

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF NEUROSURGERY

Hugh J.L. Garton, M.D., M.H.Sc., associate professor of neurosurgery, with tenure, Department of Neurosurgery, Medical School, is recommended for promotion to professor of neurosurgery, with tenure, Department of Neurosurgery, Medical School.

Academic Degrees:

M.H.Sc.	1999	University of British Columbia, College of Medicine, Vancouver, BC, Canada
M.D.	1991	Northwestern University Medical School, Chicago, IL
B.S.	1989	Northwestern University, Evanston, IL

Professional Record:

2008 - present	Associate Professor (with tenure), Department of Neurosurgery, University of Michigan, Ann Arbor, MI
2002-2008	Assistant Professor, Department of Neurosurgery, University of Michigan, Ann Arbor, MI
1999-2002	Lecturer, Department of Surgery, Section of Neurosurgery, University of Michigan, Ann Arbor, MI

Summary of Evaluation:

Teaching: Dr. Garton is a prolific and dedicated teacher and mentor. He is a clinically active surgeon who provides clinical teaching, research mentorship, and didactic teaching. Didactically, he has been a highly engaged lecturer for UM medical students, having given neurology clerkship lectures to third-year medical students, neuroscience core curriculum to second-year medical students (2008-2016), and has participated in the Resident Teaching Conference as a lecturer for nine years. He also gives two to three Neurosurgery Grand Rounds annually and has presented at multiple teaching conferences and interest groups. Nationally, he was a pediatric instructor for the American Association of Neurological Surgeons Board Review Course and contributed to the development of the Self-Assessment in Neurological Surgery questions that are now part of the American Board of Neurological Surgeons annual certification process. He performs instruction in the research lab through the direct mentoring of residents, post-doctoral fellows, medical students, graduate students, and clinical staff. Teaching evaluations are very good to excellent and speak to his excellence as a clinician and educator. Residents commented that “It was an honor to work with him” and described him as an “awesome mentor,” “one of the best faculty members” and “deeply committed.” In recognition of his teaching prowess, he received the Julian T. Hoff Teaching Award from the Department of Neurosurgery (2011).

Research: Dr. Garton’s research interests center on clinical epidemiology, outcomes, and trials in Neurosurgery. He has established three neurosurgical components that have led to dozens of University of Michigan discoveries, grants, and publications: (1) establishing the safe expansion of clinical and research elements of DIPG biopsy; (2) expanding the use of liquid biopsy in pediatric brain tumor patients and (3) establishing the use of “needle wash” biopsy procedures.” He was an innovator in developing these techniques which are now widely accepted in pediatric centers throughout the country. Currently, he is a co-investigator on one National Institutes of Health (NIH) R01 grant. Since 2008, he has served as a co-investigator on several NIH and industry grants. He is a consummate team

scientist, who selflessly contributes to the success of others. He has authored 125 peer-reviewed manuscripts in top tier journals such as *Neurosurgery*, *Spine*, and the *Journal of Neurosurgery*. He has been invited on 36 occasions to extramurally present his work on concussion and anticoagulation in brain injury, nationally and internationally including in Jordan.

Recent and Significant Publications:

Holste KG, Vernamonti J, Bah MG, Muraszko KM, Gadepalli SK, Maher CO, Garton HJL, “Ventriculoatrial and ventriculoperitoneal shunt malfunction and infection in infants with necrotizing enterocolitis,” *J Neurosurg Pediatr* 2023 Aug 4:1-7 doi: 10.3171/2023.6.PEDS23145, PMID 37542448

Ye F, Hua Y, Keep RF, Xi G, Garton HJ L, “CD47 blocking antibody accelerates hematoma clearance and alleviates hydrocephalus after experimental intraventricular hemorrhage,” *Neurobiol Dis*. 155: 105384, 07/2021. PMID: 33945877

Strahle J, Selzer BJ, Geh N, Srinivasan D, Strahle M, Martinez-Sosa M, Muraszko KM, Garton HJ L, Maher CO, “Sports participation with arachnoid cysts,” *J Neurosurg Pediatr*. 17(4): 410-417, 04/2016. PMID: 26636254

Strahle J, Muraszko KM, Kapurch J, Bapuraj JR, Garton HJ, Maher CO, “Natural history of Chiari malformation Type I following decision for conservative treatment,” *J Neurosurg Pediatr*. 2011 Aug;8(2):214-21. PMID: 21806365

