PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL Approved by the Regents May 20, 2010

DEPARTMENT OF INTERNAL MEDICINE

<u>Eric S. White, M.D.</u>, 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.	1995	State University of New York, Brooklyn
B.S.	1991	Tufts University

Professional Record:

2003-present	Assistant Professor of Internal Medicine, University of Michigan
2002-2003	Lecturer, Department of Internal Medicine, University of Michigan
2001-2002	Lecturer and Research Fellow, Department of Internal Medicine,
	University of Michigan

Summary of Evaluation:

Teaching: Dr. White has been actively involved in education at the medical school, graduate, and post-graduate levels. He has been a small-group leader for both M1 and M2 sequences on various aspects of pulmonary physiology and physical exam skills, a mentor for the M1 'physician shadow' program, and a panelist for an M2 elective on spirituality in medicine. Dr. White spends approximately 150 hours per year in the formal instruction of third- and fourth-year medical students during his time as an inpatient attending physician. His didactic teaching includes lectures to pulmonary fellows, house staff and medical students assigned to the pulmonary services. At the graduate level, Dr. White has regularly been involved in resident morning report, ambulatory morning report, and intern's report. His resident evaluations routinely fall within the fourth to fifth quintile. He is the thesis advisor for an immunology graduate student and is a member of the thesis committee for one other immunology graduate student. At the post-graduate level, he currently serves as a mentor for one of the pulmonary fellows, and has been active in the advisory committees of two current and two former fellows. He is a faculty member in Biomedical Sciences in both Cellular and Molecular Biology and in the Immunology Program.

Research: Dr. White's area of expertise is pulmonary fibrosis and wound healing in the lung. His research is focused on the hypothesis that extracellular matrix (ECM) signaling following lung injury actively drives the fibrotic process, rather than being the 'end result'. Dr. White's studies demonstrated, for the first time, that fibrotic lung fibroblasts had lower levels of the tumor suppressor PTEN compared to normal lung fibroblasts. This observation was one of the first studies to demonstrate a potential role for PTEN in non-malignant diseases. Dr. White extended his studies of PTEN by showing that PTEN deficiency was a feature only of lung

fibroblasts localized to the active lesion in lung fibrosis, the fibroblastic focus. He also demonstrated for the first time, that EDA fibronectin, an isoform of fibronectin, regulates lung fibrosis in vivo. While Dr. White has fewer first authored manuscripts than some faculty proposed for promotion and tenure, his scholarship has had a national and international impact. First, his work led to the early award of an R01. Second, Dr. White was the recipient of the 2009 American Thoracic Society Carol Basbaum Award given annually to a single individual for outstanding scientific achievement and mentoring. Third, Dr. White has been an invited speaker/session chair at the American Thoracic Society International Meeting in 2005, 2007, and 2008, and an invited participant at an EMBO meeting in Italy in 2007. Fourth, he is a member of the editorial board of the Journal of Pathology (UK) and the American Journal of Respiratory and Critical Care Medicine. Fifth, he has held leadership positions on the program committees of the American Thoracic Society, the American College of Chest Physicians, and the T. Franklin Williams Scholars Meeting of the Association of Subspecialty Professors. Finally, Dr. White's work has made him a target of vigorous faculty recruitment by the University of Utah. Indiana University, Emory University and University of Louisville. Dr. White has published ten manuscripts since 2007.

Recent and Significant Publications:

Muro AF, Moretti FA, Moore BB, Yan M, Atrasz RG, Wilke CA, Flaherty KR, Martinez FJ, Tsui JL, Sheppard D, Baralle FE, Toews GB, White ES: An essential role for fibronectin extra type III domain A in pulmonary fibrosis. *Am J Respir Crit Care Med* 177(6):638-645, 2008.

Nho RS, Xia H, Diebold D, Kahm J, Kleidon J, White E, Henke CA: PTEN regulates fibroblast elimination during collagen matrix contraction. *J Biol Chem* 281:33291-33301, 2006.

White ES, Atrasz RG, Hu B, Phan SH, Stambolic V, Mak TW, Hogaboam CM, Flaherty KR, Martinez FJ, Kontos CD, Toews GB: Negative regulation of myofibroblast differentiation by PTEN (Phosphatase and Tensin Homolog Deleted on Chromosome 10). *Am J Respir Crit Care Med* 173:112-121, 2006.

White ES, Atrasz RG, Dickie EG, Aronoff DM, Stambolic V, Mak TW, Moore BB, Peters-Golden M: Prostaglandin E₂ inhibits fibroblast migration by E-Prostanoid 2 receptor-mediated increase in PTEN activity. *Am J Respir Cell Mol Biol* 32:135-141, 2005.

