PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF INTERNAL MEDICINE

Sharlene M. Day, M.D., assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

M.D.

1995

New York University

B.S.

1991

Massachusetts Institute of Technology

Professional Record:

2005-present 2001-2005 Assistant Professor of Internal Medicine, University of Michigan

Clinical Lecturer/Research Fellow, Department of Internal

Medicine, University of Michigan

Summary of Evaluation:

Teaching: In her role as physician educator, Dr. Day teaches and mentors from the undergraduate level to junior faculty. She has served as a mentor for UROP students, the UROP summer fellowship program, and the Cardiovascular Center Summer Fellowship Program. She mentors third and fourth year medical students and residents on the inpatient or consulting cardiology services, on clinical rotations, and in research projects. Her residents are taught with a greater emphasis on clinical decision making and autonomous patient management. In the inpatient setting, she interacts with fellows on the consulting cardiology service; in the outpatient setting she is one of a select group of faculty to have a fellow assigned to her for their third year continuity clinic. She also serves in a mentoring role for junior faculty in developing their academic careers in the field of inherited cardiomyopathies and genetics. Her teaching evaluations for resident rotations in 2010-2011 were 4.67 out of an overall score of 5.0; for graduating residents in 2010-2011 they were 4.42 out of 5.0. The words "great," "superb" and "excellent" are often seen in her teaching evaluations.

Research: Dr. Day's primary goal for her early academic career has been to develop expertise in clinical and basic science areas that are mutually complementary and informative. She has developed a reputation in the field of genetic cardiomyopathies and has published in high impact journals such as *Nature*, *Journal of Clinical Investigation*, *Circulation Research*, *American Journal of Pathology* and *FASEB Journal*. She is currently collaborating with investigators at the Center for Arrhythmia Research, the Stem Cell Consortium, and in the Department of Pediatrics. As a group, they are looking at mechanisms of inherited cardiovascular diseases, particularly those that contribute to cellular arrhythmagenicity; Dr. Day's focus is on hypertrophic cardiomyopathy. She is the principal investigator on three active grants and site principal investigator on one additional grant. She has 29 peer-reviewed publications with 17 as first or senior author, and three

additional first or senior author papers submitted. She is also co-author on a book chapter and has over 45 abstracts.

Recent and Significant Publications:

Day SM*, Westfall MV*, Fomicheva K, La Cross N, Yasuda S, Metzger JM: Histidine button engineered into cardiac troponin I protects the heart from ischemia and heart failure. *Nature Medicine* 12:181-189, 2006. *Co-first authors.

Day SM, Coutu P, Wang W, Herron T, Turner I, Shillingford M, La Cross N, Converso KL, Piao L, Li J, Lopatin AN, Metzger JM: Cardiac-directed parvalbumin expression shows marked heart rate-dependence of delayed Ca²⁺ buffering action. *Physiological Genomics* 33:312-322, 2008.

Day SM: Exercise in hypertrophic cardiomyopathy. *Journal of Cardiovascular Translational Research* 2:407-414, 2009.

Predmore JL, Wang P, Davis FR, Bartolone S, Westfall MV, Pagani F, Dyke DB, Powell SR, Day SM: Ubiquitin proteasome dysfunction in human hypertrophic and dilated cardiomyopathies. *Circulation* 121:997-1004, 2010.

Day SM: Anxiety in patients with ICDs and arrhythmogenic right ventricular cardiomyopathy. Invited editorial. *Circulation: Cardiovascular Genetics* 5:2-4, 2012.

Service: Dr. Day holds a number of editorial and reviewer positions. She has been on the University of Michigan Cardiovascular Center McKay Grant Review Committee (since 2004) and the Biomedical Research Council Bridging Support Programs for Basic Science Research Grant (in 2010). She was a MICHR Pilot Grant Program Reviewer (in 2012). Nationally, she is on the Basic Cell-Proteins and Crystallography Peer Review Committee of the American Heart Association and the Sarnoff Cardiovascular Research Foundational Scientific Committee. In addition, she has been a peer reviewer for the American Journal of Cardiology; FASEB Journal; Circulation: Heart Failure; and Annals of Internal Medicine where she was acknowledged as a top 10% reviewer in 2009. Dr. Day has an extraordinary commitment to the delivery of high quality clinical care. She is a caring and compassionate doctor with both patients and their families and works tirelessly on their behalf, consistently receiving positive reviews. continually strives to improve the standard of care by working with teams of investigators on multicenter collaborative clinical and translational research projects. She is an important reason for the growth of the program and the approval of the Hypertrophic Cardiomyopathy Association. Her creation and development of the HCM program at the University is truly impressive in building from scratch a nationally recognized program that excels in clinical care through careful and innovative basic and clinical research.

External Reviewers:

<u>Reviewer A</u>: "She has developed a clinical data base that allows her to provide very sophisticated care to these patients and their families, and additionally this will also position her as one of very few centers that can participate in future genetically focused clinical trials.... Dr. Day is certainly among the very few cardiovascular investigators who is so well positioned."

Reviewer B: "Dr. Day is now recognized as a leader in the field of HCM. Because her work spans basic investigation as to how these dominant mutations elicit sarcomere dysfunction to the management of these complex phenotypes, she is in a very unique position...Dr. Day's trajectory in her basic and clinic programs will allow her to continue to make contributions that will help change the management and understanding of heart failure. Dr. Day is well positioned to remain a leader in this field."

Reviewer C: "...I do think Dr. Day offers a unique skill set in the field of hypertrophic cardiomyopathy. Her combination of molecular scientific inquiry, strong clinical breadth, and personability are highly valued. She truly bridges the gap from bench to bedside in a way that few others have achieved."

Reviewer D: "In moving forward Dr. Day had the good sense to move into a significant and poorly understood area of research involving the proteasome. Her ability to garner funding is proof enough of her ability to put together strong research programs on her own. Her publications in this area are emerging, and there is little doubt she will be a force in this important arena of research."

Reviewer E: "Sharlene's niche is unique and her work truly represents the definition of 'translational' medicine. While her contributions to basic work in our field (as a senior author) are just picking up steam, she is a true leader in the diagnosis and management of genetic cardiomyopathies. I cannot emphasize enough how impressive her rise within the field has been over such a short time."

Reviewer F: "...her work is important because it documents, at a rigorous molecular level, that the ubiquitin-proteasome system has relevance for human cardiac disease."

Summary of Recommendation:

Dr. Day is a recognized leader in the field of HCM. Her trajectory will allow her to continue to make contributions that will change the management and understanding of heart failure. She has an impressive list of scholarly and didactic accomplishments and has been heavily involved in the training of students, residents, and fellows. I am pleased to recommend Sharlene M. Day, M.D. for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

James Of Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine