

PROMOTION RECOMMENDATION  
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL  
DEPARTMENT OF NEUROSURGERY

Hugh J.L. Garton, M.D., Assistant Professor of Neurosurgery, Department of Neurosurgery, Medical School, is recommended for promotion to Associate Professor of Neurosurgery, with tenure, Department of Neurosurgery, Medical School.

Academic Degrees:

M.HSc.	1999	University of British Columbia
M.D.	1991	Northwestern University

Professional Record:

2002-Present	Assistant Professor of Neurosurgery, University of Michigan
1999-2002	Lecturer, Department of Surgery, Section of Neurosurgery, University of Michigan

Summary of Evaluation:

Teaching: Dr. Garton teaches M1 through M4 medical students, and provides Neurosurgery residents lectures throughout their seven year residency program. His teaching includes lectures, bedside teaching on rounds, intraoperative teaching, and interactive group format courses in basic and clinical neurosciences. He regularly lectures outside the Department to individuals within the Departments of Physical Medicine and Rehabilitation, Pediatrics, Trauma, and Anesthesiology. One of the most impressive aspects of Dr. Garton is that he was concerned he was initially evaluated only as a good to very good lecturer. He regularly reviewed all of his comments by medical students and residents and worked diligently to improve them. He took classes to improve his lecture style. One can see an improvement in his grades as an educator, and this is in no small part due to his own passion for teaching. He now receives outstanding evaluations from medical students, residents, and the greater neurosurgical community.

Dr. Garton is viewed as the individual who will most likely give of himself to residents to improve their understanding and operative skills. He spends extraordinary amounts of time with the residents in the operating room, working to see that their operative skills are adequate. He is viewed as someone who knows a considerable amount around a wide variety of areas and is often called upon by the residents in the most complicated of cases. Graduated residents call him regularly to ask him about complex pediatric cases or how to develop a clinical research program.

Dr. Garton has provided outstanding lectures to a wide variety of groups, not only here at the University but also outside the institution. Teaching regularly at the American Association of Neurological Surgeons sponsored course to prepare candidates for the oral boards in neurological surgery is something he has done for the last several years. This course is by invitation only and granted to those individuals who are considered to be not only leaders in the field of neurosurgery, but also excellent teachers. In addition, he has provided courses at the

Congress of Neurological Surgeons as well as the American Association of Neurological Surgeons to help physicians design studies with respect to outcomes and natural history of neurosurgical disease processes. These courses make use of his rare talent as an individual with expertise in outcomes studies and clinical epidemiology.

As our Trauma liaison, he spends a significant amount of time educating other services about head injury and cervical spinal cord injury and has actually been able to parlay this into a series of clinical research programs. Working on the CIREN program, he has regularly contributed to teaching engineers and auto design firms about head and spine injury.

Research: Dr. Garton is an active investigator with respect to outcomes studies at Michigan. He directs the Clinical Research Unit for Neurosurgery. Many of his studies are multicenter in which he has been the primary leader. Several of his papers have been key in helping understand clinical analysis in pediatric neurosurgery.

Analyzing hydrocephalus and particularly shunt failure has been a recurrent theme throughout Dr. Garton's research activity. His first clinical paper regarding the cost savings of third ventriculostomy is highly quoted. In addition, he has contributed substantially to our understanding of the assessment that is necessary for a true understanding of shunt failure by the clinician in the emergency room setting. He is presently involved in a multicenter complex trial examining tethered cord syndrome, a common pediatric problem but for which there are insufficient, clear criteria as to the correct selection of operative candidates. He has spent several years in this undertaking working with a variety of institutions to develop criteria to analyze not only neurological outcome, but more particularly urodynamic outcome in such children. His work has been presented at national meetings of the neurosurgery community as well as international meetings

Dr. Garton's work in SANS (Self Assessment in Neurological Surgery) cannot be underestimated and is important scholarly work. He creates, analyzes, and reviews questions in pediatric neurosurgery, working to create evidence based questions, which are used by the American Board of Neurological Surgery in maintaining certification of all neurosurgeons. He has taken external courses through the NBME (National Board of Medical Examiners), the Congress of Neurological Surgeons, and the American Board of Neurological Surgery to make certain questions meet criteria for appropriate testing. This activity is time consuming and yet crucial in maintaining the standards of neurosurgical practice in the United States.

#### Recent and Significant Publications:

Kestle, JR, Garton HJL, Whitehead WE, Drake, JM, Kulkuarni AV, Cochrane DD, Musinxki C, Walker ML: Management of shunt infections a multicenter pilot study. *J Neurosurgery (Pediatrics)* 105 (3 Supple): 177-81, 2006.

Steinbok P, Garton HJL, Gupta N: The Occult tethered cord syndrome: A survey of practice patterns. *J Neurosurgery (Pediatrics)*, 104 (5 Suppl):309-13, 2006.

Park P, Garton HJL, Kocan MJ, Thompson BG: Risk of infection with prolonged ventricular catheterization. *Neurosurgery* 55: 594-601, 2004.

