

PROMOTION RECOMMENDATION  
UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF MOLECULAR AND INTEGRATIVE PHYSIOLOGY  
DEPARTMENT OF INTERNAL MEDICINE

Daniel E. Michele, Ph.D., assistant professor of molecular and integrative physiology, Department of Molecular and Integrative Physiology, and assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of molecular and integrative physiology, with tenure, Department of Molecular and Integrative Physiology, and associate professor of internal medicine, without tenure, Department of Internal Medicine, Medical School.

Academic Degrees:

2000	Ph.D.	University of Michigan
1995	B.S.	Calvin College, Grand Rapids, MI

Professional Record:

2010-present	Associate Director, Center for Integrative Genomics, University of Michigan
2004-present	Assistant Professor of Internal Medicine, University of Michigan
2004-present	Assistant Professor of Molecular and Integrative Physiology, University of Michigan
2000-2004	Postdoctoral Fellow, University of Iowa

Summary of Evaluation:

Teaching: Dr. Michele is a highly dedicated educator as reflected by his significant involvement in several educational activities. He has served or is serving as course director, instructor, and small group leader in several key graduate program and medical school courses. He has served or is serving as mentor for two post-doctoral fellows, four graduate students, and 17 undergraduate students including helping several of them obtain research fellowships. He has served or is serving on 12 doctoral thesis committees, 14 prelim exam committees, including several as chair. He created and obtained funding for, and presently serves as director of the highly successful University of Michigan Cardiovascular Center Summer Undergraduate Research Fellowship Program. This summer program provides 12 fellowships for undergraduates who join this program from all over the United States. It is anticipated that Dr. Michele will continue to play a critical role in teaching cardiovascular and muscle components of physiology and integrative biology courses, and in mentoring junior scientists within the medical school.

Research: Dr. Michele is recognized as an expert in the molecular mechanisms of inherited muscle diseases including inherited cardiomyopathies and muscular dystrophies. His laboratory is well recognized for research using biochemical approaches and isolated muscle cell preparations, in combination with genetic models in the mouse and gene transfer techniques, for understanding disease mechanisms at the molecular level and testing new therapeutic approaches.

Dr. Michele has an excellent publication record with over 36 peer reviewed publications, two book chapters and several exciting new papers submitted for publication. In recognition of his research accomplishments, he was selected as a biological scholar upon joining the University of Michigan and was awarded the Basil O'Connell Scholar Award from the March of Dimes. He has served as an ad hoc reviewer for the NIH, USMRMC and several private foundations. In addition, he was recently appointed to the editorial board of *FEBS Journal*. His research has been supported by NIH-NHLBI, the Muscular Dystrophy Association, March of Dimes and the American Heart Association, and his laboratory is currently supported by an R01 and an ARRA Administrative supplement.

Service: Dr. Michele is an active and highly valued faculty member in terms of service to his home department. He is also very active in service to the medical school and scientific community. Currently, he serves as associate director of the Center for Integrative Genomics (CIG) and is a member of the Cardiovascular Center (CVC) Basic Science Team Committee. In both capacities, he is helping create a new partnership between the CVC and CIG to expand and create new cardiovascular phenotyping services that will serve the medical school and the new North Campus Research Complex expansion. In his department, he has served on numerous committees including the Graduate Program Committee, the Space Committee, and the CIG Operating Committee. His dedication to promoting the graduate program in his department is reflected in his service to revise and coordinate the Davenport Fellowship as an annual research award event that he oversees, which is one of the major annual events in his home department. He is commonly called on by graduate students to serve on thesis and preliminary exam committees. For the university, he has also participated as a reviewer for the McKay Research Grant competition, the PIBS admission committee, and the Cell and Molecular Biology Graduate Program Committee. His recent selection to the editorial board of *FEBS Journal* and participation as an ad hoc reviewer for national funding agencies demonstrate his broad service to the research community.

#### Recent and Significant Publications:

Ramaswamy KS, Palmer ML, vanderMeulen JM, Renoux A, Kostrominova TY, Michele DE and Faulkner JA: Lateral transmission of force is impaired in skeletal muscles of dystrophic mice and very old rats. *Journal of Physiology*, in press.

Gumerson JD, Davis C, Faulkner JA and Michele DE. Soleus muscle in glycosylation-deficient muscular dystrophy is protected from contraction-induced injury. *Am J Physiol Cell Physiol* 299:C1430-1440, 2010.

Michele DE, Kabaeva Z, Davis SL, Weiss RM and Campbell KP: Dystroglycan matrix receptor function in cardiac myocytes is important in limiting activity induced myocardial damage. *Circulation Research* 105:984-993, 2009.

Kabaeva Z, Zhao M and Michele DE: Blebbistatin extends culture life of adult mouse cardiac myocytes and allows efficient and stable transgene expression. *Am J Physiol Heart Circ Physiol* 294:H1667-H1674, 2008.

Yasuda S, Townsend D, Michele DE, Favre EG, Day SM and Metzger JM. Dystrophic heart failure blocked by membrane sealant poloxamer. *Nature* 436:1025-1029, 2005.

External Review:

Reviewer A: "He is an outstanding [junior] scientist, whose promotion to Associate Professor I strongly support."

Reviewer B: "Based on his outstanding training and research establishment, I would rank Dr. Michele at the top 20% nationally among investigators at his stage of career development."

Reviewer C: "Dr. Michele is making excellent progress and has an outstanding trajectory. This is what one wishes to see in assistant professors making transition to associate professor."

Reviewer D: "At my own institution his scholarly achievements and academic contributions would support his promotion to Associate Professor with tenure. I strongly support his proposed promotion."

Reviewer E: "...Dr. Michele has established himself as a leader in the professional niche of how defects in structural components of striated muscle cells lead to disease. This concept is of emerging importance to our understanding of muscular dystrophy and cardiomyopathy. Dr. Michelle...has made some of the most significant contributions to this area of research."

Summary of Recommendation:

Dr. Michele is an excellent teacher, and is on the appropriate trajectory in terms of his scholarly productivity and ability to secure national research grant support. He is highly regarded within his home department as one of the top faculty contributors to teaching and scholarly department activities. He has become a nationally and internationally recognized investigator in the field of muscular dystrophies. We anticipate that he will continue to excel and grow his academic career at the university, and to serve as a superb investigator, teacher and role model. I am pleased to recommend Daniel E. Michele, Ph.D. for promotion to associate professor of molecular and integrative physiology, with tenure, in the Department of Molecular and Integrative Physiology, and associate professor of internal medicine, without tenure, in the Department of Internal Medicine, Medical School



James O. Woolliscroft, M.D.

Dean

*Lyle C. Roll Professor of Medicine*

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