

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

Peter D. Higgins, 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:

M.Sc.	2006	University of Michigan, School of Public Health
Ph.D.	1998	Duke University
M.D.	1998	Duke University
B.S.	1987	Duke University

Professional Record:

2013-present	Associate Professor of Internal Medicine, University of Michigan
2005-2013	Assistant Professor of Internal Medicine, University of Michigan
2004-2005	Clinical Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Higgins has been involved in educational activities at many levels. He is a small group discussion leader for the M2 GI sequence, and provides lectures to the M3 and M4 students in addition to clinical teaching of these students on the inpatient service. He spends a significant amount of time supervising and teaching internal medicine residents and gastroenterology fellows in the clinical setting and during formal teaching rounds, and teaches endoscopy procedures to GI fellows as well. Additionally, Dr. Higgins has provided research mentoring for numerous fellows in the laboratory, and many of these individuals have gone on to successful careers in academic medicine. Extramurally, he provides regular CME lectures to physicians throughout the State of Michigan on ulcerative colitis and Crohn's disease, and has given workshops on research techniques in patients with inflammatory bowel disease (IBD) at national meetings such as Digestive Disease Week. Dr. Higgins has also been very involved in patient education, speaking at IBD support group meetings and participating in local community outreach programs. He also developed and produced a series of patient education videos on IBD ("IBD School") that are available on YouTube and have been viewed more than 100,000 times and in 65 countries.

Research: Dr. Higgins' research is focused on inflammatory bowel disease, including the mechanisms of intestinal fibrosis. The goal of his work is to improve the diagnosis, prognostic tools, and treatment of Crohn's disease and ulcerative colitis. He has published over 70 peer-reviewed papers while in rank as associate professor, with many in top-tier journals. His work is highly cited and his expertise is evident in his involvement in writing national consensus statements, as well as his peer-review service for numerous journals. He regularly presents his

work at major meetings, such as Digestive Disease Week, and has been an invited speaker in many venues. Dr. Higgins also has an outstanding track record of obtaining funding for his work, and is currently the principal investigator on an NIH R01 grant, an NIH R21 grant, a Crohn's and Colitis Foundation award, and dozens of industry-sponsored grants. He is an inventor or co-inventor on six submitted U.S. patents.

#### Recent and Significant Publications:

Dillman JR, Stidham RW, Higgins PDR, Moons D, Johnson LA, Keshavarzi NR, Rubin J: Ultrasound shear wave elastography helps discriminate low-grade from high-grade bowel wall fibrosis in *ex vivo* human intestinal specimens. *Ultrasound in Medicine and Biology* 33: 2115-2123, 2014.

Rodansky ES, Johnson LA, Huang S, Spence JR, Higgins PDR: Intestinal organoids: A model of intestinal fibrosis for evaluating anti-fibrotic drugs. *Experimental and Molecular Pathology* 98:346-351, 2015.

Lei H, Johnson LA, Liu S, Moons DS, Ma T, Zhou Q, Rice MD, Ni J, Wang X, Higgins PDR, Xu G: Characterizing intestinal inflammation and fibrosis in Crohn's disease by photoacoustic imaging: feasibility study. *Biomedical Optics Express* 7:2837-2848, 2016.

Waljee AK, Sauder K, Patel A, Segar S, Liu B, Zhang Y, Zhu J, Stidham RW, Balis U, Higgins PDR: Machine learning algorithms for objective remission and clinical outcomes with Thiopurines. *Journal of Crohn's and Colitis* 11:801-810, 2017.

Sands BE, Chen J, Feagan BG, Penney M, Rees WA, Danese S, Higgins PDR, Newbold P, Faggioni R, Patra K, Li J, Kelotka P, Morehouse C, Pulkstenis E, Drappa J, van der Merwe R, Gasser RA: Efficacy and safety of MEDI2070, an antibody against Interleukin 23, patients with moderate to severe Crohn's disease: a phase 2a study. *Gastroenterology* 153:77-86, 2017.

Service: Dr. Higgins is an outstanding clinician with expertise in IBD, including Crohn's disease and ulcerative colitis. He is the director of the Inflammatory Bowel Disease program, and leads a weekly conference with IBD specialists and colleagues in pathology, radiology, and colorectal surgery to coordinate and improve patient care. He also serves as the director of the Ambulatory and Chronic Disease Clinical Trial Support Unit, which supports over 150 clinical trials. Nationally, Dr. Higgins is active in several professional societies, including the Crohn's and Colitis Foundation of America, the American Gastroenterological Association, and the American College of Gastroenterology, and has served on numerous committees. At the international level, he has been involved with the European Crohn's and Colitis Organization.

#### External Reviewers:

Reviewer A: "...I am strongly supporting the promotion of Dr. Peter Higgins to Professor because he has worked tirelessly to build an IBD center that offers patients the latest in therapeutic options. At the same time he and his colleagues and mentees have answered useful clinical questions. All

along his interest in intestinal fibrosis has continued, with NIH support, to percolate with a goal of therapeutic intervention in the fibrosis process in Crohn's disease."

Reviewer B: "He is nationally and internationally known, and his research spans multiple areas of gastroenterology, and specifically inflammatory bowel disease....He is well funded, has mentored many individuals who now, in turn, are becoming successful, and he is asked to speak at multiple national and international meetings... .He is simply an outstanding candidate..."

