

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

Jane C. Deng, M.D., M.S., associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School, is recommended for appointment to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

M.D.	1997	University of California, San Francisco
M.S.	1995	University of California, Berkeley
B.A.	1992	Northwestern University

Professional Record:

2016-present	Associate Professor of Internal Medicine, with tenure, University of Michigan
2013-2016	Associate Professor of Medicine, David Geffen School of Medicine, UCLA
2008-2016	Assistant Professor of Medicine, David Geffen School of Medicine, UCLA
2007-2008	Staff Physician, Southern California Kaiser Permanente Group
2005-2007	Assistant Professor of Medicine, David Geffen School of Medicine, UCLA
2004-2005	Clinical Lecturer of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Deng has been actively involved in teaching and mentoring throughout her career. She considers teaching and mentoring an integral component of her professional work and derives a great amount of personal satisfaction and enjoyment from mentoring students, residents, and fellows who are interested in academic careers in research. A small portion of her effort has involved teaching in the clinical setting, with the majority of her teaching effort directed toward one-on-one teaching of graduate and post-graduate students in her lab. Not only does she help trainees and junior faculty formulate addressable and important research questions and assist in their research, but she is also a superb teacher of concepts related to the modeling of respiratory viral infections, murine sample processing and collection, and molecular techniques for assessing pulmonary and systemic host defense. Throughout her career, she has formed many notable, long-term mentoring relationships that have resulted in numerous publications. Her trainee evaluations are outstanding, with many commenting on her enthusiasm, kindness, teaching excellence at bedside, and her focus on patient-centered care.

Research: Dr. Deng is a superb physician-scientist with a primary investigative focus on innate pulmonary host defense. Her research has made many significant contributions to the field and have bettered our understanding of the molecular bases of the clinical pathophysiology of lung infection, including sepsis, post-influenza infection, and post COVID-19 complications. She is widely considered a national expert in her field, as evidenced by her numerous invitations to participate in national and international speaking opportunities. Since assuming her role as pulmonary section chief at the Veterans Affairs Ann Arbor Healthcare System (VAAHS),

Dr. Deng has also developed a keen interest in improving outcomes of care for veterans with lung cancer. In collaboration with a junior faculty member, she is studying the barriers to timely care, at the Veterans Affairs Ann Arbor Healthcare System after detection of early-stage lung cancer. She has also successfully led the effort for the Veterans Affairs Ann Arbor Healthcare System to be selected as a site for the Veterans Affairs Cooperative Studies Program Clinical Trial (VALOR). In this trial, veterans with early-stage lung cancer are being randomized to receive Stereotactic Body Radiation Therapy (SBRT) or surgical resection.

Her research efforts have resulted in 41 peer-reviewed publications, many in leading journals including the *Journal of Clinical Investigation*, *Frontiers in Immunology*, and *Chest*. Dr. Deng has been a principal investigator or co-principal investigator of three National Institute of Health R01 grants, one K08 award, and numerous U.S. Department of Veterans Affairs and industry grants. Her expertise in viral-bacterial co-infections is further evidenced by her service on the editorial boards for the journal *American Journal of Respiratory Cell and Molecular Biology* and *AJP-Lung*, two leading pulmonary journals.

#### Recent and Significant Publications:

- Albin O, Mills JP, Saint S, Swanson M, Deng JC, “A ‘Fluid’ Diagnosis,” *N Eng J Med* 385(23): 2180-85, 2021. 34874634
- Melamed KH, Williams J, Wang X, Hu S, Nguyen C, Cui J, Deng JC, “Development of secondary bacterial pneumonia in adults presenting with influenza versus noninfluenza viral respiratory infection,” *Thorax* 14: 1753466620963026, 2020. PM33121394/PMC7607758
- Kulkarni U, Zemans RL, Smith CA, Wood SC, Deng JC, Goldstein DR, “Excessive neutrophil levels in the lung underlie the age-associated increase in influenza mortality,” *Mucosal Immunol* 12(2): 545-554, 2019. PM30617300/PMC6375784
- Hanada S, Pirzadeh M, Carver KY, Deng JC, “Respiratory Viral Infection-Induced Microbiome Alterations and Secondary Bacterial Pneumonia,” *Front Immunol* 9: 2640, 2018. PM30505304/PMC6250824
- Zider AD, Zopey R, Garg R, Wang X, Wang TS, Deng JC, “Prognostic significance of infections in critically ill adult patients with acute liver injury: a retrospective cohort study,” *Liver International* 36(8): 1143-1150, 2016. PM26801954/PMC6023407

