clinical Gastroenterology and Hepatology* 8:143-150, 2010.

Stidham RW, Xu J, Johnson LA, Kim K, Moons DS, McKenna B, Rubin JM, Higgins PDR: Ultrasound elasticity imaging for detecting intestinal fibrosis and inflammation in rats and humans with Crohn's disease. *Gastroenterology* 141:819-826, 2011.

Elmunzer BJ, Scheiman JM, Lehman GA, Chak A, Mosler P, Higgins PDR, Hayward RA, Romagnuolo J, Elta GH, Sherman S, Waljee AK, Repaka A, Atkinson M, Cote GA, Kwon RS, McHenry L, Piraka C, Wamsteker EJ, Watkins JL, Korsnes SJ, Schmidt SE, Turner SM, Nicholson S, Fogel EL on behalf of the United States Cooperative for Outcomes Research in Endoscopy (USCORE). A randomized trial of rectal indomethacin to prevent post-ERCP pancreatitis. *New England Journal of Medicine* 366:1414-1422, 2012.

Johnson LA, Luke A, Sauder K, Moons DS, Horowitz JC, Higgins PDR: Intestinal fibrosis is reduced by early elimination in a mouse model of IBD: Impact of a "top-down" approach to intestinal fibrosis in mice. *Inflammatory Bowel Diseases* 18:460-471, 2012.

Hueber W, Sands BE, Lewitzky S, Vandemeulebroecke M, Reinisch W, Higgins PDR, Wehkamp J, Feagan BG, Yao MD, Karczewski M, Karczewski J, Pezous N, Bek S, Bruin G, Mellgard B, Berger C, Londei M, Bertolino AP, Tougas G, Travis SPL: Secukinumab, a human anti-IL-17A monoclonal antibody, for moderate to severe Crohn's disease: unexpected results of a randomised, double-blind placebo-controlled trial. *Gut* 2012 in press.

Service: Dr. Higgins specializes in the care of patients with IBD, including Crohn's disease and ulcerative colitis. He has been named as one of the "Best Doctors in America" for the past three years and his expertise is evidenced by his referrals from IBD centers in the U.S. and around the world. In addition to his teaching, research and clinical activities, Dr. Higgins is incredibly involved in committee work on institutional, national, and international levels. In 2011, he was a

member of Working Group 3, IBD and Neoplasia for the European Crohn's and Colitis Organization and a member of the International Consensus Group on the Definition of Early Crohn's Disease. Nationally, he serves as the co-chair for the Clinical Research Alliance and as a member of the executive committee for the CCFA Partners Study both for the Crohn's and Colitis Foundation of America. At the institutional level, Dr. Higgins is the coordinator for the IBD Working Group, the director of the IBD Visiting Professors Program and editor of the *IBD Newsletter*. He serves as an interviewer for faculty candidates in Gastroenterology and is a member of the Medical Scientist Training Program Career Advisory Panel and Clinical Mentor Panel.

External Reviewers:

Reviewer A: "One of the things that has always impressed me about Dr. Higgins is his ability to be a terrific clinical researcher and ask questions that are very practical and very important for day-to-day patient care....As a testament to the extent of his research, he actually has an R01 to study machine-learning algorithms to monitor thiopurine dosing. This cannot be overstated as a very important, clinically relevant topic."

Reviewer B: "Peter is clearly an important presence in the national and international academic communities of Inflammatory Bowel Disease research....I have also interacted with Peter's mentees, mostly GI fellows, who have mentioned how rewarding it has been to them to work with and to learn from Peter prior to launching their own academic career."

Reviewer C: "...I recognized very early in Dr. Higgins [sic] career that he possessed important talents that have the potential to take him to the highest levels of recognition in our field. Specifically, there are relatively few true translational researchers in gastroenterology and particularly inflammatory bowel disease....Dr. Higgins [sic] training (including a basic science Ph.D. and a clinical science M.S.) sets him apart from most of the rest of the field. Importantly, he has used these skills to advance the field in many important ways."

Reviewer D: "...his work has clearly advanced the field of gastroenterology with particular focus on Inflammatory bowel disease...He is clearly amongst the top in the country in relation to peers."

Reviewer E: "Dr. Higgins is a researcher who spans the basic science and clinical arenas. The term 'translational' is often thrown about and used indiscriminately, but it is an accurate term to describe the type of research that Dr. Higgins performs....Dr. Higgins has also become increasingly involved in multicenter clinical trials, and over the years, he has applied the principles of clinical epidemiology well to undertake a number of important studies."

Reviewer F: "He is a national authority on translational research as it relates to IBD with a focus in intestinal fibrosis. He has made important contributions to the field and has been highly successful in obtaining sustained extramural grant funding for his research program."

Summary of Recommendation:

Dr. Higgins' dedication to the education of future medical professionals and scientists, his excellent clinical skills and commitment to outstanding patient care, and his productive research are exemplary. He is a key contributor to the Division of Gastroenterology and I strongly recommend Peter D. R. Higgins, M.D., Ph.D. for promotion to associate professor, with tenure, Department of Internal Medicine, Medical School.

A handwritten signature in cursive script, appearing to read 'J.G. Woolliscroft', written over a horizontal line.

James G. Woolliscroft, M.D.

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Lyle C. Roll Professor of Medicine

May 2013