

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

John J. Osterholzer, M.D., 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.D.	1999	University of Michigan, Ann Arbor, MI
B.S.	1994	University of Michigan, Ann Arbor, MI

Professional Record:

2016-Present	Associate Professor of Internal Medicine (with tenure), University of Michigan
2010-2016	Assistant Professor of Internal Medicine, University of Michigan
2006-2009	Clinical Lecturer of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Osterholzer teaches pulmonary and critical care medicine to medical students, residents, and fellows at the Veterans Affairs Ann Arbor Healthcare System (VAAHS). His distinction in clinical teaching is reflected in his evaluations where he is consistently ranked very good to excellent. Dr. Osterholzer's leadership and creativity in education are reflected by his role as a co-founder of the "M-Talk Compassionate Communications Skills Curriculum." This program was established in 2017 by Dr. Osterholzer, and two colleagues, to improve the communication skills of Internal Medicine House Officers. Since the inception of this curriculum, they have delivered training to over 1,300 medical students, residents, fellows, and faculty members from multiple clinical departments including Internal Medicine, Family Medicine, Anesthesia, Emergency Medicine, and Pathology. Dr. Osterholzer's prowess in clinical education is most evident when on service as the faculty attending at the VAAHS Medical Intensive Care Unit, with a training style that emphasizes "real-time learning." In addition to teaching the pathophysiology of critical illness, his goal is to ensure that trainees apply this information in a manner that accounts for each patient's unique health-related goals and priorities. Dr. Osterholzer also engages in research training. He mentors undergraduate students in the Undergraduate Research Opportunity Program, graduate students, and post-doctoral fellows supported by funding from the National Institutes of Health T32 training grants, and serves on the Career Advisory Committees for numerous junior faculty members. Dr. Osterholzer's teaching style is a model for the importance of compassion and empathy in care delivery, as evidenced by his induction into the Gold Humanism Honor Society in 2020.

Research: Dr. Osterholzer's initial research focus was aimed at understanding the contribution of lung myeloid cells, including dendritic cells, macrophages, and monocytes, to pulmonary host defenses against cancer and fungal lung infections. More recently, and to be increasingly responsive to the needs of Veterans, his research focus has shifted to elucidating the pathologic

mechanisms through which myeloid cells contribute to lung fibrogenesis, following sustained injury to the alveolar and airway epithelium. As such, his basic, clinical, and translational investigations have prioritized the emerging field of deployment-related respiratory disease. These efforts led to a New Investigator Award funded by the Department of Defense's Gulf War Veteran Illness Research Program (2017-22), a renewal of his VA Merit Award (2019-23), and co-investigator status on several grants obtained by his collaborators. Dr. Osterholzer's most significant contributions have been related to constrictive bronchitis, a specific kind of deployment-related respiratory disease (DRRD) often experienced by Veterans. Most recently, he described a novel murine model of club cell injury and airway fibrosis which recapitulates findings identified in military personnel with constrictive bronchiolitis. In partnership with the Department of Radiology, Dr. Osterholzer utilized a novel CT analytical technique that helped him become the first to demonstrate that the degree of functional small airways disease in military personnel with constrictive bronchiolitis is increased relative to controls and more severe than patients who have moderate chronic obstructive airways disease. These findings validate the symptoms experienced by Veterans with constrictive bronchiolitis and have identified an exciting new approach to diagnosing this condition. In recognition of his expertise in the field of DRRD, Dr. Osterholzer was invited to join the Post Deployment Cardio-Pulmonary Evaluation Network (PDCEN). The PDCEN is a 5-VA collaboration funded through the Airborne Hazards and Open Burn Pit Center of Excellence, with an overarching objective to provide outstanding Veteran-specific clinical care for patients with DRRD while simultaneously advancing research for this disorder. As the Ann Arbor VA site director, Dr. Osterholzer oversees a \$250,000 annual budget to develop, orchestrate, and expand the program. Dr. Osterholzer is well-published with 53 peer-reviewed original research publications with many being published in leading journals such as *The New England Journal of Medicine*, *the American Journal of Pathology*, and *The Journal of Immunology*.

Recent and Significant Publications:

- Davis CW, Lopez CL, Bell AJ, Miller RF, Rabin AS, Murray S, Falvo MJ, Han MK, Galban CJ, Osterholzer JJ, "The Severity of Functional Small Airways Disease in Military Personnel with Constrictive Bronchiolitis as Measured by Quantitative CT," *Am J Respir Crit Care Med*: 2022. PM35608541
- Rabin AS, Davis CW, Sotolongo AM, Falvo MJ, Osterholzer JJ, "A Burning Question," *N Engl J Med* 386 (14): 1352-1357, 2022. PM35388671
- Teitz-Tennenbaum S, Viglianti SP, Jomma A, Palone Q, Andrews H, Selbmann KN, Lahiri S, Subbotina N, Walker N, Perl AT, Lama VN, Sisson TH, Osterholzer JJ, "Sustained Club Cell Injury in Mice Induces Histopathologic Features of Deployment-Related Constrictive Bronchiolitis," *Am J Pathol* 192(3): 410-425, 2022. PM34954211
- Teitz-Tennenbaum S, Viglianti SP, Roussey JA, Levitz SM, Olszewski MA, Osterholzer JJ, "Autocrine IL-10 Signaling Promotes Dendritic Cell Type-2 Activation and Persistence of Murine Cryptococcal Lung Infection," *J Immunol* 201(7): 2004-2015, 2018. PM30097531/PMID30097531/PMC6145088
- Roussey JA, Viglianti SP, Teitz-Tennenbaum S, Olszewski MA, Osterholzer JJ, "Anti-PD-1 Antibody Treatment Promotes Clearance of Persistent Cryptococcal Lung Infection in Mice," *J Immunol* 199(10): 3535-3546, 2017. PM29038249/PMC5687305

