

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

John Y. Kao, 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.	1996	University of Southern California
B.S.	1992	University of California, Los Angeles

Professional Record:

2005–present	Assistant Professor of Internal Medicine, University of Michigan
2002–2005	Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Kao is actively involved in education through the mentoring of individuals in research projects and by providing didactic and clinical training to students, residents and fellows. Dr. Kao currently teaches first-year GI fellows endoscopy training, has taught a biomedical engineering innovative design class and organized and participated in formal lecture courses, grand round presentations, and multiple lectures at the University and at the regional and national level. Additionally, he serves as a mentor for the Undergraduate Research Opportunity Program (UROP). Dr. Kao currently serves as the assistant director of the GI fellowship program and developed the fellowship program curriculum in 2009. His consistent high evaluation scores reflect his students' satisfaction with his teaching ability. In recognition of his teaching, he was presented with the "Outstanding Teacher Award" from the gastroenterology fellows class of 2007. Dr. Kao is also active in community education, giving lectures to patient and community groups through outreach programs.

Research: Dr. Kao's scholarly work focuses on the immunopathogenesis of *H. pylori* infection and the mechanisms by which the gut establishes tolerance to the gut microbiota and has established a national reputation as an expert in the molecular pathogenesis of *H. pylori*. He uses novel and cutting-edge animal models to extend *in vitro* findings into the gastrointestinal function. His investigations focus on understanding the molecular mechanisms through which *H. pylori* may persist for decades and has opened up new fields of investigation; these concepts have been incorporated into reviews that have been written on *H. pylori* immunology. Dr. Kao's findings have been published in high-profile journals including, *Gastroenterology*, *Journal of Immunology*, *Gut* and the *American Journal of Physiology*. Dr. Kao has 26 peer-reviewed research articles published, 14 of which are first or senior author, five non peer-reviewed articles, as well as three book chapters, and one patent pending. A majority of his peer-reviewed papers

are published in high impact journals, which demonstrates Dr. Kao's emergence as a physician-scientist with a growing national reputation. He currently serves as an editorial board member for the *World Journal of Gastroenterology*, as a contributing editor-in-chief, and is an editorial board member and guest associate editor for *Gastroenterology*, the premier journal in the field. Dr. Kao currently has a NIH R01, R21, and U19 grant for his research and is the prior recipient of a NIH K08 and R03 award and the Ruth L. Kirschstein National Service Research Award. His international reputation is evident in his numerous invited talks and his extensive peer-review service.

Recent and Significant Publications:

Luther J, Owyang SY, Takeuchi T, Cole TS, Zhang M, Liu M, Erb-Downward J, Rubenstein JH, Chen CC, Pierzchala AV, Paul JA, Kao JY: Helicobacter pylori DNA decreases dendritic cell production of type I interferon and IL-12 and attenuates the severity of DSS-induced colitis *Gut* 2011. [Epub ahead of print]

Kao JY, Zhang M, Miller MJ, Mills JC, Wang B, Liu M, Eaton KA, Zou W, Berndt BE, Cole TS, Takeuchi T, Owyang SY, Luther J: Helicobacter pylori immune escape is mediated by dendritic cell-induced Treg skewing and Th17 suppression in mice. *Gastroenterology* 138:1046-1054, 2010.

Zhang M, Berndt BE, Chen JJ, Kao JY: Expression of a soluble TGF- β receptor by tumor cells enhances dendritic cell/tumor fusion vaccine efficacy. *Journal of Immunology*, 181:3690-3697, 2008.

Berndt BE, Zhang M, Chen GH, Huffnagle GB, Kao JY: The role of dendritic cells in acute dextran sulfate sodium colitis. *Journal of Immunology*, 129:6255-6262, 2007.

Kao JY, Rathinavelu S, Eaton KA, Bai L, Zavros Y, Takami M, Pierzchala A, Merchant JL: Helicobacter pylori secreted factors inhibit dendritic cell IL-12 secretion: a mechanism of ineffective host defense. *American Journal of Physiology-GI and Liver* 291:73-81, 2006.