Park P, Fewel ME, Garton HJL, Thomson BG, Hoff JT: Recombinant activated factor VII for the rapid correction of coagulopathy in non-hemophilic neurosurgical patients. *Neurosurgery* 53:34-39, 2003.

Garton HJL, Kestle JRW, Cochrane DD, Steinbok, P: A cost effectiveness analysis of endoscopic third ventriculostomy. *Neurosurgery* 51: 69-78, 2002.

Service: Dr. Garton is an active member in organized neurosurgery being a member of both the Congress of Neurological Surgeons (CNS) and the American Association of Neurological Surgeons (AANS), as well as a member of the Joint Section of Pediatric Neurosurgery. He has served as an abstract reviewer as well as a course director for both the CNS and the AANS. He is the Pediatric Section Editor for the Self Assessment in Neurological Surgery maintenance of certification exam that is sponsored by the CNS, but which is being used by the American Board of Neurological Surgeons as well as pediatric neurosurgery for maintenance of certification. He has been a member of the Faculty Academic Senate here at the University of Michigan and has been a member of the Children and Women's Hospital Operating Room Committee, the Children and Women's Pediatric Intensive Care Committee, as well as the important role of Neurosurgery liaison to the Trauma Quality of Care Committee. Most recently he has served on the Mott OR Lean Thinking Project examining OR patient flow. Within the Department of Neurosurgery, he regularly reviews resident applications, is the Departmental Compliance Officer, and is the departmental liaison with respect to trauma. He is the leader and sponsoring physician of the Think First Outreach Program for prevention of head and spinal cord injury. In addition, he is the Image Guided Surgery Program Co-Director working with a variety of departments, specifically ENT, Orthopaedics, Oral Surgery, and Neurosurgery in organizing, maintaining, and updating image guided surgery here at the University of Michigan. He is an ad hoc reviewer for the *Journal of Neuro Ophthalmology* as well as the *Journal of Neurosurgery*.

Professional Work: Dr. Garton has been one of two pediatric neurosurgeons for all but one year of his tenure here at the University of Michigan. His professional work involves the surgical management of patients with pediatric neurosurgical problems. He focuses his work on several areas including pediatric epilepsy, hydrocephalus, endoscopic techniques in neurosurgery, and patients with cerebral palsy and spasticity. His ability to collaborate with a variety of specialists from other disciplines has enabled him to allow each of these programs to flourish. Specifically, he has been one of the prime driving forces behind the development of a complete program for complex treatment of spasticity in children, making use of all modern technology available to us. He has raised the level of endoscopic treatment in the pediatric population to a new level, and is viewed as a master endoscopic surgeon.

External Review:

Reviewer A: "He has proven himself to be a leading authority in the field of hydrocephalus based on his seminal publications about ventricular shunt infection and endoscopic third ventriculostomy."

Reviewer B: "He is often sought to run colloquial and direct seminars at national meetings because of his level-headed and even-handed approach to scientific controversies....Dr.

Garton is considered an excellent neurosurgeon whose thoughtful analysis and clinical judgment is well respected both in his region and nationally.”

Reviewer C: “Dr. Garton...is the leader in the field of outcomes research among his generation of pediatric neurosurgeons.”

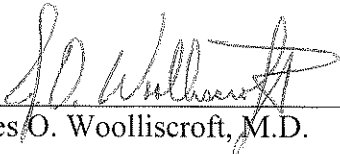
Reviewer D: “Overall, Dr. Garton has demonstrated a clear commitment to academic pediatric neurosurgery, has distinguished himself as a practitioner of clinical and outcomes research in that field and is clearly an important contributing member of the faculty of the University of Michigan Medical School and the Department of Neurosurgery.”

Reviewer E: “Dr. Garton is among a very small set of people in our field who have pursued formal training in clinical epidemiology. There are perhaps 300 practicing pediatric neurosurgeons in North America, and there are only 3 other individuals with comparable training at the master’s degree level known to me....They are the guardians of knowledge, the arbiters of how we know what we think we know.”

Reviewer F: “...he is an excellent lecturer and his presentations have always been very well received at our national meetings where he has presented a number of papers and participated in a number of seminars and conferences as an invited speaker....He is a wonderful representative of Neurosurgery at the University of Michigan whenever he participates in one of the national events, and I think his promotion is richly deserved.”

Summary of Recommendation:

Dr. Garton is an outstanding clinician, a compassionate physician, and a true innovator in neurosurgery. He provides outstanding service to a large number of patients, educates residents and neurosurgeons at the highest possible level, and uses his expertise in clinical outcomes studies to provide lasting and important information valuable to the neurosurgical community. His scholarship focuses on a complex area in neurosurgery regarding outcomes in pediatric neurosurgery. He is clearly respected as a leader in pediatric neurosurgical circles for this expertise. I am pleased, therefore, to recommend Dr. Hugh Garton for promotion to Associate Professor, with tenure, in the Department of Neurosurgery.



James O. Woolliscroft, M.D.

Dean

*Lyle C. Roll Professor of Medicine*

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