

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Bethany B. Moore, Ph.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:

Ph.D.	1992	University of Texas
B.A.	1986	University of Texas

Professional Record:

2003-Present	Assistant Professor of Internal Medicine, University of Michigan
2000-2003	Assistant Research Scientist, Department of Internal Medicine, University of Michigan
1997-2000	Research Investigator, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Moore is a charismatic teacher of undergraduate, graduate and postdoctoral research trainees and a crucial resource for our research trainees. Her outstanding role as an educator is evidenced by her teaching evaluations and her national and international invited lectures. Dr. Moore was the course director and only lecturer for Internal Medicine 415/ Microbiology 415 "Introduction to Principles of Virology." She will teach this class each winter in the future. Dr. Moore completely designed this new undergraduate course. The importance of this course to the undergraduate curriculum is highlighted by topics considered including AIDS, SARS, Bird Flu, West Nile Virus, and bioterrorism. She has supervised six undergraduate students from the University of Michigan in the laboratory. She served as course director and the only lecturer for Immunology 850. Dr. Moore developed and designed the module entitled "Immunologic Methods in Animal Models," a repetitive model for Immunology 850. Dr. Moore is the thesis advisor for a graduate student, and is presently supervising a Ph.D. student rotation. Dr. Moore has been a particularly crucial research mentor for M.D. Pulmonary postdoctoral research fellows and Ph.D. research fellows. Dr. Moore has served as the mentor for two-year research training programs for Charles Ojielo, M.D., currently an Assistant Professor at Cook County Hospital in Chicago, IL, and for Vibha Lama, M.D., presently an Assistant Professor in the Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine at the University of Michigan. She is supervising one pulmonary fellow. She also has served as the mentor for Jill Kolodsick, Ph.D., a faculty member at Washtenaw Community College. Dr. Moore has served on the dissertation examination committee for four students in the Immunology graduate program. Finally, Dr. Moore plays a crucial role in the evaluation of trainees supported by the NIH T32 Institutional Training Grant. Research Mentoring committees are appointed for all pulmonary fellows (both M.D. and Ph.D. postgraduate trainees). Dr. Moore is responsible for the assignment of a committee for each fellow and for directing the meetings of

these thesis committees. She is responsible for the submission of evaluations from these meetings to the fellowship director.

Research: Dr. Moore has made important contributions to our understanding of the pathobiology of fibrotic lung disease and host defense following bone marrow transplantation. Dr. Moore has made four important observations since her appointment as an Assistant Professor. First, she has defined two important mechanisms whereby eicosanoids modulate pulmonary fibrosis. Second, Dr. Moore has demonstrated a role for CCR2 in the pathogenesis of pulmonary fibrosis. Third, Dr. Moore has demonstrated that IL-13 but not IL-4 promotes fibrotic responses in the lung. Fourth, Dr. Moore has identified a previously unrecognized phagocytic defect in alveolar macrophage following murine bone marrow transplant. Dr. Moore is the author of 43 peer reviewed published or in-press manuscripts and two book chapters. She is the first or senior author on twenty-two of these manuscripts. Her research has been published in highly respected journals, including the *Journal of Immunology*, *American Journal of Pathology*, *Journal of Clinical Investigation*, and *Proceedings of the National Academy of Science*. Dr. Moore has been a member of the NIH Mentored Scientists Special Emphasis Panel from 2002 until the present. She is also a member of the NIH F32 Mentored Postdoctoral Fellowship Review Panel. Dr. Moore is a member of the editorial board for *Current Immunology Reviews*, and reviews manuscripts for the *Journal of Immunology*, the *American Journal of Pathology*, the *Journal of Clinical Investigation*, and the *American Journal of Respiratory and Critical Care Medicine*. Dr. Moore has delivered invited lectures at the American Thoracic Society, the National Institutes of Environmental Health Sciences, the European Hematologic Society, the 12th International Colloquium on Lung Fibrosis (Switzerland), and the 13th International Colloquium on Lung Fibrosis (Alberta, Canada). Dr. Moore is a distinguished, cutting-edge, nationally recognized independent investigator who has uniquely defined that lipid mediators, cytokines, and chemokines interact in the pathogenesis of fibrotic lung disease.

Dr. Moore is the principal investigator of an RO1 and the recipient of a prestigious career investigator award from the American Lung Association. She is a co-investigator on two projects in an NIH-sponsored SCOR in Fibroliferative Lung Disease and a co-investigator on NIH grants awarded to Drs. Toews, Huffnagle, and Peters-Golden.

