

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

Ryan W. Stidham, M.D., M.Sc., 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.	2015	University of Michigan School of Public Health
M.D.	2005	University of Virginia, Charlottesville
B.S.	2001	St. Joseph's University, Philadelphia

Professional Record:

2016-present	Assistant Professor of Internal Medicine, University of Michigan
2011-2016	Clinical Lecturer of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Stidham has mentored clinical fellows, post-doctoral research fellows, residents, graduate students, and undergraduate students. His mentorship has led to them publishing research papers in medical science journals, presenting their findings at institutional, national, and international conferences, and successfully competing for post-doctoral and career development awards. Dr. Stidham provides formal didactic lectures during rotations to house officers and provides the inflammatory bowel disease (IBD) endoscopic teaching lecture series to fellows. As the IBD course director, he is a major contributor to the gastrointestinal sequence scientific trunk for first and second year medical students, with continued student education during their introduction to inpatient and outpatient clinical medicine. Dr. Stidham provides continuing medical education (CME) state-of-the-art lectures at national annual meetings including Digestive Disease Week and the Crohn's and Colitis Congress, as well as institutional gastrointestinal CME events. In 2017, he was awarded the University of Michigan Gastroenterology Teaching Award.

Research: Dr. Stidham devotes the majority of his professional effort toward his research in the development of new methods for measuring, phenotyping, and describing Crohn's Disease and ulcerative colitis, collectively inflammatory bowel diseases (IBD). His research aims to develop novel disease characterization and measurement tools that are quantitative, widely accessible, low cost, and improve patient access to high-quality care regardless of their location or financial resources. His research has resulted in two United States patent applications which include a quantitative bowel injury score using automated image analysis to predict therapeutic response in IBD, as well as a video signals analysis that improves endoscopic disease activity assessments in ulcerative colitis and Crohn's Disease. Dr. Stidham has an excellent track record of grant funding for his research from the NIH, Department of Defense, Crohn's and Colitis Foundation, Helmsley Charitable Trust and Abbvie. He currently serves as a principal investigator on one NIH R01 grant and a Crohn's and Colitis Foundation grant, as well as a Helmsley Foundation grant. Dr. Stidham was the recipient of the Best Research Award from the Crohn's and Colitis Congress in 2019. His

expertise in this field is evidenced by his service on national and international study sections including the NIH Multi-Center Clinical Study Implementation Planning Cooperative Agreements in Digestive Diseases and American Gastrointestinal Association Scientific Advisory Panel: Endoscopy, Technology and Imaging. Since 2016, he has given 10 extramural invited presentations at conferences around the country and served as visiting professor in Taiwan.

Recent and Significant Publications:

Yao H, Soroushmehr R, Gryak J, Najarian K, Stidham RW: Fully Automated Endoscopic Disease Activity Assessment in Ulcerative Colitis: Advancements and Remaining Challenges. *GIE*. 2020 Aug. (In press)

Stidham RW, Enchakalody B, Waljee AK, Higgins PDR, Wang SC, Su GL, Wasnik AP, Al-Hawary M: Assessing Structural Bowel Damage in Crohn's Disease Using Semi-Automated Image Analysis of Enterography Studies. *Inflamm Bowel Dis*. Apr 11; 26(5):734-742, 2020.

Stidham RW, Liu W, Bishu S, Rice MD, Higgins PDR, Zhu J, Nallamotheu BK, Waljee AK: Assessment of Automated Deep Learning Grading of Endoscopic Disease Severity Among Patient with Ulcerative Colitis. *JAMA Network Open*. May 3; 2(5):e193963, 2019.

Wu J, Lubman DM, Kugathasan S, Denson L, Hyams J, Dubinsky M, Griffiths M, Baldassano R, Noe J, Crandall W, Higgins PDR, Stidham RW: Serum Protein Biomarkers of Fibrosis Aid in Risk Stratification of Future Stricturing Complications in Pediatric Crohn's Disease. *Am J Gastroenterol*. May;114(5):777-785, 2019.

Rieder F, Bettenworth D, Ma C, Parker CE, Williamson LA, Nelson SA, van Assche G, Di Sabatino A, Bouhnik Y, Stidham RW, Dignass A, Rogler G, Taylor SA, Stoker J, Rimola J, Baker ME, Fletcher JG, Panes J, Sandborn WJ, Feagan BG, Jairath V. An expert consensus to standardize definitions, diagnosis and treatment targets for anti-fibrotic stricture therapies in Crohn's disease. *Aliment Pharmacol Ther*, Aug;48(3):347-357, 2018.

