

May 17, 2007

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Kevin R. Flaherty, 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.S.	2001	University of Michigan School of Public Health
M.D.	1993	Indiana University
B.S.	1989	University of Dayton

Professional Record:

2001-Present	Assistant Professor of Internal Medicine, University of Michigan
2000-2001	Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Flaherty has been a dedicated teacher of house staff and students throughout his medical career. His appointment as Chief Medicine Resident at Indiana University is evidence of his long standing involvement in medical education. From 2000 until the present, he has been an inpatient attending physician for a total of three months per year spending approximately 225 hours per year in the formal instruction of third- and fourth-year medical students assigned to internal medicine. Dr. Flaherty provides formal instruction in differential diagnosis, pathogenesis of disease, and treatment of disease in the context of bedside rounds, case presentations, and formal lectures. In addition, he serves as an attending physician in the bronchoscopy suite and is an attending physician in the pulmonary function laboratory. Dr. Flaherty is also involved in first- and second-year medical student education. He served as a clinical skills instructor for Introduction to the Patient for the past two years. Dr. Flaherty has delivered a lecture on exercise physiology and cardiopulmonary exercise testing for the second-year respiratory sequence. Dr. Flaherty also served as a leader of a small group case discussion session (ten hours per year) for second-year medical students. Dr. Flaherty is also involved in third-year ambulatory care education. Dr. Flaherty has mentored a third-year medical student (one-half day per week) in a pulmonary outpatient continuity clinic. Dr. Flaherty is a masterful educator of postdoctoral fellows; he instructs pulmonary fellows in procedures (thoracentesis, bronchoscopy) during the months he is assigned as attending physician. Dr. Flaherty's expertise as a postdoctoral fellow educator is evidenced by his appointment as the Associate Director of the Pulmonary and Critical Care Medicine Fellowship Program in 2005. Dr. Flaherty has organized and coordinates the fellow conference, which involves fellow teaching through basic science and clinical readings, formal core lectures, and case presentations. Dr. Flaherty has distinguished himself in the educational roles involving the entire gamut of students at the Medical School at the University of Michigan.

Research: Dr. Flaherty is a patient based investigator of chronic fibrotic lung diseases. His work has focused on patients with idiopathic pulmonary fibrosis (IPF) and nonspecific interstitial

pneumonia (NSIP). Dr. Flaherty has made major contributions to our understanding of the diagnosis, prognosis and pathogenesis of these two diseases. First, Dr. Flaherty demonstrated that a histological pattern of NSIP can be seen in patients with IPF. Both UIP and NSIP patterns were seen in multiple biopsies from the same patient, even in multiple biopsies from the same lobe. Dr. Flaherty's work added two new nosological terms "discordant UIP and concordant UIP" to the literature. He documented that patients with discordant UIP have a prognosis close to those with concordant UIP. This study changed clinical practice by highlighting the critical importance of obtaining biopsy material from more than one lobe. Second, Dr. Flaherty has identified clinical features which predict prognosis in fibrotic lung diseases. Patients with an HRCT and biopsy diagnosis of UIP had a mean survival of only 2.1 years compared to 5.8 years for patients without an HRCT diagnosis of UIP but with a biopsy diagnosis of UIP. These findings also crucially altered clinical care and study design. Dr. Flaherty's studies altered the choice of the optimal time for therapeutic intervention or lung transplantation and the stratification of clinical trials for new therapeutic agents. Third, Dr. Flaherty's studies validated a histopathologic feature of UIP as being important in both pathophysiology and as a determinant of prognosis in patients with IPF/UIP. Fibroblastic foci are collections of activated fibroblast which are thought to represent the leading edge of the fibroproliferative response. Dr. Flaherty documented that the profusion (density) of fibroblastic foci was significantly higher in patients with IPF/UIP than in patients with collagen vascular disease associated with UIP. Patients with IPF/UIP had a worse prognosis despite a similar amount of fibrosis being noted on HRCT. His manuscript validated the importance of fibroblastic foci as a determinate of progression for patients with UIP and has focused cell and molecular studies on this particular pathological feature. Dr. Flaherty has funded his research throughout his appointment at the University of Michigan. Dr. Flaherty has been funded by the National Institutes of Health. He is the principal investigator of a K23 and is also funded as a co-investigator on an RO1. Dr. Flaherty is a co-investigator on two projects in the SCOR in the Pathobiology of Fibrotic Lung Disease and a co-investigator on U10HL080371 (F. Martinez P.I.). Dr. Flaherty has served as the principal investigator on clinical trials in fibrotic lung diseases sponsored by Eli Lilly, Genzyme Corporation, and Fibrogen.

Dr. Flaherty is the author of 35 manuscripts. He is the first author on 15 of these manuscripts. Dr. Flaherty's work has been published in outstanding peer-reviewed journals, including the *American Journal of Respiratory and Critical Care Medicine*, *American Journal of Medicine*, *American Journal of Pathology*, and the *Annals of Internal Medicine*. Dr. Flaherty has a national and international reputation as a physician investigator of chronic interstitial lung diseases. Dr. Flaherty has been an invited plenary session speaker at the American Thoracic Society International Conference in 2003, 2004, and 2005. He is a sought after consultative physician in pulmonary and critical care medicine. Dr. Flaherty's research is dependant on the presence of a growing well-characterized patient population. Dr. Flaherty played a key role in the establishment of a Fibrotic Lung Disease Network. This network of internists and surgeons throughout Michigan, Ohio, and Indiana refer patients with fibrotic lung diseases to the University of Michigan for ongoing NIH sponsored studies.