Al-Holou WN, Maher CO, Muraszko KM, Garton HJ L, “The natural history of pineal cysts in children and young adults,” *J Neurosurg Pediatr*.5(2): 162-166, 02/2010. PMID: 20121364

Service: Dr. Garton has an outstanding service record. He is a highly respected pediatric neurosurgeon, and his efforts in this realm have had a major impact on the University of Michigan’s Pediatric Neurosurgery program. Institutionally, he is the head of the Division of Pediatric Neurosurgery, where he has expanded the program, which now has a strong national reputation, climbing 19 positions to a #23 ranking in U.S. News & World Reports. His national and international reputation is based on his innovative surgical techniques as well as his basic science work which led to his development of new techniques for gaining surgical access to brain areas associated with significant surgical risk. He is an exceptional contributor to the clinical mission and a dedicated physician to his field and patients. Over the last 18+ months, he has been the sole pediatric neurosurgeon providing inpatient surgical care where he has shouldered the responsibility of performing over 60% of all pediatric neurosurgical procedures performed at the University of Michigan. He currently serves on numerous committees for the department and institution, including as the lead for the Surgical Site Infection, OR Process Improvement and Patient Safety, and Neurosurgery Patient Care (Morbidity/Mortality) committees. He also serves as the director of the Surgical Quality and Safety Committee at Mott Children’s and Women’s Hospital. Nationally, he served on four committees, currently participating as the medical director for ThinkFirst National Injury Prevention Board of Directors and as the on-site physician lead for the National Surgical Quality Improvement Program (NSQIP) for the American College of Surgeons. He was the associate editor for the Congress of Neurological Surgeons SANS Maintenance of Certification Examination (2006-2010). Dr. Garton served as an ad hoc grant reviewer for the NIH (2009) and MICHR (2007-2010). Notably, Dr. Garton has volunteered his time and surgical skills to provide pediatric neurosurgical care for Project Shunt (Guatemala) and the Syrian American Medical Association (Jordan). In recognition of his clinical achievements, he received the National Medical Director of the Year from ThinkFirst (2018) and Outstanding Clinician Award from UMHS (2013) and was inducted into the League of Clinical Excellence in 2015.

External Reviewers:

Reviewer A: “From an educational and service point of view, Dr. Garton is quite impressive. He has delivered hundreds of lectures throughout the country and on his multiple fields of expertise. He is a nationally recognized expert in pediatric neurotrauma, hydrocephalus, pediatric pituitary disorders, pediatric spinal instability and the surgical management of epilepsy and spasticity. He has published 85 peer-reviewed papers and has authored or co-authored 17 textbook chapters.”

Reviewer B: “Dr. Garton’s work is much superior, as compared to other peer groups working on the same field with the same research interests. He has had major contributions to his discipline. He has been on many professional committees.”

Reviewer C: “He has also been instrumental in multi-institutional collaboration especially for Chiari malformations and hydrocephalus. He has also been active on 7 grants and [is] currently involved with an NIH \$3.6M grant looking at ‘sleep disordered breathing in infants with myelomeningocele.’”

Reviewer D: “His research focus is in epidemiology, patient outcomes, and clinical trials in neurosurgery. My overall impression of Dr. Garton’s work is that he is an extremely meticulous and critical thinker, in addition to being a tireless worker, with each of his published manuscripts resulting from deliberate and intentional scholarship. His national reputation amongst our colleagues reflects this substantial dedication to the highest quality research.”

Reviewer E: “I would estimate Dr Garton’s standing in relation to others in his peer group to be excellent. I know of no issues with his character or concerns of the relevance or accuracy of his work. I believe that Dr Garton’s service contributes substantially to our discipline, particularly in his academic productivity but also his research in patients with spina bifida and intraventricular hemorrhage of prematurity.”

Summary of Recommendations:

Dr. Garton is recognized as one of the foremost authorities in pediatric neurosurgery for traumatic brain injury (TBI), shunt failure, and intraventricular hemorrhage of prematurity. He is a dedicated and talented surgeon and a highly regarded and sought after educator. I am pleased to recommend Hugh J.L. Garton, M.D., M.H.Sc. for promotion to professor of neurosurgery, with tenure, Department of Neurosurgery, Medical School.



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

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