

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF INTERNAL MEDICINE

Mariana J. Kaplan, 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.	1992	School of Medicine, Universidad Nacional Autonoma De Mexico, Ciudad Universitaria, Mexico
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Professional Record:

2008-present	Associate Professor of Internal Medicine, University of Michigan
2001-2008	Assistant Professor of Internal Medicine, University of Michigan
1998-2001	Lecturer, Department of Internal Medicine, University of Michigan

Summary of Evaluation:

Teaching: Dr. Kaplan's teaching reflects the breadth of her work as a physician-scientist. It ranges from supervision of undergraduate and graduate students in immunology in her laboratory to clinical teaching of medical students, residents and rheumatology fellows in clinical settings. She is also in demand nationally and internationally for distinguished lectureships that have given wide exposure to her creative scientific work. Dr. Kaplan's commitment to teaching is evidenced by the many trainees, fellows and Ph.D. students who she has mentored. Many of them have gone on to their own successful careers. It is clear from these educational activities and her role as associate director of the T32, that she is very focused on this key academic role.

Research: Dr. Kaplan's research focus is on the mechanisms by which premature vascular damage occurs in systemic autoimmune diseases. Dr. Kaplan has identified critical innate immune mechanisms that contribute to atherosclerosis that are specific to lupus or greatly exaggerated in lupus. This work has led to 66 peer-reviewed publications, many in very high quality journals. She has achieved a strong portfolio of research funding including NIH R01 grant support. Her research stature is recognized by editorship positions on distinguished journals and invitations to participate in study section reviews. She is viewed nationally and internationally as a leader and innovator in her areas of investigation.

Recent and Significant Publications:

Thacker S, Berthier C, Mattinzoli D, Rastaldi MP, Kretzler M, Kaplan MJ: The detrimental effects of interferon- α on vasculogenesis in lupus are mediated by repression of IL-1 pathways:

potential role in atherogenesis and renal vascular rarefaction. *Journal of Immunology* 185:4457-4469, 2010.

Denny MF, Yalavarthi S, Zhao W, Thacker S, Anderson M, Sandy A, McCune WJ, Kaplan MJ: A distinct subset of proinflammatory neutrophils isolated from patients with systemic lupus erythematosus induces vascular damage and synthesizes type I Interferons. *Journal of Immunology* 184:3284-3297, 2010.

Villanueva E, Yalavarthi S, Berthier C, Hodgins J, Khandpur R, Lin A, Rubin C, Zhao W, Olsen SH, Klinker M, Shealy D, Denny MF, Plumas J, Chaperot L, Kretzler M, Bruce AT, Kaplan MJ: Netting neutrophils induce endothelial damage, infiltrate tissues and expose immunostimulatory molecules in systemic lupus erythematosus. *Journal of Immunology* 187:538-552, 2011.

Somers EC, Zhao W, Lewis EE, Wang L, Wing JJ, Baskaram S, Kazerooni E, McCune WJ, Kaplan MJ: Type I interferons are associated with subclinical markers of cardiovascular disease in a cohort of systemic lupus erythematosus patients. *PLoS One* 7:e37000, 2012. doi:10.1371/journal.pone.0037000. PMC3351452.

Thacker S, Zhao W, Smith C, Luo W, Wang H, Vivekanandan-Giri A, Rabquer B, Koch AE, Pennathur S, Davidson A, Eitzman D, Kaplan MJ: Type I interferons modulate endothelial function, repair, thrombosis and plaque severity in murine models of lupus and atherosclerosis. *Arthritis & Rheumatism* 2012 May 1. doi: 10.1002/art.34504. [Epub ahead of print].

Service: Dr. Kaplan contributes significantly to the patient care activities in the Division of Rheumatology in both outpatient and inpatient settings, including responsibilities for supervision of trainees at all levels. Dr. Kaplan has also contributed her time to several other organizations in a highly effective manner. These include serving as a member of the American Association of Immunologists Membership Committee, a member of the American College of Rheumatology/Research and Education Foundation Scientific Advisory Council, a member of the Lupus Foundation of America Scientific Advisory Council, and a permanent member of the Atherosclerosis and Inflammation in Cardiovascular Systems Study Section (AICS).

External Reviewers:

Reviewer A: “There are many outstanding molecular and cell biologists who are studying atherosclerosis and plaque rupture, but to meld this process to a clinical disease requires a particularly talented, creative and dedicated investigator. Dr. Kaplan is all of these.”

Reviewer B: “She is the model of a translational researcher—carefully considering the nature of the diseases that rheumatologists treat, studying disease mechanisms in the laboratory, and then applying knowledge gained to develop better therapies for patients....Mariana Kaplan is an outstanding physician scientist and role model for others in our field. I would love to have her at our institution, and University of Michigan is fortunate to have her.”

Reviewer C: “Dr. Kaplan is a superstar in academic medicine and is certainly more than prepared for and deserving of promotion to this level....In every area, her work has been


characterized by its careful attention to detail, focus on clinically relevant questions, and widespread recognition of its importance.”

Reviewer D: “What is astonishing to me is the body of work and international recognition that Mariana has achieved in a relatively short period of time. She is recognized by everyone in the lupus field as an expert in the area of cardiovascular disease.”

Reviewer E: “She has clearly developed expertise in both vascular and neutrophil biology, especially in the autoimmune disease context, and she is nationally and internationally recognized for her contributions....Mariana is a special faculty member who embodies all of the qualities and commitment necessary for success in academic medicine. She brings a collegiality that is enviable and will continue to bring distinction to the program at Michigan.”

Summary of Recommendation:

Dr. Mariana Kaplan is a physician-scientist who is among a handful of the most distinguished academic rheumatologists of her generation nationally. She has demonstrated consistent excellence in all aspects of her work and at every professional level ranging from student to associate professor. She is already a distinguished member of our faculty and has outstanding potential for future significant scientific contributions that will impact clinical medicine profoundly. I am, therefore, pleased to recommend Mariana J. Kaplan, M.D. for promotion to professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2013