Recent and Significant Publications:

Flaherty KR, Andrei A, Fraley CL, Colby TV, Travis WD, Lama VN, Murray S, Kazerooni EA, Gross BH, Toews GB, Martinez FJ: Idiopathic Pulmonary Fibrosis: Prognostic value of baseline & serial changes in physiology and hallwalk. *Am J Respir Crit Care Med* 174(7):803-809, 2006.

Flaherty KR, King Jr TE, Raghu G, Lynch III JP, Colby TV, Travis WD, Gross BH, Kazerooni EA, Toews GB, Long Q, Murray S, Lama VN, Gay SE, Martinez FJ: Idiopathic interstitial pneumonia: What is the effect of a multi-disciplinary approach to diagnosis? Am J Respir Crit Care Med 170:907-910, 2004.

Flaherty KR, Mumford JA, Murray S, Kazerooni EA, Gross BH, Colby TV, Travis WD, Flint A, Toews GB, Lynch III JP, Martinez FJ: Prognostic implications of physiologic and radiographic changes in idiopathic interstitial pneumonia. Am J Respir Crit Care Med 168:543-548, 2003.

Flaherty KR, Thwaite EL, Kazerooni EA, Gross BH, Toews GB, Colby TV, Travis WD, Mumford JA, Murray S, Flint A, Lynch JP, Martinez FJ: Radiologic vs histologic diagnosis in UIP and NSIP: Survival implications. Thorax 58:143-148, 2003.

Flaherty KR, Travis WD, Colby TV, Toews GB, Kazerooni EA, Gross BH, Jain A, Strawderman III RL, Flint A, Lynch III JP, Martinez FJ: Histopathological variability in idiopathic interstitial pneumonia: Clinical implications. Am J Respir Crit Care Med 164:1722-1727, 2001.

Service: Dr. Flaherty had been appointed to two particularly important committees and boards at the University of Michigan. He serves as a member of the General Clinical Research Center (GCRC) Advisory Board Committee for the University of Michigan GCRC. This committee meets for several hours each month and is responsible for the review of proposals for use of the General Clinical Research Center and for the provision of advice regarding the management of the GCRC. Dr. Flaherty has served as a member for this committee since 2002. Dr. Flaherty is also a member of the Medical School Institutional Review Board (IRBMED) for investigation involving human subjects. Dr. Flaherty's appointment to this latter review board is evidence of his investigative skills and of his ethical and moral character. The importance of the work of IRBMED to the performance of clinical research cannot be over estimated.

External Review:

Reviewer A: "Dr. Flaherty has clearly established a national reputation as a leader in interstitial lung disease education."

Reviewer B: "He currently runs an international working group looking into the effects of smoking on the idiopathic interstitial pneumonias. This is a major collaboration and he has done an excellent job....He is among the very best clinical investigators of his generation..."

Reviewer C: "I have sited some of the more recent studies in which Dr. Flaherty has been the lead author and I can assure you that these are often quoted and considered state of the art in the diagnosis and management of these [IPF] patients."

Reviewer D: "Through his academic work and publications, Dr. Flaherty has positioned himself as one of the rising stars in clinical research related to interstitial/fibrotic lung disorders....Dr. Flaherty serves as the first author on several top-rated publications that have helped guide the clinical management of patients with interstitial lung disease. These papers are considered outstanding contributions to this field."

Reviewer E: “His work has appropriately received widespread acclaim, and has been honored by being showcased at the International meeting of the American Thoracic Society, the premier society for respiratory medicine worldwide, for each of the past four years....Dr. Kevin Flaherty is an outstanding academic physician, and I believe that any institution would be privileged to count him among its tenured faculty.”

Reviewer F: “His scholarly productivity has been substantially in excess of those whom I regard as his peers, and have led him to the forefront on the national stage....He is clearly destined for national and international leadership in the rapidly evolving field of interstitial lung disease.”

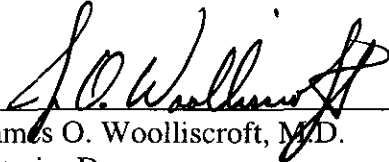
Reviewer G: “Dr. Flaherty has rapidly developed an international reputation in interstitial lung disease....I think his skills rank in the top 5% of his peers and his research efforts have contributed to the University of Michigan being one of the top five institutions for research into the diffuse lung diseases in the world.”

Reviewer H: “...all of the seminal work he has participated in reveals a deep clinical understanding of his patients. This is confirmed by the opinion provided by the trainees that he has interacted with. There is no question in my mind that Dr. Flaherty is a great clinician....His valuable contributions enhance the academic environment of your department and the medical school.”

Reviewer I: “Dr. Flaherty’s research has had a terrific impact on the field...Dr. Flaherty has done a terrific job of teaching the world about his findings, not only through publications, but also through well thought out presentations at national meetings, where he is now routinely chosen to be a speaker amongst the senior crowd in his field....He is now well recognized in the pulmonary community as an expert in the field of interstitial lung disease and through his research and publications; he has reshaped our approach to the diagnosis and treatment of interstitial lung disorders.”

Summary of Recommendation:

Dr. Flaherty is, beyond any doubt, a valuable institutional investigative, educational, administrative, and clinical resource. We are, therefore, delighted to recommend Dr. Flaherty for promotion to Associate Professor, with tenure, in the Department of Internal Medicine, Medical School.



James O. Woolliscroft, M.D.
Interim Dean
Lyle C. Roll Professor of Medicine

May 2007