

PROMOTION RECOMMENDATION  
UNIVERSITY OF MICHIGAN  
DEPARTMENT OF ANESTHESIOLOGY

Approved by the Regents

May 17, 2007

Shobha V. Malviya, M.B.B.S., Associate Professor of Anesthesiology, with tenure, Department of Anesthesiology, Medical School, is recommended for promotion to Professor of Anesthesiology, with tenure, Department of Anesthesiology, Medical School.

Academic Degrees:

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| M.B.B.S. | 1981 | Topiwala National Medical College, Bombay University, Bombay, India |
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Professional Record:

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| 2000-Present | Associate Professor of Anesthesiology, University of Michigan |
| 1991-2000    | Assistant Professor of Anesthesiology, University of Michigan |
| 1988-1991    | Instructor of Anesthesiology, University of Michigan          |

Summary of Evaluation:

Teaching: Dr. Malviya is one of five faculty who sub-specialize in pediatric cardiac anesthesiology. This is a demanding subspecialty which requires not only training in anesthesiology and pediatric anesthesiology, but also the subspecialty care of patients undergoing the surgical repair of congenital heart defects. In this role, she is responsible for training residents in anesthesiology and fellows in pediatric anesthesiology. Her excellence as a teacher is demonstrated by her high teaching evaluation scores in resident and fellow evaluations. Each day when the faculty works in the operating rooms the residents evaluate the faculty's performance and the faculty evaluate the resident or fellow's performance. These performance evaluations are on a one to five point scale where five is the highest possible score. Dr. Malviya's scores have averaged 4.15, which is "Exceeds Expectations." Dr. Malviya also has extensive experience as a lecturer, participating regularly in department conferences. She provides essential didactic teaching in the areas of pediatric anesthesiology and pediatric cardiac anesthesiology.

Research: Despite the fact that Dr. Malviya has only two days per week specifically assigned for academic and administrative duties, she has continued to be extremely productive as evidenced by her 67 peer-reviewed publications (35 of which have been published since her promotion to Associate Professor), 14 book chapters (five of which have been published since her last promotion), and her editorship of a book. Additionally, she has been the principal investigator on a funded NIH grant investigating pain assessment in cognitively impaired children, and a co-investigator on a second RO1 NIH-funded grant investigating informed consent. Dr. Malviya's research has changed the worldwide practice of pediatric anesthesiology. She conducted the original work which demonstrated the age at which outpatient surgery can be conducted on an infant. More recently, she has demonstrated a clinically effective way to assess safe readiness

for discharge after children have received sedation for medical diagnostic or therapeutic procedures. This clinical assessment tool has been crucial in the safe management of children after these procedures. Finally, her work evaluating the effect of upper respiratory infections on the outcome of patients after major surgical procedures has demonstrated that these procedures may be conducted without long term sequelae. This is an important medical, social, and economic issue relating to the medical care of these small patients.

#### Recent and Significant Publications:

Malviya S, Voepel-Lewis T, Tait AR: A comparison of observational and objective measures of sedation in children from birth to 18 years of age. *Anesth Analg* 102:389-394, 2006. This article was the subject of an editorial: Kerssens C, Sebel PS: To BIS or Not to BIS? That is the Question. *Anesth Analg* 102:380-382, 2006.

Malviya S, Voepel-Lewis T, Burke C, Merkel S, Tait AR: The Revised FLACC Observational Pain Tool: Improved reliability and validity for pain assessment in children with cognitive impairment. *Pediatric Anesthesia* 16:258-265, 2006.

Malviya S, Voepel-Lewis T, Ludomirsky A, Marshall J, Tait AR: Can we improve the assessment of discharge readiness? A comparative study of observational and objective measures of depth of sedation in children. *Anesthesiology* 100:218-224, 2004. This article was the subject of an editorial: Coté CJ: Discharge Criteria for Children Sedated by Non-Anesthologists: Is Safe Really Safe Enough? *Anesthesiology* 100:207-208, 2004.

Malviya S, Voepel-Lewis T, Siewert M, Pandit UA, Riegger LQ, Tait AR: Risk factors for adverse postoperative outcomes in children presenting for cardiac surgery with upper respiratory tract infections. This article was featured in *This Month in Anesthesiology*. *Anesthesiology* 98:628-632, 2003.

Malviya S, Voepel-Lewis T, Tait AR, Merkel S, Tremper K, Naughton N: Depth of Sedation in Children Undergoing Computed Tomography: Validity and Reliability of the University of Michigan Sedation Scale (UMSS). *British J Anaesth* 88:241-245, 2002.

