

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF SURGERY

Approved by the  
Regents  
May 21, 2015

Mark R. Hemmila, M.D., associate professor of surgery, with tenure, Department of Surgery, Medical School, is recommended for promotion to professor of surgery, with tenure, Department of Surgery, Medical School.

Academic Degrees:

M.D.	1994	University of Michigan
M.S.	1989	Columbia University
B.S.	1985	University of Rochester, Rochester, New York

Professional Record:

2010-present	Associate Professor of Surgery, University of Michigan
2009-2010	Clinical Associate Professor of Surgery, University of Michigan
2002-2009	Clinical Assistant Professor of Surgery, University of Michigan
2001-2002	Lecturer, Department of Surgery, University of Michigan

Summary of Evaluation:

Teaching: Dr. Hemmila is an exceptional teacher. His teaching audience includes undergraduates, medical students, residents, fellows, nursing staff, and peers. He instructs surgery and emergency department (ED) residents and mentors surgical critical care fellows in all aspects of surgical care including ED consultation, clinic, operating room, ICU, and inpatient rounds. He served as the M3/M4 clerkship liaison for trauma burn service providing initial orientation towards patient care and weekly lectures on topics such as trauma, burn care, and fluid and electrolyte management. Dr. Hemmila is an examiner for the M3 clerkship oral exams and trauma burn review session. He is actively involved in a wide variety of teaching conferences for general surgery and trauma burn services, resident mock oral examinations, morbidity and mortality conference, and resident application interviews. He is a mentor to the research fellows in the trauma burn research lab. He delivers CME lectures to the emergency department and trauma burn ICU nursing staff, and is an instructor at the advanced trauma life support and extracorporeal life support specialist training courses. Medical students and residents consider Dr. Hemmila an excellent physician, educator and role model, and have given him superior scores on evaluations. Their comments are filled with praise for his teaching style that includes clear and precise instructions, informative lectures, and commitment to the educational experience. Dr. Hemmila established the trauma resuscitation guidelines for utilization in education for all providers who participate in the initial trauma care of the patient in the University of Michigan Emergency Department. He is the Director of the Michigan Trauma Quality Improvement Program, a collaborative to improve quality of trauma care, risk-adjusted outcomes, best practices, and on-going education. Nationally, Dr. Hemmila provides GME

lectures to his peers at annual meetings for the American College of Surgeons, Michigan Committee on Trauma, and Michigan Surgical Quality Collaborative.

Research: Dr. Hemmila is a highly productive researcher and nationally recognized as a “thought leader” for his contributions in his discipline. His research interests are in surgical outcomes, topical inhibition of burn wound inflammation and progression using nanotechnology, basic science investigations into the mechanisms of burn-induced cardiac dysfunction, and clinical and basic science research into the pathophysiology and treatment of bacterial pneumonia. Dr. Hemmila’s research has led to over 78 peer-reviewed publications, 11 book chapters and two patents. His CV attests to nearly \$5 million in grants funded by the NIH and other national foundations. Currently, Dr. Hemmila is the principal investigator for outcomes research with the “Michigan Trauma Quality Improvement Program” which is funded by the Blue Cross Blue Shield of Michigan Foundation. He is a principal investigator on a grant from the Michigan Corporate Relations Network–Small Company Innovation Program. He is a co-investigator on a Department of Defense–Defense Medical Research and Development Program grant with Dr. James Baker as the principal investigator. Recognition of his expertise is noted by his numerous high quality national presentations for professional organizations. Dr. Hemmila is an *ad hoc* reviewer for several prestigious journals including international presence with the *Canadian Medical Association Journal* and *International Journal of Surgery*. He is a study section reviewer for the National Institutes of Health – NIGMS Special Emphasis Panel/Scientific Review Group.

#### Recent and Significant Publications:

Hemmila MR, Birkmeyer NJ, Arbabi S, Osborne NH, Wahl WL, Dimick JB: Introduction to propensity scores: a case study on the comparative effectiveness of laparoscopic vs. open appendectomy. *Archives of Surgery* 145:939-945, 2010.

Hemmila MR, Mattar A, Arbabi S, Hamouda T, Taddonio MA, Ward PA, Wang SC, Baker JR Jr. Topical nanoemulsion therapy reduces bacterial wound infection and inflammation following burn injury. *Surgery* 148:499-509, 2010.