Service: Dr. Deng has a strong record of service. She is an outstanding clinician who provides patient care to veterans at the Veterans Affairs Ann Arbor Health System. This includes the management of severe asthma, chronic ventilatory support, advanced bronchoscopy procedures, and deployment related lung diseases. She has particularly expertise in caring for veterans with interstitial lung disease (ILD). In addition to providing outstanding clinical care and her exceptional scholarly pursuits, Dr. Deng has been actively involved at Michigan Medicine and beyond. At the university, she has served on the Department of Internal Medicine’s curriculum vitae review committee, as well as the Pulmonary and Critical Care Fellowship’s Clinical Competency Committee. Her most significant service contribution has been her leadership as the pulmonary section chief at the Veterans Affairs Ann Arbor Health System. Since assuming the position in 2016, the section has been regularly recognized as one of the highest performing section by the facility, evidenced by exceptionally high employee satisfaction scores and consistently high Veteran satisfaction scores.

Evaluation of her leadership has been uniformly positive by faculty. In 2021, she was the recipient of the Veterinary Affairs Ann Arbor Medicine Service Kemp B. Cease Clinician of the Year Award, as a result of her unwavering leadership during the COVID-19 pandemic. At the national level, she has served on numerous committees for the Allergy and Immunology Assembly (AIA) and the American Thoracic Society (ATS). She has also served as an ad-hoc grant reviewer for the National Institutes of Health and the Veterinary Affairs and recently accepted an appointment to become a permanent study section member for Immunity and Host Defense (IHD). At the international level, she has received invitations to review grants for government health agencies (National Institutes of Health equivalent) of the Netherlands and France.

External Reviewers:

Reviewer A: “Dr. Deng’s value as a faculty member at Michigan has been well substantiated by her body of work. In tracking her academic career, I would hold Dr. Deng up to as an extremely strong case study in how to build a career as a physician-scientist in translational pulmonary medicine and believe her to be an effective role model for students, postdoctoral fellows, and junior investigators who seek a career in academic biomedical research...She has proven herself an excellent scientist, clinician, educator, and colleague...”

Reviewer B: “I have no hesitation in offering Dr. Deng my strongest endorsement for promotion. She is an exceptional physician, educator, and scholar and displays all of the characteristics of a talented clinical investigator. She has proven to be highly creative in her scholarly and clinical activities, and she is recognized across the pulmonary community for her independent contributions to the field.”

Reviewer C: “Dr. Deng’s current research interest focuses on influenza and she is a nationally and internationally recognized leader in the field...I can state categorically that I have an extremely high opinion of Jane Deng as an academic scholar and colleague. Her reputation in our field is being a highly collaborative and unselfish investigator, and this is reflected by the fact that many of her published manuscripts reflect the ‘team science’ era of clinical investigation in which she has spent her career...Jane Deng is an accomplished ‘triple threat’ and has a deserved reputation in pulmonary medicine as a gracious colleague and collaborator who has developed into a true thought leader in airway immunity during critical illnesses.”

Reviewer D: “Dr. Deng has made seminal insights into [sic] mechanism of host defenses in acute respiratory infection. She identified type I immunity and particularly IFN- $\gamma$  can limit Legionella infection and she also identified a critical role of STAT4 in host resistance against pulmonary *K. pneumoniae* infection. She moved on to set up highly clinically relevant models of pneumonia in the context of sepsis – a known complication of sepsis...She has an exemplary record of accomplishment in teaching, mentoring and University/Administrative service...I expect Dr. Deng to make continued novel insights into pulmonary host defense and issues relevant to Pulmonary/Critical Care Medicine in research, education, and service.”

Reviewer E: “Based on the quality of her research, scholarly work, creative contributions, teaching, and service, I believe she is one of the outstanding physician scientists in our field. Her published work on immune dysfunction following viral infections in experimental models has had a significant impact in [sic] our field. She is recognized as a thought leader in our professional

organization given her research and clinical expertise in acute respiratory infections in the ICU. I support her promotion to Professor with tenure without reservation.”

Reviewer F: “Dr. Deng has demonstrated excellence in the field of pulmonary medicine in scholarly activities, research, teaching, has played a critical role in providing services to the University, community and shown leadership skills at a variety of levels. Besides providing excellent patient care she is committed to making contributions to the field of respiratory medicine particularly to research related lung innate immune response investigating acute viral and bacterial infections...With her strong commitment she will continue to make significant contributions to the field of pulmonary medicine in years to come.”

Summary of Recommendation:

Dr. Deng has made substantive and meaningful contributions to the field in her research work. She is an exceptional physician-scientist, effective teacher, outstanding clinician, and superb leader who continues to excel in academic medicine. Her passion for mentorship and dedication to providing outstanding care to veterans is unmatched. She has established herself as a strong contributor to our research, clinical, and teaching missions. I am pleased to recommend Jane C. Deng, M.D., M.S. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.



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

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