White ES, Thannickal VJ, Carskadon SL, Dickie EG, Livant DL, Markwart S, Toews GB, Arenberg DA: Integrin $\alpha_4\beta_1$ regulates migration across basement membranes by lung fibroblasts: A role for phosphatase and tensin homologue deleted on chromosome 10. *Am J Respir Crit Care Med* 168:436-442, 2003.

<u>Service</u>: Dr. White is an expert in sarcoidosis and personally manages well over 100 patients with sarcoidosis, as well as serving as an inpatient attending physician for a total of two months per year. Within the University, he serves on the Medical School Admissions Committee and as

an Internal Medicine residency applicant reviewer. At the national level, Dr. White serves as the head of the Section on Fibroblast Biology and Pulmonary Fibrosis, International Conference Programming Committee for the American Thoracic Society. He is also a member of the Interstitial and Diffuse Lung Disease NetWork Steering Committee of the American College of Chest Physicians.

External Review:

Reviewer A: "He is an excellent scientist who will likely make contributions to the field of lung biology for many years to come...He has a leadership role in the American Thoracic Society as a member of the program committee for the Respiratory Cell and Molecular Biology Assembly and serves on the editorial board for the Journal of Pathology...His accomplishments to date place him well above average for academicians in Pulmonary and Critical Care Medicine at his career stage."

<u>Reviewer B</u>: "Dr. White's outstanding research work was recently honoured by the ATS, when he was awarded the Carol Basbaum Award for Research Excellence. This award is judged by a committee of advanced scientists within the pulmonary field, and was designed to highlight the attributes of strong science, mentoring abilities, and leadership within the ATS."

Reviewer C: "Dr. Eric White has achieved national and international recognition for research efforts pertaining to lung injury and repair. This is demonstrable by his selection for grant review study sections, his frequent invitations to serve as chair and invited speaker at national meetings, and his invitation to serve as reviewer and contributor of editorials for several pulmonary and basic science medicine journals...Dr. White has demonstrated his devotion for developing the careers of others. This is clearly evident through his prior teaching awards, his ongoing mentorship of residents, fellows and graduate students, and his participation in the T32 training grant currently at Michigan."

Reviewer D: "...Dr. White's papers have a significant impact and are well known and cited. Dr. White remains highly regarded in the US and internationally, and is often invited to speak at key meetings in his field...I believe Dr. White has, with other colleagues, already made notable contributions to our current understanding of lung fibrosis. I believe this promotion would be an appropriate springboard for the next phase of development in Dr. White's career where I expect him to emerge as one of our very best leaders inspiring the next generation of physician scientist and developing new approaches to better treat his patients."

Reviewer E: "...Dr. White and colleagues demonstrated the role of Integrin alpha4-beta1 in regulating the migration of fibroblasts. In my opinion, this was a major step towards understanding the role of a molecule in Pulmonary Fibrosis that had hitherto remained elusive... Eric has pushed this new perspective on mechanisms of fibrosis to new frontiers...There would be no hesitance on my committee to approve a promotion to tenured Associate Professor for anyone with Dr. White's qualifications. He's a great success story already written and ongoing."

Reviewer F: "...Dr. White is a vibrant Clinician Scientist who excels in all aspects of his academic career. He is also recognized by his peers at the University of Michigan where he has

been entrusted with mentoring a number of promising individuals and the broader Respiratory community around the country."

Reviewer G: "Eric is that rare combination of superb physician and scientist and is at the top tier of pulmonary physician-scientists...Eric has consistently produced outstanding work that has direct impact on the field of pulmonary fibrosis...Eric is an outstanding physician-scientist and has all of the qualifications needed for promotion-he has published consistently outstanding research that has influenced the field of pulmonary fibrosis; he has competed successfully for extramural funding; and he has an superb track record of service and leadership at the National level. Eric would stand out at any institution."

Reviewer H: "His work has yielded great insights into the role of specific sets of integrins in the ability of fibroblasts to migrate through basement membranes. These highly novel mechanistic studies also have strong translational application for pulmonary fibrotic diseases which are significant causes of morbidity and mortality. Evidence of success in this area is multiple invitations to present his research nationally and internationally."

Summary of Recommendation:

Dr. White has distinguished himself as a medical educator and researcher. He has been an enthusiastic, dedicated, hard-working teacher, investigator, and clinician. I, therefore, am delighted to recommend Dr. White for promotion to associate professor, with tenure, in the Department of Internal Medicine, Medical School.

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2010