Recent and Significant Publications:

Moore BB, Kolodsick JE, Thannickal VJ, Cooke K, Moore TA, Hogaboam C, Wilke CA and Toews GB: CCR2-mediated recruitment of fibrocytes to the alveolar space following fibrotic injury and their differentiation into effector fibroblasts. *Am J Pathol* 166:675-684, 2005.

Moore BB, Ballinger MN, White ES, Green M, Podsiad AB, Wilke CA, Toews GB and Peters-Golden M: Bleomycin-induced E prostanoid receptor changes alter fibroblast responses to prostaglandin E₂. *J Immunol* 174(9):5644-9, 2005.

Kolodsick JE, Toews GB, Jakubzick C, Hogaboam C, Moore TA, McKenzie A, Wilke CA, Chrisman CJ and Moore BB: Protection from FITC-induced fibrosis in IL-13 deficient, but not IL-4 deficient mice results from impaired collagen synthesis by fibroblasts. *J Immunol* 172:4068-4076, 2004.

Kolodsick JE, Peters-Golden M, Larios J, Toews GB, Thannickal VJ, and Moore BB: Prostaglandin E₂ inhibits fibroblast to myofibroblast transition via E prostanoid receptor 2

signaling and cyclic adenosine monophosphate elevation. *Am J Resp Cell Mol Biol* 29:537-544, 2003.

Ojielo CI, Cooke KD, Mancuso P, Standiford TJ, Olkiewicz KM, Clouthier S, Corrion L, Ballinger MN, Toews GB, Paine R and Moore BB: Defective phagocytosis and clearance of *pseudomonas aeruginosa* in the lung following bone marrow transplantation. *J Immunol* 171:4416-4424, 2003.

Service: Dr. Moore is an active participant within the assembly structure of the American Thoracic Society. She is a member of the long-range planning committee of the Allergy, Infection and Inflammation Assembly. She has served as the Chair of the Allergy, Infection and Inflammation Membership Committee. Dr. Moore is a “go-to” person within this national assembly. Her commitment to diversity, international participation, and the development of investigators in training is widely appreciated.

External Review:

Reviewer A: “This work has had a significant impact on the research field and places Dr. Moore in the forefront of a major new field of investigation...Her participation in national and international meetings is increasingly sought and she is influential in forging investigations in a new field of cell biology related to the fibroblast and its precursors....She is an excellent faculty member and investment in her career will go well rewarded.”

Reviewer B: “Dr. Moore has made important contributions to our understanding of the pathogenesis of fibrotic lung disease....She has created a unique niche for herself, and I rank her in the top five percent of her peer group in terms of scientific accomplishment, scholarly activities and national service.”

Reviewer C: “I clearly would rank Beth among the top 5 to 10% of faculty in the respiratory field with a focus on molecular mechanisms of fibrotic lung disease....Because of this level of scholarship and contribution, I think of Beth as an emerging leader in this field.”

Reviewer D: “These papers are considered seminal papers in this area, with considerable clinical application in any number of diseases...”

Reviewer E: “She has clearly established herself as an authority in the field of pulmonary fibrosis. In particular, her work on prostanoid receptors is a seminal contribution to the field in that she explained a perplexing observation in experimental models of pulmonary fibrosis....Her national standing is clearly evident from the important roles she has played in the Allergy and Immunology section of the American Thoracic Society....She is one of the outstanding women investigators in pulmonary disease.”

Reviewer F: “Dr. Moore’s research has made seminal observations regarding the role of chemokines in the pathogenesis of various types of fibrotic lung disease....Dr. Moore has been very active on a national/international level, particularly in the American Thoracic Society – ATS, the preeminent international society dedicated to lung disease.”

Reviewer G: “Dr. Moore has made substantial and significant contributions to her field....Her work on pulmonary fibrosis has been defining and she has made several truly important observations related to the link between innate and adaptive immunity and pulmonary fibrosis.”

Summary of Recommendation:

Dr. Moore is an outstanding investigator who has made novel paradigm defining observations in pulmonary fibrosis. She is a nationally and internationally recognized investigator who has made important contributions to the Department of Internal Medicine. She is a capable and original thinker and a charismatic teacher of undergraduates, graduate students, and postdoctoral fellows. Dr. Moore has achieved national recognition for her scholarly accomplishments, has demonstrated excellence and commitment to undergraduate and postdoctoral fellow education, and has contributed significantly to the review process of the National Institutes of Health. I am delighted to recommend Dr. Bethany B. Moore for promotion to Associate Professor of Internal Medicine, with tenure.



Allen S. Lichter, M.D., Dean
*Newman Family Professor
of Radiation Oncology*

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