

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Vibha N. Lama, M.B.B.S., associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School, is recommended for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

M.S.	2003	University of Michigan
M.B.B.S.	1991	Dayanand Medical College, Ludhiana, Punjab, India

Professional Record:

2011-present	Associate Professor of Internal Medicine, University of Michigan
2005-2011	Assistant Professor of Internal Medicine, University of Michigan
2002-2005	Clinical Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: As a physician scientist, Dr. Lama truly values her ability to serve as a role model and introduce medical students, residents and fellows to academic life. She directly supervises medical students and residents during her inpatient clinical rotations and in the outpatient clinic setting. With her expertise in care of end stage lung disease and lung transplant patients, she introduces her trainees and students to the analytical thinking needed in complex cases along with a focus on empathy, handling ethical dilemmas, as well as end of life discussions. Dr. Lama is also responsible for mentoring undergraduate students, pulmonary fellows, and Ph.D. post-doctoral fellows. As a translational researcher with a basic science laboratory and a master's degree in clinical research, she is able to provide her trainees with a unique perspective. As a testament to her value as a mentor, two of her recent mentees have gone on to faculty positions at the University of Michigan.

Research: Dr. Lama has established a unique translational research program at the University of Michigan, combining clinical lung transplant research with a cutting edge stem cell biology laboratory and a novel murine model of lung transplantation. This combination has allowed her to make contributions with direct clinical impacts and she has received uninterrupted NIH funding since the beginning of her research career. Her laboratory is considered as the foremost laboratory established in lung-resident mesenchymal stem cells. In the clinical arena, her investigations in the lung transplant cohort have defined the physiological and biological markers of chronic rejection or bronchiolitis obliterans syndrome, the major cause of poor, long-term survival after lung transplantation. In 2011, she was appointed as the associate medical director of lung transplantation research and in 2014, she was appointed as the associate chief of translational research for the Division of Pulmonary and Critical Care Medicine. Since her appointment as an associate professor, Dr. Lama has published 27 peer-reviewed manuscripts,

seven as senior author. She serves on the editorial board for *Scientific Reports* (Nature) and is a reviewer for numerous journals such as the *American Journal of Respiratory and Critical Care Medicine*, *Clinical Immunology*, *European Respiratory Journal*, *Journal of Clinical Investigation*, and others.

Recent and Significant Publications:

Badri L, Walker NM, Ohtsuka T, Wang Z, Delmar M, Flint A, Peters-Golden M, Toews GB, Pinsky DJ, Krebsbach PH, Lama VN: Epithelial interactions and local engraftment of lung-resident mesenchymal stem cells. *Am J Respir Cell Mol Biol* 45:809-816, 2011.

Badri L, Lama VN: Lysophosphatidic acid induces migration of human lung-resident mesenchymal stem cells through the β -catenin pathway. *Stem Cells* 30:2010-2019, 2012.

Walker NM, Badri LN, Wadhwa A, Wettlaufer S, Peters-Golden M, Lama VN: Prostaglandin E2 as an inhibitory modulator of fibrogenesis in human lung allografts. *Am J Respir Crit Care Med* 185:77-84, 2012.

Belloli EA, Wang X, Murray S, Forrester G, Weyhing A, Lin J, Ojo T, Lama VN: Longitudinal forced vital capacity monitoring as a prognostic adjunct after lung transplantation. *Am J Respir Crit Care Med* 192:209-218, 2015.

Mimura T, Walker N, Aoki Y, Manning CM, Murdock BJ, Myers JL, Lagstein A, Osterholzer JJ, Lama VN: Local origin of mesenchymal cells in a murine orthotopic lung transplantation model of bronchiolitis obliterans. *Am J Pathol* 185:1564-1574, 2015.

