

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

David J. Miller, M.D., Ph.D., 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, is recommended for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, and professor of microbiology and immunology, without tenure, Department of Microbiology and Immunology, Medical School.

Academic Degrees:

Ph.D.	1996	Mayo Graduate School, Mayo Clinic and Foundation, Rochester, MN
M.D.	1996	Mayo Medical School, Mayo Clinic and Foundation, Rochester, MN
B.S.	1989	University of Wisconsin- Madison

Professional Record:

2009-present	Associate Professor of Internal Medicine, and Associate Professor of Microbiology and Immunology, University of Michigan
2003-2009	Assistant Professor of Internal Medicine, and Assistant Professor of Microbiology and Immunology, University of Michigan
2000-2003	Clinical Instructor, Department of Medicine, University of Wisconsin

Summary of Evaluation:

Teaching: Dr. Miller is an excellent all-around educator who dedicates time to teaching the next generation of specialists in several settings. He has mentored four Ph.D. candidate graduate students who successfully defended their theses in the past five years. He has also lectured as part of a number of graduate level courses and served as a small group discussion leader for the Medical School. In the past four years, he has been on 11 doctoral thesis committees and helped mentor junior faculty members. Dr. Miller is an active teacher in the clinical setting when he is a consult attending on the infectious disease inpatient service where he teaches house officers rotating through the division.

Research: Dr. Miller's research is in virology and can be categorized into three specific areas: molecular mechanisms of viral replication, viral pathogenesis and innate immunity, and antiviral drug discovery and development. He has established and maintained a productive, collaborative, and well-funded research program with significant contributions to both basic science and translational medicine. Dr. Miller has 38 peer-reviewed publications overall and ten since the time of his last promotion, including eight of these ten as senior author. His work regularly appears in top-tier journals such as the *Journal of Immunology* and the *Journal of Virology*. In

recognition of his accomplishments, Dr. Miller was elected to the American Society of Clinical Investigation (ASCI) in 2012.

Recent and Significant Publications:

Peng W*, Peltier DC*, Larsen MJ, Kirchhoff PD, Larsen SD, Neubig RR, Miller DJ: The identification of thieno[3,2-b] pyrrole derivatives as novel small molecule inhibitors of neurotropic alphaviruses. *J Infect Dis* 199:950-957, 2009 (* equal contribution).

Peltier DC, Simms A, Farmer JR, Miller DJ: Human neuronal cells possess functional cytoplasmic and Toll-like receptor-mediated innate immune pathways influenced by phosphatidylinositol-3 kinase signaling. *J Immunol* 184:7010-7021, 2010.

Weeks SA, Shield WP, Sahi C, Craig EA, Rospert S, Miller DJ: A targeted analysis of cellular chaperones reveals contrasting roles for heat shock protein 70 in Flock House virus RNA replication. *J Virol* 84:330-339, 2010.

Sindac J, Yertrepsky BD, Bolduc KL, Barazza SJ, Blakely PK, Keep RF, Irani DN, Miller DJ, Larsen SD: Novel inhibitors of neurotropic alphavirus replication that improve host survival in a mouse model of acute viral encephalitis. *J Med Chem* 55:3535-3545, 2012.

Peltier DC, Lazear HM, Farmer JR, Diamond MS, Miller DJ: Neurotropic arboviruses induce interferon regulatory factor 3-mediated neuronal responses that are cytoprotective, interferon-independent, and inhibited by western equine encephalitis virus capsid. *J. Virol* 87:1821-1833, 2013.

Service: Dr. Miller provides patient care as an attending on the consult service for the Division of Infectious Disease. From 2009-2012, 20% of his effort was devoted to clinical care, however in 2013 he voluntarily increased his clinical effort to 30% to assist with demand. In addition to his patient care duties, Dr. Miller also sits on the institutional Biosafety Committee and the University of Michigan Biological Safety Program Leadership Team. Nationally he has provided service to the American Society for Virology by chairing their membership review committee. Dr. Miller is an ad hoc journal reviewer for many prestigious publications including the *Journal of Infectious Diseases*, *Journal of Virology*, and the *Journal of Medical Microbiology*. Dr. Miller was an ad hoc grant reviewer for four external organizations (National Science Foundation, U.S. Army Medical Research and Material Command, Wellcome Trust, and the NIH/NIAID). Furthermore, he has served on five different NIH/NIAID Special Emphasis Panel study sections since 2010.

External Reviewers:

Reviewer A: "He is a gifted scientist and gives amply of his talents in the teaching and training of students and fellows. He has made important contributions to an understanding of RAN virus pathogenesis and antiviral drug development and is on a research trajectory to make even more important contributions in the future."

Reviewer B: "Dr. Miller's contributions are broad, of high quality and include a new productive direction. He is a talented and versatile scientist who is likely to continue making important contributions."

Reviewer C: "Of note, the fact that Dr. Miller recently became an elected member of the ASCI (the most competitive physician scientist organization) is also testament to the importance and quality of his work."

Reviewer D: "Dr. Miller's work has been published in excellent journals such as the Journal of Virology and The Journal of Immunology....Dr. Miller's work has been funded nearly continuously by N.I.H. grants from 2000. He is presently funded by an R01 and an R21 grant from the N.I.H. [sic], which is impressive in these times of financial constraints."

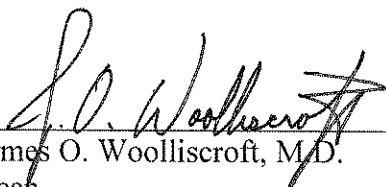
Reviewer E: "David Miller's research is rigorous, thorough, and innovative. He is very well respected in the field....His work is both creative and interdisciplinary....He is smart, dedicated to high quality research, and possesses the tools and expertise to continue to make important contributions to biomedicine."

Reviewer F: "He holds five patents for his work which is noteworthy. His accomplishments have recently been recognized nationally as he was elected to the ASCI in 2012, a major accomplishment....His work is innovative and of importance to the field. Importantly he has made strides in the translation of his research in terms of drug discovery and continues to be an effective collaborative scientist"

Reviewer G: "As a result of the innovative nature of his anti-viral studies, Dr. Miller was awarded a new five-year R01 grant from NIH as well as a two-year R21 grant during the current review period. These are very significant accomplishments for investigators at any stage of their careers..."

Summary of Recommendation:

Dr. Miller is an innovative physician-scientist who is committed to teaching and patient care. Dr. Miller is an exceptional clinician and scholar who is highly regarded by his peers and serves the university with dedication. He has demonstrated excellent academic leadership and I enthusiastically support David J. Miller, M.D., Ph.D. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, and professor of microbiology and immunology, without tenure, Department of Microbiology and Immunology, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

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