

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE
DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

Robert P. Dickson, M.D., 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.	2007	Duke University
B.A.	2000	St. John's College

Professional Record:

2019-present	Assistant Professor of Microbiology and Immunology, University of Michigan
2015-present	Assistant Professor of Internal Medicine, University of Michigan
2014- 2015	Clinical Lecturer of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Dickson teaches the Introduction to Respiratory sequence and Core Internal Medicine rotation to medical students along with a class entitled Teaching Science to Scientists which is a component of the Empowering Educators elective. He hosts a how to series to residents, a boot camp for pulmonary fellows covering topics such as tuberculosis and ventilator-associated pneumonia and a core research series grant writing seminar. Dr. Dickson teaches lung microbiome at post-graduate courses, including the American Thoracic Society and European Respiratory Society International conferences. Dr. Dickson is an effective teacher, as is evidenced through several teaching awards, including the Outstanding Teacher Award presented by the pulmonary and critical care fellows, the H. Marvin Pollard Award for Outstanding Teaching of Residents, and a special recognition for his contributions to the House Officer Teaching Program. Dr. Dickson serves as the associate program director for research within his division and provides mentorship and training to fellows progressing in the research training portion of their program.

Research: Dr. Dickson is a recognized leader in the study of lung microbiome and the microbiome's role in critical illness. He is considered a field-leading expert in microbiology, which benefits multiple disciplines, including respiratory pathophysiology, basic microbiology, clinical microbiology, critical care medicine and infectious diseases. Dr. Dickson has published more than 50 peer-reviewed articles and has been invited to present his research on 29 occasions regionally, nationally and internationally. He has been well funded for his research through the National Institutes of Health, the Department of Defense and institutional grants. His research excellence has been recognized through numerous awards, including the Bruce C. Richardson

M.D. Department of Internal Medicine Early Career Endowment Award the Young Physician-Scientist Award from both the American Society of Clinical Investigation and the American Thoracic Society and the Rising Star Award granted by the American Thoracic Society Science and Innovative Center through the Pulmonary Infections and Tuberculosis Assembly. Dr. Dickson expertise is further recognized with selection to serve on the steering committee for PROBINBA, an international 20-center cluster randomized trial.

Recent and Significant Publications:

O'Dwyer DN, Ashley SL, Gurczynski SJ, Xia M, Wilke CA, Falkowski NR, Norman KC, Arnold KB, Huffnagle GB, Salisbury ML, Han MK, Flaherty KR, White ES, Martinez FJ, Erb Downward JR, Murray S, Moore BB, Dickson RP: Lung microbiota contribute to pulmonary inflammation and disease progression in pulmonary fibrosis. *Am J Respir Crit Care Med* May;199(9):1127-1138, 2019.

Dickson RP, Erb-Downward JR, Falkowski NR, Hunter EM, Ashley SL, Huffnagle GB: The lung microbiota of healthy mice are highly variable, cluster by environment, and reflect variation in baseline lung innate immunity. *Am J Respir Crit Care Med*; Aug 15;198(4):497-508, 2018.

KM, Erb-Downward JR, Bao Y, Branton WR, Falkowski NR, Newton DW, Huffnagle GB, Dickson RP: Rapid pathogen identification in bacterial pneumonia using real-time metagenomics. *Am J Respir Crit Care Med* 196(12):1610-1612, 2017.

Dickson RP, Erb-Downward JR, Freeman CM, McCloskey L, Falkowski NR, Huffnagle GB, Curtis JL. Bacterial topography of the healthy human lower respiratory tract. *mBio*; 8(1), 2017.

Dickson RP, Singer BH, Newstead MW, Falkowski NR, Erb-Downward JR, Standiford TJ, Huffnagle GB. Enrichment of the lung microbiome with gut bacteria in sepsis and the acute respiratory distress syndrome. *Nat Microbiol*; 1:16113, 2016.

Service: Dr. Dickson's clinical interests are in acute and chronic lung diseases and acute respiratory distress syndrome. He has a unique clinical expertise in microbiology of the intensive care unit and serves as an inpatient attending on the Critical Care Medicine Unit. Institutionally, he serves as the associate director of the Michigan Center for Integrative Research in Critical Care, as the medical director of the Washtenaw County Tuberculosis clinic, and as the associate program director for research for the pulmonary and critical care fellowship program. Nationally, Dr. Dickson serves on the editorial board for *Lancet Respiratory Medicine*, the *American Journal of Respiratory and Critical Care Medicine*, and the *European Respiratory Journal*, and as the associate editor for *Microbiome*. He is a specialist editor for the *European Respiratory Journal*. He is a member of several NIH study sections and as a journal review for over 30 journals including the *New England Journal of Medicine*, *Chest* and *Nature Microbiology*. Dr. Dickson is an ad hoc grant reviewer for international organizations including the Northern Ireland Chest Heart & Stroke agency and the Rosetrees Trust, a United Kingdom medical research charity.