Service: In her role as the Associate Chief of Basic and Translational Research, Dr. Lama promotes novel research initiatives and plays an active role in faculty recruitment and junior faculty mentoring. As the associate director for the Lung Transplant Research Program, she serves as a research mentor for pulmonary fellows and participates in career development committees for trainees and junior faculty. Dr. Lama is a member of the Medical School Admissions Executive Committee and the Student Biomedical Research Program Committee. She is a member of the Stem Cell Working Group and the Assembly on Respiratory Cell and Molecular Biology Program Committee at the American Thoracic Society. Clinically, her area of expertise is in end stage fibrotic lung diseases and lung transplantation. Dr. Lama is recognized in the clinical field for her expertise in bronchiolitis obliterans, a disease which is the primary manifestation of chronic lung allograft failure. She receives referrals for bronchiolitis obliterans, interstitial lung diseases and lung transplantation evaluations from across the region and participates in the care of these patients in collaboration with services such as Bone Marrow Transplant and Rheumatology. Dr. Lama has revised clinical protocols for the Lung Transplant Program and participates in the Lung Transplant Candidate Evaluation and Quality Improvement Committee.

External Reviewers:

Reviewer A: "...Dr. Lama is recognized nationally and internationally for her contributions to the field of lung transplantation and lung fibrosis....Dr. Lama's h index and funding record comfortably places her among the top 10% of investigators in the field of pulmonary medicine....Dr. Lama's laboratory has identified aberrancies in prostanoid synthesis and responsiveness as well as critical pathways regulating mesenchymal progenitor cell motility. This work reflects insight, creativity, persistence and resilience; all important characteristics of a professor who serves as a role model for trainees and early stage faculty."

Reviewer B: "...she is an outstanding physician-scientist who has made important discoveries related to the pathobiology lung transplant rejection and is becoming an internationally known leader in translational aspects of lung transplant research. She has done important work in discovering a role for mesenchymal stem cells in lung transplant rejection and more generally investigating fibroproliferation in the bronchiolitis obliterans syndrome. Dr. Lama is identified as a leader in the field of clinical and translational studies in lung transplantation."

Reviewer C: "...Dr. Lama has made important scientific contributions to the fields of pulmonary biology and lung transplantation and especially the role of MSC in lung allograft rejection and identification of new signaling pathways involved in the pathogenesis of BOS."

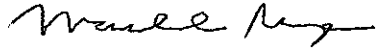
Reviewer D: "Dr. Lama's research on chronic lung allograft rejection is viewed as highly innovative as reflected by continuous NIH funding, and more importantly has had a major impact on this field of study....Dr. Lama has also published several key papers describing the utility of spirometric measurements in monitoring graft function in lung transplantation recipients. These publications have been highly influential [in] helping direct the evaluation and care of these patients....Dr. Lama is a nationally and internationally recognized expert in the field of lung transplantation and chronic allograft rejection and mechanisms of lung fibrosis. She has maintained continuous NIH funding and has served on NHLBI study sections. In my opinion, Dr. Lama is one of the top physician scientists investigating lung fibrotic disorders. Recognition of this is confirmed by her election the American Society of Clinical Investigation."

Reviewer E: "...she has an impressive record of funding with R01 support. She is currently a Principal Investigator on four R01 grants and the co-Principal Investigator on one other R01. As further evidence of her accomplishments, Dr. Lama has been an invited speaker at both national and international meetings. Her work is frequently cited. She clearly meets the criteria for ongoing scholarship, productive research, extramural funding, and has also been a mentor for several post-doctoral fellows in research."

Reviewer F: "She is an attentive and dedicated mentor. Dr. Lama makes it a point to introduce her trainees to other investigators in the field and gives them opportunities to present their work at major meetings. She supports the work of junior investigators, and always takes time at meetings to go to their posters, discuss their science and offer help. She is delighted to brainstorm about science and is a great sounding board for ideas and discussion....Dr. Lama is clearly one of the leaders in the field of pulmonary fibrosis and injury, and has made seminal observations in the field that have challenged and changed several paradigms."

Summary of Recommendation:

Dr. Lama is an outstanding physician scientist who is dedicated to training and inspiring the next generation of scientists in her field. Her clinical expertise, record of funding, and educational contributions provide strong support for her promotion and I am therefore please to recommend Vibha N. Lama, M.B.B.S. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School

May 2016