Hemmila MR, Nathens AB, Shafi S, Calland JF, Clark DE, Cryer HG, Goble S, Hoeft CJ, Meredith JW, Neal ML, Pasquale MD, Pomphrey MD, Fildes JJ. The trauma quality improvement program: pilot study and initial demonstration of feasibility. *Journal of Trauma and Acute Care Surgery* 68:253-262, 2010.

Calland JF, Nathens AB, Young JS, Neal ML, Goble S, Fildes JJ, Hemmila MR. The effect of exclusion criteria on risk-adjusted performance in the American College of Surgeons Trauma Quality Improvement Program: DOA or DIE? *Journal of Trauma and Acute Care Surgery* 73:1086-1092, 2012.

Dolgachev VA, Yu B, Sun L, Shanley TP, Raghavendran K, Hemmila MR. IL-10 overexpression alters macrophage phenotype in the setting of Gram-negative pneumonia following lung contusion. *Shock* 41:301-310, 2014.

Service: Dr. Hemmila's dedication to patient care and service in the medical arena is long standing, serving on numerous committees throughout his career. Current activity includes chair of the TBICU Quality Assurance Committee and several memberships on institutional committees such as the Medical Liability Review Committee and Infection Control Committee. Dr. Hemmila is the director of the Michigan Trauma Quality Improvement Program and serves on multiple regional quality improvement committees. He is pursued for his expertise in his discipline and currently provides national committee service to these organizations: Society of University Surgeons, American College of Surgeons, Frederick A. Collier Surgical Society, Trauma Quality Improvement Program, and National Trauma Data Standard. Dr. Hemmila is an attending surgeon in the Acute Care Surgery Division which includes trauma, burns and surgical critical care. He was a leader in restructuring the acute care service, writing and implementing a plan that increased operative cases for trainees and decrease hospital length of stay for patients. He demonstrates compassion to patients and their family members. He is a meticulous surgeon in the operating room and is requested by his peers to manage complex general surgery cases. Administrative appointments include director, Acute Care Surgery-2 Service, director, Michigan Trauma Quality Improvement Program and director, Trauma and Burn Research Laboratory.

External Reviewers:

Reviewer A: "Perhaps his greatest contribution to the trauma community has been his work in developing the TQIP program. This program, which has been supported by the American College of surgeons Committee on Trauma, is critical to the future of quality improvement and benchmarking among trauma centers. This work has led to several important publications and has achieved considerable national recognition."

Reviewer B: "He is a nationally renowned and well respected expert in the area of Acute Care Surgery and in Particular Trauma Data Management and Performance Improvement Initiatives. His work and publications in this arena are ground breaking and at the forefront of this discipline."

Reviewer C: "The regional and national efforts that he has pioneered and led in Trauma quality improvement initiatives are remarkable, and have resulted in significant improvements in trauma care nationally. He is a passionate leader in collaborative quality improvement efforts in trauma."

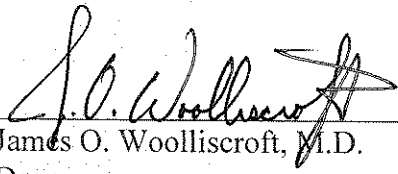
Reviewer D: "Dr. Hemmila has a strong research interest in quality improvement and outcomes, for which he is well known at a national level....He clearly demonstrates ongoing productive research, publishing over ten papers annually since his promotion to Associate Professor."

Reviewer E: "...Dr. Hemmila's career to date has allowed him to be recognized as a national leader in the trauma quality improvement project. As a laboratory researcher, his expertise in the use of nanotechnology to improve therapy for burn wounds has again allowed him to be identified as an international leader in burn surgery. His accomplishments to date allow him to be identified as a clinician scientist. In short, Dr. Hemmila is a national leader in academic trauma and burn surgery."

Reviewer F: "Dr. Hemmila has been an innovator and really a game changer in his field. His pursuit of outcomes research and specifically the Michigan Quality Improvement Program are unique and of the highest quality. The value of these contributions is validated by his multiple grants."

Summary of Recommendation:

Dr. Hemmila is nationally and internationally recognized by his peers as an excellent surgeon and educator, and as a highly respected leader for his expertise with surgical outcomes and trauma burn research. I am pleased, therefore, to recommend Mark R. Hemmila, M.D., for promotion to professor of surgery, with tenure, Department of Surgery, Medical School.



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James O. Woolliscroft, M.D.

Dean

*Lyle C. Roll Professor of Medicine*

May 2015