Service: Dr. Stidham is a member of the institutional Gastroenterology Fellowship Interview Committee and he serves as a supervisor for the Inflammatory Bowel Disease Immunosuppression Monitoring Program. Nationally, he is an active member of the American Gastroenterological Association, the American College of Gastroenterology, and the Crohn's and Colitis Foundation of America. Dr. Stidham also serves as the chair on the national Comparative Effectiveness in IBD Committee. He is an ad hoc reviewer for several journals including the *American Journal of Gastroenterology* and *Gastroenterology*.

External Reviewers:

Reviewer A: "Dr. Stidham has a unique position in our world. He is one of the few...people who is interested in truly translational research and has carved out a really superb niche for himself...One of the reasons I believe that Dr. Stidham has been so successful is he had the opportunity to work in the basic science lab of Dr. Peter Higgins to really understand fibrosis from a molecular and experimental perspective so that he could take this knowledge and now apply it to patient care...He has already developed what I suspect will become the standard of fully

automating endoscopic disease activity so it can be done without human beings having to analyze videos themselves.”

Reviewer B: “Thanks to Ryan’s research and the union of text, imaging, and endoscopic data sources will improve the personalization of outcome prediction models clinical decision aids...Despite Ryan’s significant clinical, and research commitments, he has always been actively involved in education and mentoring of college students, medical students, medical residents and gastroenterology fellows...Ryan is a wonderful colleague and collaborator. He has a sharp intellect and wonderfully active sense of humor, and he is one of the nicest, most compassionate people with whom I have had the pleasure to work...Ryan is an outstanding individual, expert clinician, leader, researcher, and well respected leader in the field of IBD.”

Reviewer C: “He has demonstrated consistent progress as he has evolved his disease models towards a focus on advances in patient care. His methodologies have evolved and transitioned over the past decade leading to numerous grants and culminating in the recent RO-1 regarding applications of AI. He has clearly separated himself from the cadre of academic assistant professors by his clinical/translational research studies that have led to an exemplary funding portfolio. National recognition of his efforts have led to leadership positions in AGA committees (he’s considered a star in evolving technologies) and he has a substantial publication history for a clinical investigator. By my interpretation he exceeds all criteria for the promotion and tenure within the ‘instructional track.’”

Reviewer D: “Especially regarding his research in injury scores and video analysis, I do not doubt that in the next years Dr. Stidham’s highly innovative approach will spearhead the development of artificial intelligence in Gastroenterology and especially IBD...His excellent research reflected by extensive funding puts him well ahead of his peer group in the IBD field and he would easily qualify for such a position at other institutions in the U.S...He is a nationally recognized exceptional translational researcher, especially in the field of artificial intelligence and fibrosis, a brilliant teacher, and an excellent clinician and thus fulfills every requirement for this appointment.”

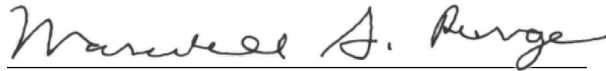
Reviewer E: “Ryan is extremely well trained under the auspices of an NIH T32 grant...he has established himself as a national and international expert in the fields of therapeutic outcomes and response in inflammatory bowel disease patients. Specifically, his research involves machine learning, artificial intelligence, automated image analysis, and prediction models to better understand the diagnosis and treatment outcomes of disease. His research skills are sure to lead the way for future health care delivery.”

Reviewer F: “He is among a small group of physician-scientists to be tackling the challenges of low reproducibility of interpretations and improving the predictive value of imaging for meaningful clinical outcomes...In the realm of clinical research outside of drug development, I think his work in this area is some of the most exciting that is happening in the field of IBD.”

Summary of Recommendation:

Dr. Stidham is an internationally recognized expert in the field of artificial intelligence and fibrosis in Inflammatory Bowel Diseases. He has produced seminal research in this field since his

appointment as an assistant professor which has contributed significantly to new methods for measuring, phenotyping, and describing Crohn's Disease and Ulcerative Colitis. He excels in research and is strongly committed to teaching and service. I am pleased to recommend Ryan W. Stidham, M.D., M.Sc. for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

A handwritten signature in cursive script, reading "Marshall S. Runge". The signature is written in dark ink and is positioned above a horizontal line.

Marshall S. Runge, M.D., Ph.D.
Executive Vice President of Medical Affairs
Dean, Medical School

May 2021