Service: Dr. Kao is board certified in gastroenterology and has an active clinical practice focusing on Helicobacter pylori infection, celiac disease, eosinophilic esophagitis and other immune-mediated gastrointestinal disorders. He sees patients at the University of Michigan Hospital and is committed to providing outstanding patient care. Dr. Kao currently serves on the editorial board of the *World Journal of Gastroenterology*, *Gut Microbes*, *Gastroenterology*, is an active reviewer for many top-notch journals, and is a current member of several professional societies. Dr. Kao provides service to the division as the assistant director of the GI fellowship program. In addition, he serves on the Fellowship Selection Committee, organizes the Internal Medicine Faculty/Fellow Fitness Wellness Program, and is director of the Michigan Gut Peptide Center Visiting Professor Seminar Program. Nationally, he has been acknowledged by numerous extramural invited presentations.

External Reviewers:

Reviewer A: “Dr. Kao has been a successful clinician-scientist who has been locally and nationally recognized for his accomplishments with awards for abstract presentations and 9 travel awards to various scientific meetings....The significant majority of these peer-reviewed papers detail original bench research and are published in high impact journals or top journals in their fields...”

Reviewer B: “Dr. Kao is a thoughtful and accomplished physician scientist with an emerging reputation as a leader in academic gastroenterology. He is the type of person that any academic department of medicine, anywhere in the world, would be thrilled to have as a colleague.”

Reviewer C: “...he has unequivocally demonstrated evidence of original research and scholarship leading to significant advances in his discipline and has attained national recognition for accomplishment in his field....Dr. Kao has been eminently successful as a academician, has made outstanding contributions to the field of digestive disease research, and has established himself as an outstanding basic and translational researcher. John possesses all the important phenotypes for continued success in academics. Based on his level of scholarship, intelligence, love of teaching, and high level of motivation, I believe that he is a leader in the field of gastrointestinal mucosal immunology.”

Reviewer D: “He has made ample and noted scientific contributions to mucosal immunology, has achieved independent funding for his research program, is recognized as a quality teacher and has provided service to the academic communities in Ann Arbor and nationally. In so doing, he has brought distinction to himself, the Division of Gastroenterology and the University of Michigan.”

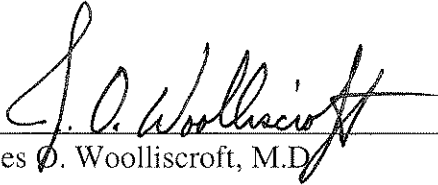
Reviewer E: “...Dr. Kao is a rising star in academic gastroenterology. However, while it is clear that Dr. Kao’s career remains on a steep upward trajectory, I think all would agree that Dr. Kao has emerged as a leader who is nationally-recognized for his work in *H. pylori* immunopathogenesis. I can also confidently state that Dr. Kao would easily be promoted to the same position [at my institution]....Overall, Dr. Kao has established himself as a leader in *H. pylori* biology and within the academic gastroenterology community. Based on these data I would rate Dr. Kao among the top 5% of his peer group.”

Reviewer F: “For his academic level, and years of experience I would rank Dr. Kao very highly. As a physician-scientist he would be in the top 10% of his peer group of senior-level Assistant Professors....He also has a wide array of invited presentations nationally and internationally, indicating that his work is important and considered to be of great value to the research community in gastroenterology, immunology, and microbiology.”

Reviewer G: “...Dr. John Kao is an outstanding candidate for promotion to Associate Professor of Medicine at the University of Michigan. He is a national authority on intestinal dendritic cell function. 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. Kao is a nationally recognized scholar in the field of immunopathogenesis of *H. pylori* and GI mucosal immunology. In addition to establishing a track record of publications and funding, he has also made important contributions to teaching and clinical service. Therefore, I am pleased to recommend John Y. Kao, 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