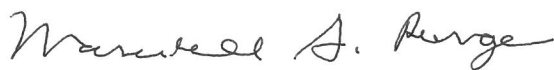
Reviewer C: "Peter is a tireless worker, a critical and non-conformist thinker and a successfully funded researcher. He has numerous publications in high tier journals and has mentored a legion of fellows. He is involved in every society and is well known, respected and liked among his peers. I recommend him without hesitation and say with confidence that you are fortunate to have such a professor at your institution."

Reviewer D: "Dr. Higgins is an exceptional physician-researcher who embodies the clinical, teaching, and research standards of a full professor of medicine with tenure....Dr. Higgins has also built a world-class reputation as an IBD expert physician and created a large research presence at the University of Michigan....In sum, Dr. Higgins meets all of the criteria for promotion to Professor with tenure....He has demonstrated excellence in clinical service, is an outstanding teacher, innovative researcher, and has peer reviewed publications in top-tier journals."

Reviewer E: "I have admired his peer-reviewed publications and funded research, which has recently opened new understandings of mechanisms of fibrosis, which is one of the primary complications of Crohn's disease....Dr. Higgins is at the forefront of non-invasive imaging of fibrosis. He is extraordinarily well funded by pharmaceutical companies for clinical trials and is actively publishing. He is nationally known and respected for his clinical expertise and service."

Summary of Recommendation:

Dr. Higgins is an outstanding physician-scientist who is recognized nationally and internationally for his clinical, translational, and basic science work in the area of inflammatory bowel disease. He has also provided research mentoring for numerous fellows, and is extremely active in teaching and service both institutionally and extramurally. Therefore, I enthusiastically recommend Peter D. Higgins, M.D., Ph.D. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.



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

May 2018

February 1, 2018

Martin A. Philbert, Ph.D.  
Provost and Executive Vice President for Academic Affairs  
3075 Fleming

**Subject: Peter D. Higgins, M.D., Ph.D., Associate Professor, Empl. ID:97071256; Internal Medicine; Date of Hire: 7/1/2004**

Dear Martin:

I would like to recommend Peter D. Higgins, M.D., Ph.D. for promotion to Professor, with tenure, in the Department of Internal Medicine. Dr. Higgins received his M.D. degree and Ph.D. in molecular cancer biology from Duke University in 1998. He remained at Duke for an internal medicine residency from 1998 to 2001 and then came to the University of Michigan for a fellowship in gastroenterology from 2001 to 2004. Dr. Higgins earned a master's in clinical research design and statistical analysis from the University of Michigan School of Public Health in 2006. In 2004, he was appointed as a clinical lecturer in the Department of Internal Medicine, Section of Gastroenterology. From 2005 to 2013 he was an assistant professor in that department and was promoted to associate professor, with tenure, in 2013. This is his fifth year in rank.

Dr. Higgins provides *instruction* to medical students, internal medicine residents, and gastroenterology fellows through didactic lectures and small group discussions. In addition, he has taught in the laboratory setting and served as primary research mentor for four undergraduates, three medical students, seven residents, four faculty, and 12 fellows. He gives talks to physicians in the State of Michigan and workshops at national meetings on research in patients with IBD (inflammatory bowel disease). He has developed a series of 38 patient educational videos on IBD which are available on YouTube. Teaching evaluations from residents and fellows are in the 4.7 to 4.8 range on a 5-point scale.

Dr. Higgins' *research* is on inflammatory bowel disease, with the goal of improving diagnosis, prognostic tools, monitoring, and treatment of Crohn's disease and ulcerative colitis. He has a basic science laboratory studying the mechanisms of intestinal fibrosis and a clinical research program that is developing imaging tools for measuring intestinal fibrosis in IBD patients. In addition, he is involved in a project that uses machine learning to predict which patients are most likely to benefit from different IBD therapies. Dr. Higgins is currently the principal investigator (this is on page 4 of the CV, 5<sup>th</sup> entry down) of an NIH R01 grant on nonlinear

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ultrasound as an imaging biomarker for intestinal fibrosis in Crohn's disease. He is also the co-principal investigator on an R21 on *in vivo* photoacoustic biopsy for intestinal strictures in Crohn's disease and is involved in numerous industry sponsored grants. He has 138 peer-reviewed publications; 67 while in rank. He has been granted six patents related to his research. Evidence of his international reputation is supported by visiting professorships in Vienna Prague, Haifa Israel, and Taipei Taiwan and numerous invited presentations.

Dr. Higgins provides local *service* as Director of the Inflammatory Bowel Disease Program, and leads a weekly conference with IBD specialists and colleagues in pathology, radiology, and colorectal surgery to coordinate and improve patient care. He is the Director of the Ambulatory and Chronic Disease Clinical Trial Support Unit, which supports over 150 clinical trials. Dr. Higgins is a member of several national societies of his specialty and is on the international editorial board for *Gastroenterologie a Hepatologie* (Czech Republic) as well as an ad hoc reviewer for over 20 journals. The committees noted that his national involvement in organizational service has decreased since his last promotion; however, there has been a commensurate increase in other activities such as grant participation and local service.

Dr. Higgins is known nationally and internationally for his clinical work and research in the area of inflammatory bowel disease. The Advisory Committee for Appointments, Promotions and Tenure (ACAPT) voted 5-0-1 to approve the promotion and tenure recommendations; the one abstention was due to a departmental affiliation. The Medical School Executive Committee was also supportive of the promotion by a vote of 10-0-1, with the abstention due to a departmental affiliation.

Sincerely,

A handwritten signature in cursive script that reads "Marschall S. Runge".

Marschall S. Runge, M.D., Ph.D.

Executive Vice President

for Medical Affairs

Dean, Medical School