

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF SURGERY

Krishnan Raghavendran, M.D., associate professor of surgery, without tenure, Department of Surgery, Medical School, is recommended for the granting of tenure to be held with his title of associate professor of surgery, Department of Surgery, Medical School.

Academic Degrees:

M.D.	1985	Jawaharlal Institute of Post Graduate Medical Education, Pondicherry, India
B.S.	1980	Delhi University, India

Professional Record:

2008-present	Associate Professor, without tenure, Department of Surgery, University of Michigan
2007-2008	Associate Professor of Surgery, State University of New York at Buffalo
2003-2008	Assistant Professor of Anesthesiology, State University of New York (SUNY) at Buffalo
2000-2007	Assistant Professor of Surgery, State University of New York at Buffalo
1996-1999	Clinical Assistant Professor of Surgery, University of Texas Health Sciences Center

Summary of Evaluation:

Teaching: Teaching is a core element of Dr. Raghavendran's career. He has been recognized for his teaching excellence by being awarded the Medical Student Teaching Award and C.P. Chandra Award for Outstanding Teaching in both 2002 and 2003 in the Department of Surgery at the State University of New York. Dr. Raghavendran conducts daily teaching rounds for third- and fourth-year medical students, surgery and emergency medicine residents and surgical critical care fellows in the Trauma Burn Intensive Care Unit and Surgery Intensive Care Unit. He has provided yearly didactic lectures for second-year –Examination of Acute Abdomen, quarterly lectures for third-year –Examination of the Breast and Breast Diseases and is an ATLS instructor for residents in surgery and emergency medicine. Dr. Raghavendran is currently an examiner for third-year oral examinations and a mock oral examiner for general surgery residents. He provides numerous lectures throughout the year at general surgery, trauma burn service and surgical critical care teaching conferences and volunteers to teach in the critical care summer school program. Dr. Raghavendran provides supervision, teaching and mentoring to many individuals, from pre-medical through post doctoral students.

Research: Dr. Raghavendran is the principal investigator on several grants, including: an R01 grant titled "Mechanisms of MCP-1 in lung contusion with and without gastric aspiration" funded by NIH/NHLB1, and a K08 grant titled "Lung contusion--Mechanisms and interaction

with Aspiration” funded by NIH/NIGMS to study the cellular and inflammatory mechanisms in the pathogenesis of lung contusion and the interaction of lung contusion with gastric aspiration and the mechanisms that lead to the development of Acute Lung Injury/Acute Respiratory Distress Syndrome. Additionally, Dr. Raghavendran is the principal investigator on a grant from MICHR to study surfactant replacement in lung injury and he is co-investigator on an R01 titled “Pathogenesis of aspiration pneumonitis.” He received the Buswell Fellowship at SUNY-Buffalo from 2004-2007 for similar research investigations. He has 30 peer reviewed publications, four book chapters and 36 abstract presentations.

Recent and Significant Publications:

Scannapieco FA, Yu J, Raghavendran K, Vacanti A, Owens SI, Wood KM, Mylotte JM: Effect of oral topical chlorhexidine gluconate rinse, once or twice a day, on potential respiratory pathogen oral colonization in mechanically ventilated-intensive care patients. *Critical Care* 15;13R117, 2009. Epub PMID:19765321

Raghavendran K, Davidson BA, Helinski JD, Wang Z, Chess PR, Knight PR, Notter RH: Surfactant dysfunction in lung contusion with and without gastric aspiration correlates with severity of lung injury in rats. *Shock*, Epub date Feb 21, 2008: PMID18323743, 30(5):508-517, 2008.

Raghavendran K, Davidson BA, Mullan BA, Woytash J, Manderscheid PA, Hutson AD, Notter RH and Knight PR: Acid and particulate induced aspiration injury in mice-Role of MCP-1. *AJP-Lung, cell and molecular physiology* 289:L134-L143, 2005.

Raghavendran K, Davidson BA, Helsinki JD, Marschke CJ, Manderscheid PA, Notter RH, Knight PA: A rat model for isolated bilateral lung contusion from blunt chest trauma. *Anesthesia and Analgesia* 101:1482-1489, 2005.

Raghavendran K, Davidson BA, Woytash J, Helinski JD, Marschke CJ, Manderscheid PA, Notter RH, Knight PR: Evolution of Isolated bilateral lung contusion from blunt chest trauma: Cellular and Cytokine responses. *Shock* 24:132-138, 2005.

Service: Service to the community and profession are important to Dr. Raghavendran. Prior to joining the Michigan faculty, he served on the Pharmacy & Therapeutics Committee, Antibiotic Subcommittee and Ethics Committee at Erie County Medical Center. In the Department of Surgery at the State University of New York, Buffalo, Dr. Raghavendran was a member of the Education Committee, Research Committee and Promotions and Tenure Committee. At Michigan, Dr. Raghavendran is a member of the Trauma Quality Control Committee, ad-hoc Trauma QCC for VTE Prophylaxis in Trauma, SICU QA Committee and Critical Care Steering Committee. He maintains memberships and committee appointments with numerous professional organizations and currently holds editorial positions with nine peer-reviewed publications. He is also engaged in international activities involved with improving trauma systems in India.

External Review:

Reviewer A: “Dr. Raghavendran has developed a clear, independent research focus elucidating the cellular and molecular mechanisms associated with acute lung injury and pulmonary contusion. His work has made important contributions to the field and is widely recognized within the trauma surgery community.”

Reviewer B: “Dr. Raghavendran is not only an experienced surgical critical care/trauma surgeon, but he is also a prominent investigator whose fields of expertise include pathogenesis of acute lung injury and diagnostic and therapeutic strategies in ventilator-associated pneumonia...Dr. Raghavendran is recognized as an innovative and productive biomedical investigator and a respected national spokesperson for biomedical sciences.”

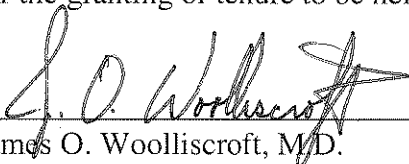
Reviewer C: “Considering Dr. Raghavendran’s academic trajectory, the positive impact that his research has had in the field of trauma and critical care, his regional, national and international stature, his accomplishments as an educator, and his active participation in surgical organizations, I have no doubt that promotion to the rank of Associate Professor with tenure is absolutely well-deserved. If Dr. Raghavendran was a member of my academic department, he would have already achieved tenure without any doubt.”

Reviewer D: “Suffice it to say that Dr. Raghavendran has established himself as a nationally recognized figure in the pathophysiology of traumatic and aspiration-induced lung injury. He is involved and participates in all the major academic trauma societies...”

Reviewer E: “The two issues which Dr. Raghavendran has researched made a profound impression on me and many of the trauma and critical care specialists. First, his work on the variability of low-molecular weight heparins in critically ill patients has debated the standard dogma of one-dose-fits-all that was pushed by the companies before publication of his work...It would be fair to say that many physicians around the country -myself included- discovered a new perspective on this issue and changed their practice because of Dr. Raghavendran’s studies. Second, his initial KO8 and subsequent RO1 NIH Awards gave genesis to multiple articles on the issue of gastric aspiration in combination with pulmonary contusion...Again, his research had a positive and focused effect on the practices of many physicians.”

Summary of Recommendation:

Dr. Krishnan Raghavendran is recognized by his peers as an excellent clinician, surgeon, and teacher and is highly regarded for his contributions to research. I am pleased to recommend him for the granting of tenure to be held with his title of associate professor of surgery.


James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2011