

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF NEUROLOGY

Brian C. Callaghan, M.D., assistant professor of neurology, Department of Neurology, Medical School, is recommended for promotion to associate professor of neurology, with tenure, Department of Neurology, Medical School.

Academic Degrees:

M.S.	2011	University of Michigan, School of Public Health
M.D.	2005	University of Pennsylvania
B.S.	1999	University of Michigan

Professional Record:

2011-present	Assistant Professor of Neurology, University of Michigan
2009-2011	Clinical Lecturer, Department of Neurology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Callaghan has mentored and supervised research projects for two undergraduate students (five hours per year), 13 neurology residents (60 hours per year), two additional neuromuscular fellows (60 hours per year), two international residents (10 hours per year), and two graduate research assistants (60 hours per year). He teaches and staffs patients with M3 and M4 students at the Ann Arbor VA Neurology clinic (60 hours per year), residents at the Ann Arbor VA Neurology clinic, and the University of Michigan Neuromuscular clinic (180 hours per year), and neuromuscular fellows in the University of Michigan Neuromuscular clinic (90 hours per year). For two weeks each year, Dr. Callaghan teaches medical students during two weeks on the neurology inpatient/consult service. For medical students, he participates in the Student Interest Group in Neurology (SIGN) program by attending the dinner, demonstrating EMG, and discussing research opportunities. Furthermore, Dr. Callaghan moderates the M2 Neuroscience Active Learning student group sessions, where medical students learn to develop a differential diagnosis for multiple patient scenarios. In addition, for two years, he participated in the Med Family program, which helped students learn from other students. For neurology residents, he coordinated and developed the curriculum for the Clinical Neurology Conference from 2010-2015, which provides clinical lectures for neurology residents. Since then, he has coordinated the neuromuscular lectures for this same course. Dr. Callaghan was able to incorporate lectures pertinent to the yearly in-service examination, which resulted in improved scores for the residents. He was also able to change the curriculum so that a content expert chose lectures on a three year rotating basis so that residents were exposed to different lectures each year from the best faculty in a given area. He also supervises journal clubs each year and has demonstrated the neurologic examination during the Neurology Boot Camp week. He gives lectures at patient conferences annually to the residents, which involves presenting an interesting

case including examination findings. For neuromuscular fellows, Dr. Callaghan gives neuromuscular conference lectures each year, Boot Camp lectures, and serves on the Neuromuscular Fellowship Clinical Competency Committee. Dr. Callaghan has received one institutional and one national teaching award. In 2014-2015, he received the Status Pedagogicus Award. This award is presented annually to the best teacher as determined by the neurology residents at the University of Michigan. In 2016, Dr. Callaghan received the American Academy of Neurology AB Baker Teacher Recognition Award. This national teaching award is presented by the largest neurology professional society to reward teaching excellence within the field.

Research: Dr. Callaghan has two main research interests, the epidemiology of peripheral neuropathy and neurology health services research. He has 71 peer-reviewed publications including 31 first author and 10 last author publications. He has published reviews in top tiered journals (*JAMA*, *BMJ*, *Lancet Neurology*, *JAMA Neurology*, *Annals of Neurology*, *Cochrane*) and a case report in the *New England Journal of Medicine*. He has also published original articles in top tiered journals (*JAMA Internal Medicine*, *JAMA Neurology*, *Neurology*, *Annals of Neurology*, and *Diabetes Care*). He has received a VA Merit award, a NIH K23 award, a University of Michigan Diabetes Interdisciplinary Study Program grant, a NIH T32 grant, an American Diabetes Association Junior Faculty Award, and funding from the American Academy of Neurology. He also collaborates on a Novo Nordisk Foundation grant. He serves as a grant reviewer for the American Diabetes Association, and the co-section editor for the Innovations in Care Delivery website for the *Neurology Journal*. He has given grand rounds at the University of Pennsylvania, University of Colorado, University of Wisconsin, SUNY Downstate Medical Center, and the University of Michigan. He has given invited lectures at the annual meetings for the American Brain Foundation, American Diabetes Association, American Academy of Neurology, Philadelphia Neurologic Society, Peripheral Nerve Society, International Congress on Neuromuscular Diseases, and International Diabetic Neuropathy Consortium in Denmark. Dr. Callaghan is the Fovette E. Dush Early Career Professor of Neurology.

Recent and Significant Publications:

Callaghan BC, Little AA, Feldman EL, Hughes RA: Enhanced glucose control for preventing and treating diabetic neuropathy *Cochrane Database Syst. Rev* 6:CD007543, 2012. PM22696371.

Callaghan BC, Kerber KA, Lisabeth LL, Morgenstern LB, Longoria R, Rodgers A, Longwell P, Feldman EL: Role of neurologists and diagnostic tests on the management of distal symmetric polyneuropathy. *JAMA Neurol* 71:1143-1149, 2014. PM25048157.

