# PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

## DEPARTMENT OF INTERNAL MEDICINE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

<u>Vincent B. Young, M.D., Ph.D.</u>, assistant professor of internal medicine, Department of Internal Medicine, and assistant professor of microbiology and immunology, Department of Microbiology and Immunology, Medical School, is recommended for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, and associate professor of microbiology and immunology, without tenure, Department of Microbiology and Immunology, Medical School.

#### Academic Degrees:

M.D.	1992	Stanford University
Ph.D.	1992	Stanford University
B.S.	1985	Massachusetts Institute of Technology

#### Professional Record:

Assistant Professor of Internal Medicine, and Assistant Professor		
of Microbiology and Immunology, University of Michigan		
Assistant Professor of Internal Medicine, and Assistant Professor		
of Microbiology and Molecular Genetics, Michigan State		
University		
Research Associate, Massachusetts Institute of Technology		
Division of Bioengineering and Environmental Health		
Clinical Assistant, Harvard University-Harvard Medical School		
Instructor, Harvard University-Harvard Medical School		

#### Summary of Evaluation:

Teaching: Dr. Young has been involved in the education and mentorship of undergraduate, graduate and medical students beginning as a teaching assistant at Stanford Medical School in 1988 when he was responsible for recitations and preparing and grading problem sets for a class of 15 advanced undergraduate and first-year graduate students. At Harvard Medical School, he was responsible for tutoring first-year medical students on a weekly basis throughout the term. At Michigan State University, between the years 2002 and 2007, Dr. Young was involved in teaching numerous undergraduate and graduate school classes. In the winter of 2008, shortly after his arrival to the University of Michigan, Dr. Young became a small group co-leader to 30 first-year medical students. Dr. Young's most important teaching contribution comes from the mentoring of undergraduate, graduate and postdoctoral fellows in his laboratory. Many of his students from this setting have received scholarships and research grants, and one is now an

independent scientist with a joint appointment at the University of Chicago. In total, Dr. Young has participated in at least 20 direct student teaching opportunities since 1988. Dr. Young has participated in the Food Safety Online Professional Masters program since 2003. This program is administered by the National Food Safety and Toxicology Center and Michigan State University. Finally, Dr. Young has developed an interactive website curriculum and is the coauthor of a review book for third- and fourth-year medical students titled "Blueprints Medicine."

Research: Dr. Young's research interests center on bacterial pathogenesis with focus on gramnegative organisms within the gastrointestinal tract, microbial ecology of the indigenous gut microbiota, host-bacterial interactions with focus on mucosal immune responses and *C. difficile colitis*: relationship between antibiotics, changes in gut microbiota and disease. Dr. Young has 26 peer-reviewed publications in total and is first or last author on 17 of these. Between 1985 and 1992, Dr. Young received the Medical Scientist Training Program Scholarship/Grant. In 2002, Dr. Young received the MSU IRGP New Investigator Grant Award from the Michigan State University Foundation. Dr. Young's grant funding began in 1996 when he was awarded an NIH sponsored K08. Dr. Young continues to have a robust laboratory supported by seven NIH sponsored grants, two of which are R01s. Dr. Young is the principal investigator on four of those grants. Dr. Young's expertise is widely recognized across the United States as evidenced with eight visiting professorships, over 20 invited seminar talks, and another dozen extramural speaking presentations. Dr. Young currently sits on four study sections and is a reviewer for 14 journals. In 2008, he was a guest editor for *Interdisciplinary Perspectives on Infectious Diseases, Special issue; The Human Microbiome* and *Infectious Diseases: Beyond Koch*.

### Recent and Significant Publications:

Antonopoulos DA, Huse SM, Morrison HG, Schmidt TM, Sogin ML, and Young VB: Reproducible community dynamics of the gastrointestinal microbiota following antibiotic perturbation. *Infect and Immun*. Epub ahead of print doi:10.1128/IAI.01520-08, 2009.

Chang JY, Antonopolous DA, Kalra A, Tonelli A, Khalife WT, Schmidt TM, and Young VB: Decreased diversity of the fecal microbiome in recurrent *Clostridium difficile*-associated diarrhea. *J Infect Dis* 197:435-438, 2008.

Pratt JA, Sachen KL, Wood HD, Eaton KA, and Young VB: Modulation of host immune responses by the cytolethal distending toxin of *Helicobacter hepaticus*. *Infect Immun* 74:4496-4504, 2006.

Kuehl CJ, Wood HD, Marsh TL, Schmidt TM, and Young VB: Colonization of the cecal mucosa by *Helicobacter hepaticus* impacts the diversity of the indigenous microbiota. *Infect Immun* 73:6952-6961, 2005.

Young VB, and Schmidt TM: Antibiotic-associated diarrhea accompanied by large-scale alterations in the composition of the fecal microbiota. *J Clin Microbiol* 42:1203-1206, 2004.

<u>Service</u>: Dr. Young served on several institutional committees at Michigan State University including the Human Medicine Dean's Task Force for Advancing Research, the National Food Safety and Toxicology Center Strategic Planning Committee on Interdisciplinary Research, and the MSU College of Human Medicine Committee on Research, Dean's Committee. He is an active member of the American Board of Medical Microbiology, the American Association for the Advancement of Science, the Infectious Diseases Society of America and the American Society for Microbiology.

#### External Review:

<u>Reviewer A</u>: "Dr. Young is doing outstanding work in the area of defining the fecal microbiota and relating this to selected diseases such as IBD, AAD, and C. difficile colitis...it should also be noted that he is very well funded and obviously writes grants extremely well..."

Reviewer B: "...I have find [sic] no one with his level of enthusiasm, quality of work, and desire to succeed in his field of study. I foresee nothing but the same level of success and drive throughout his career so I would encourage you to lock him into the U of M fold as soon as possible...I wish we had hired him when we had the chance but I'm afraid that you beat us to him."

<u>Reviewer C</u>: "...his productivity since joining the faculty has been outstanding (new grants, many papers)...Based on the number of invited presentations at meetings and academic institutions, it is apparent that Dr. Young has an outstanding reputation in the field among his peer group."

Reviewer D: "Dr. Young is well-respected in the microbiology community for his research that places the understanding of the dynamics of microbial communities in health and disease on an entirely new foundation...I use Dr. Young's papers in my course on microbial community ecology because they provide models of how science should be done and communicated...Dr. Young has emerged as a central figure in community ecology and gut microbiology."

Reviewer E: "His degree of extramural funding is outstanding, his research productivity is very good and his stature in the field is excellent. Our promotion committee would consider him a rising star in a rapidly developing, very important field that is destined to grow considerably over the next decade. I anticipate that Dr. Young will be a leader in this field for some time to come."

Reviewer F: "He has not only demonstrated sustained high quality productivity in his research that is documented by his publications...He also has a very impressive list of successful grant applications. The multitude of invitations as a visiting professor and seminar speaker as well as the list of his teaching activities demonstrate his skills as an educator."

<u>Reviewer G</u>: "...Dr. Young has given many invited talks and has served as a Visiting Professor at many strong institutions around the country. In addition, he has begun to serve on grant review panels and as a journal reviewer. These activities support my view that he now has a national reputation as a scholar."

#### Summary of Recommendation:

Dr. Young is a brilliant physician scientist who has already made a significant impact in the study of microbial ecology of gastrointestinal disease and is also focused and dedicated to the instruction of students at all levels. His significant impact in the science world has already been felt. I am pleased to recommend Vincent B. Young, M.D. for promotion to associate professor, with tenure, Department of Internal Medicine, and associate professor, without tenure, Department of Microbiology and Immunology.

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

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