Service: Dr. Osterholzer is an outstanding clinician who provides patient care at the Veterans Affairs Ann Arbor Healthcare System. In addition to his superb clinical skills, Dr. Osterholzer has

excelled in his citizenship within Michigan Medicine and beyond. Institutionally, he has served on the VA Critical Care Operating Committee (serving as the chair in 2016), the Life Sustaining Treatment Decision Initiative Implementation Working Group, and the COVID 19 Response Scare Resource Utilization Allocation and Triage Committees. In 2016, Dr. Osterholzer served as the interim pulmonary section chief for the VA Ann Arbor Health System and, since 2019, has served as the site lead for the Ann Arbor VA location of the Post-Deployment CardioPulmonary Evaluation Network. Nationally, Dr. Osterholzer is a member of the American Association of Immunologists (AAI), the American Society of Microbiologists (ASM) the American Thoracic Society (ATS), and, throughout his career, has served on numerous ATS committees. Dr. Osterholzer's expertise and dedication to service are evidenced by his recent participation as an expert panelist on a study of deployment-related respiratory disease and his contribution to a Department of Defense workshop, which sought to identify grant-funding priorities for the Toxic Exposure Research Program. Dr. Osterholzer currently serves as an ad-hoc reviewer for numerous research journals and has served as a grant reviewer with the AIDS, Opportunistic Infections, and Cancer Program through the National Institutes of Health AIDS and Related Research Integrated Review Group, as well as the VA Office of Research and Development. He also serves as an ad-hoc peer reviewer for leading industry journals including *Critical Care Medicine*, *Life Sciences*, the *Journal of Occupational and Environmental Medicine*, and the *American Journal of Respiratory and Critical Care Medicine*.

External Reviewers:

Reviewer A: "It is very clear that Dr. Osterholzer takes pride in his role as an educator, and works with many clinical fellows, post doctorate trainees, and undergraduate students. He has served on many T32 training research fellow [sic] and junior faculty advisory committees and clearly is considered a premier and values [sic] mentor and role model. He has made special efforts to improve his personal academic communication skills, and to widely disseminate these precious skills to students, trainees and colleagues."

Reviewer B: "My impression of his scholarly works are that they [sic] of very high quality and having a major national impact: he is publishing in very high quality journals, he is productive with over 50 publications (excellent given that he is publishing in high quality journals) and he is publishing both clinical and basic research. In particular, I note that he has recently published two very significant research papers on deployment related lung disease, one a basic science paper using a mouse model of disease, and the other a clinical paper describing radiological features of disease. He was also the senior author of a clinical paper on deployment related lung disease in the New England Journal of Medicine this year, clear evidence that he is nationally/internationally recognized as an expert in this area."

Reviewer C: "Dr. Osterholzer's standing in relationship to others in his field is excellent. He has a national reputation in his field and gives presentations at regional and national meetings. He has served as an ad hoc grant reviewer for the VA and has consistently served as a reviewer for scientific journals. His service contributions to the VA, and to the University of Michigan are numerous...Dr. Osterholzer's promotion application materials indicate that he has made sustained and impactful contributions to the scientific field. His efforts in mentoring, education and service are meritorious."

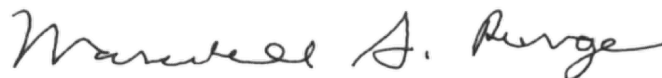
Reviewer D: “His efforts have been supported by NIH and VA grants, and he has had a longstanding history of active extra-mural funding. He is currently the principal investigator on a VA Merit Review Award on Examining Deployment-Related Chronic Lung Disease in Gulf War Veterans and a coinvestigator on another VA Merit Review Award: Evaluating Immune Defenses in Pathobiology of CNS Infection, and a coinvestigator on an NIH grant examining Macrophage Activation in Lung Fibrosis. In my opinion, this level of funding is appropriate for someone who is ready for promotion to Professor of Medicine.”

Reviewer E: “With regard to his standing in the field, Dr. Osterholzer’s work and record of invited presentations already argued for an international presence in the field of the immunobiology of fungal infection, and I have always considered him a leader in this area. His more recent work on bronchiolitis is really quite exciting, and his publication record and record of presentations speak to international prominence here as well.”

Reviewer F: “Dr. Osterholzer’s contributions indicate distinction in patient care, research, service, and mentorship. The particular aspects of patient care are of great service to our veteran population and are timely with the recent passage of the PACT ACT by President Biden...Dr. Osterholzer has established himself as the primary specialist in deployment-related chronic lung disease as well as pathogenesis of interstitial and inflammatory lung disease. This has certainly been of national and international importance and added value and prestige to the institution for the understanding of these disease processes. His grants and papers resulting from his research are extensive and important.”

Summary of Recommendation:

Dr. Osterholzer is an exceptional physician scientist, effective teacher, and outstanding clinician. He has established himself as a strong contributor to our research, clinical, and teaching missions. Therefore, I most enthusiastically recommend John J. Osterholzer, M.D. 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

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