Callaghan B, Kerber K, Langa KM, Banerjee M, Rodgers A, McCammon R, Burke J, Feldman E: Longitudinal patient-oriented outcomes in neuropathy: Importance of early detection and falls. *Neurology* 85:71-79, 2015. PM26019191.

Callaghan BC, Xia R, Reynolds E, Banerjee M, Rothberg AE, Burant CF, Villegas-Umana E, Pop-Busui R, Feldman EL: Association between metabolic syndrome components and polyneuropathy in an obese population. *JAMA Neurol* 73:1468-1476, 2016. PM27802497.

De Lott LB, Burke JF, Kerber KA, Skolarus LE, Callaghan BC: Medicare Part D payments for neurologist-prescribed drugs. *Neurology* 2016. PM27009256.

Service: Dr. Callaghan is actively involved in the American Academy of Neurology. He started on the Practice Improvement Subcommittee, which was involved in increasing dissemination and implementation of AAN guidelines and other projects. He transitioned to and still serves on the Guideline Development, Dissemination, and Implementation committee, which serves similar roles but is also involved in performing the systematic reviews for the AAN guidelines. He is currently serving on the Medical Economic and Management committee, which is involved in understanding the impact of payment reform on neurology practices. He served on the Health Services Research Work Group, which has transitioned to an AAN subcommittee. As part of this group, Dr. Callaghan has led health services research projects for the AAN. He has previously served on the Data Governance Subcommittee, which was involved in aiding the development of the AAN's registry for quality measures in neurology. He served on the AAN's Choosing Wisely panel and is now on the Drug Price task force. For the American Diabetes Association, Dr. Callaghan is the diabetic neuropathy chair for the scientific sessions meeting planning committee. He also serves as the co-chair for the health services research special interest group for the American Neurological Association. Dr. Callaghan is co-section editor of the Innovations in Care Delivery website for the *Neurology Journal*. At the University of Michigan, he serves on the Neuromuscular Fellowship Clinical Competency committee. He also has also served as a journal reviewer for more than 12 journals.

Professional Work: Dr. Callaghan's clinical responsibilities for the past year have included one half day per week of neurology clinic at the VA in Ann Arbor, one half day of EMG/NCS studies at the VA per month, one half day of neuromuscular clinic at UM per month, and one half day of EMG/NCS at UM per month. He also has two weeks of inpatient or consult responsibilities per year. Dr. Callaghan is the only neuromuscular expert at the Ann Arbor VA. As a result, he is involved in all complex neuromuscular cases and challenging electrodiagnostic studies. At the University of Michigan, he is the clinical peripheral neuropathy expert. Dr. Callaghan has extensive knowledge of the diagnostic testing that should be performed in patients with peripheral neuropathy, including the role of electrodiagnostic tests. Dr. Callaghan also directed the University of Michigan ALS clinic from 2011-2015. During his time, he revamped the multidisciplinary team, increased the research opportunities including observational and interventional studies, and initiated data collection through the electronic medical record. Since 2016, he has started and directed the first multidisciplinary ALS clinic at the Ann Arbor VA.

External Reviewers:

Reviewer A: "His scholarly output and his national and international networking are impressive for his stage of career....He clearly is a great university and department contributor, which only makes his promotion more straight forward....He is an exceptional faculty with an exciting future ahead of him."

Reviewer B: "His findings have shown the gap in guideline recommended tests such as tests for diabetes, B12, and monoclonal proteins....He has become a national expert in the evaluation and management of patients with neuropathy by providing new data to support which tests to order

and summarizing this information for all providers. This has large implications for policy in this common disease of older persons.”

Reviewer C: “Most recently, he has written about the high cost of Medicare Part D payments for neurologist-prescribed drugs. With escalating health care costs, Brian’s research is timely and critically important....In reviewing his curriculum vitae, I was struck by his extraordinary productivity. In my experience, it is highly unusual to find someone who has authored 72 peer-reviewed papers this early into a career.”

Reviewer D: “He also is recognized for his unique efforts to help define fiscally responsible and focused approaches to investigate peripheral nerve disease....Part of what makes him special is his insistence on excellence which can be seen at every step of his career including his medical school at the University of Michigan and in his Neurology training at the University of Michigan.”

Reviewer E: “...Dr. Callaghan is an extremely talented and accomplished clinician scientist whose work has had a fundamental impact on our field. He is also a highly engaged member of the academic community”

Summary of Recommendation:

Dr. Callaghan is a gifted teacher and clinician who has made valuable contributions to health services research, particularly in the assessment and implementation of high quality and cost effective treatments for neurological diseases. I am pleased to recommend Brian C. Callaghan, M.D. for promotion to associate professor of neurology, with tenure, Department of Neurology, Medical School.



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

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