External Reviewers:

Reviewer A: "I believe these papers are showing a high level of thoughtfulness (defining highly relevant questions to bring the field forward) creativity in the approaches used to address these

questions, interdisciplinarity as he applies a host-pathogen-based approach including complex cellular immunology, microbiology and use of a continuously changing field of state-of the art techniques to ultimately get to clear and useful answers. This is underlined by the continuous publication of his work in high impact journals as well as his capability to obtain a high number of often large competitive grants, as well as receiving many credits in the form of awards. As such he can be regarded as an expert in the the [sic] broader field of respiratory infection biology as well as the respiratory microbiome and diagnostics of respiratory pathology specifically.”

Reviewer B: “Robert has continuously impressed me as a thoughtful, productive, and timely researcher...Dr. Dickson has made creative contributions to the fields of the lung microbiome in health, critical illness and lung fibrosis. His work is innovative, and paradigm shifting...This seminal work has been very highly cited...He is a clear, thoughtful, and articulate speaker, I have invited him to speak because of his combination of skill, experience, and performance...In short, Dr. Robert Dickson is an outstanding faculty member with a high stature in the field, a solid national reputation, and a high level of innovative research productivity...Michigan is lucky to have him.”

Reviewer C: “He is absolutely at the forefront of his field. Perhaps more than anyone else he has helped us understand the microbiome of healthy lungs...Dr. Dickson’s research is notable for moving beyond associative analyses in order to directly test hypotheses, often using creative experimental disease. The quantity, quality, and focus of his work have had a major scholarly impact, changing the way the world understands the microbiome of the lung... Finally, I would add that Dr. Dickson’s reviews are additional scholarly publications of outstanding impact. He is recognized as one of the very top researchers and experts in the lung microbiome. His service contributions are numerous and meaningful...I have written many letters like this, and this was one of the very easiest assessments I have ever faced, with a very clear recommendation. Dr. Dickson should be tenured and promoted.”

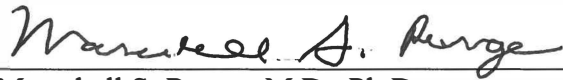
Reviewer D: “Dr. Dickson is already one of the ‘go-to’ scientists for any questions related to the lung microbiome...As the section editor of COPD at ERJ, I frequently ask Dr. Dickson for his scientific opinion on submitted manuscripts that deal with the lung microbiome...Dr. Dickson’s lab is well-funded by NIH and other organization for nearly \$3 million as a PI. His papers have already had a tremendous impact on the field. For instance, the *mBIO* paper that described the bacterial topology of the health human lower respiratory track and been cited 189 [sic] though it was published only in 2015 (source: Web of Science.) According to the Web of Science, Dr. Dickson has 8 highly cited papers as of April, 2019...At our institution, based on Dr. Dickson’s track record, he would have already received a promotion to an Associate Professor.”

Reviewer E: “I have followed Dr. Dickson’s pioneering work closely and often seek his expertise as a reviewer for articles dealing with the microbiome, where he is an acknowledged international expert...Dr. Dickson ranks as one of the best reviewers I have ever worked with in my 10 years as Associate Editor for ... and the Journal recognized his contributions as such in 2018 with a special recognition award. There is absolutely no question that Dr. Dickson meets, and in many instances exceeds, the thresholds for promotion to Associate Professor at the University of Michigan. This would certainly be the case for promotion to a similar rank at [my institution]...His history of extramural NIH funding is excellent and uninterrupted. Dr. Robert Dickson is a one-of-a-kind

clinician scientist and you are fortunate to have him in your ranks. He represents the University of Michigan with class and distinction. This should be an easy decision for the committee.”

Summary of Recommendations:

Dr. Dickson is an outstanding clinician scientist who is making broad strides in the study of lung microbiome. His team science approach in providing methodological and clinical expertise to several disciplines strengthens the understanding of pulmonary and immunology and influences others to apply these concepts to their own research. I am pleased, therefore, to recommend Robert P. Dickson, M.D. 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.



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

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