Service: Dr. Malviya is assigned to patient care in the operating rooms and on call for pediatric cardiac surgical procedures 50% of her time. The Mott Children's Hospital is a world renowned center for pediatric cardiac surgical care. The distinguished pediatric cardiac surgeons require highly skilled and sub-specialized pediatric anesthesiologists to care for these patients while they undergo repair of their complex cardiac physiology. Dr. Malviya has been a member of this pediatric cardiac team for 17 years. She is one of the most experienced clinicians in the world in the anesthetic care of these patients. She is part of the call team that is available 24-hours a day, 7-days a week to care for the patients who undergo these procedures electively or in emergent situations. She is also a member of the in-house pediatric and obstetrical call team caring for women in labor and acute surgical emergencies for children. In addition to this demanding clinical service, Dr. Malviya has a significant academic and administrative role within the department, the institution, and nationally.

At the University of Michigan, Dr. Maviya is the Director of Pediatric Anesthesiology Research; she is also the Director of the Pediatric Pain and Sedation Service. She has been Co-Director of the Sedation/Analgesia Task Force for the institution, as well as being Co-Chair of the Policies and Guidelines Committee for Pain Management Practice at our institution. She is a reviewer for all of the journals with interest in Pediatric Anesthesiology, including *Anesthesiology*, *Anesthesia & Analgesia*, *Journal of Pediatrics*, *Journal of Clinical Anesthesia*, *Pediatrics*, and *Pediatric Anesthesia*. She is American Board Certified in Pediatrics and in Anesthesiology. In 2005, she received the Blue Cross Blue Shield of Michigan McDevitt Excellence in Research Award for Physicians in the area of policy research. This was for her work in developing criteria for discharge readiness for pediatric patients receiving sedation for medical or surgical procedures. Nationally, she served on the Board of Directors of the Society of Pediatric Anesthesia and Co-Chair of the Communications Committee. She has also been elected to the Association of University Anesthesiologists, and more recently is a founding member of the Organizing Committee for the Congenital Cardiac Anesthesia Society.

External Review:

Reviewer A: “Dr. Malviya’s publications have significantly impacted pediatric care both in developing assessment tools for pain management in cognitively impaired children and more recently in developing sedation assessment tools for recovery from sedation or anesthesia in children...I believe Dr. Malviya’s accomplishments would easily lead to her promotion to Professor in my home institution.”

Reviewer B: “As a leader in the field of pediatric anesthesiology and in particular, pediatric pain management and sedation, Shobha has distinguished herself as one of the leaders in this country if not the world in the assessment of pain in children, especially those with cognitive impairment, as well as the provision of safe and effective sedation of children by non-anesthesiologists....During almost 20 years in academic medicine, I have written numerous letters for many physicians at several major universities for promotion. I can think of no one more qualified than Dr. Malviya.”

Reviewer C: “It is very clear that she fits within our specialty nationally as one of the true experts in pediatric sedation and its corollary readiness for discharge. Due to her interest in pain, she also has considerable knowledge and expertise in the area of regional anesthesia and is one of those individuals who is respected nationally as a true expert.”

Reviewer D: “I would rank her among the highest among my pediatric anesthesia colleagues in terms of academic productivity and in importance to our specialty.”

Reviewer E: “Her group has defined the standards of practice in our specialty, and for all of perioperative medicine in pediatric hospitals, to differentiate discharge criteria for the newborn.”

Reviewer F: “Based on her talents as a clinician, research investigator, teacher, and administrator, Dr. Malviya has been recognized by her national and international peers as a leader in the field of procedural sedation and analgesia. She has been at the forefront of

scientific investigation and has pioneered several of the most important innovations in this field. Indeed, the University of Michigan Sedation Scale has become the de facto standard for all clinical research in this field....As a teacher and lecturer she is without peer.”

Reviewer G: “Dr. Malviya’s list of peer-reviewed, scientific publications on these topics is truly remarkable, and it is my opinion that she has become the premier researcher internationally in her field.”

Reviewer H: “Dr. Malviya has achieved national prominence in the area of pediatric anesthesiology and has contributed original works particularly in the delivery and assessment of pediatric sedation.”

Reviewer I: “Her consistent record of academic, research, and educational contributions, along with significant administrative and leadership activities are exemplary, as well as her strong advocacy for better pain and sedation management for children. She is nationally known for her excellence in clinical care, teaching and research, and she has been a strong presence and representative of the University of Michigan.”

Reviewer J: “Dr. Malviya is recognized as an outstanding educator. She has been involved in teaching activities that include not only clinical education of anesthesiology residents and pediatric anesthesiology fellows, but also mentoring numerous undergraduate students, medical students, and fellow and junior faculty members for research projects.”

Reviewer K: “...Dr. Malviya is an extraordinary scholar and clinician who ranks among the very top in her profession. Her talent, hard work, creativity, insight, and leadership have given an entire generation of pediatric anesthesiologists sound scientific information to replace subjectivity and tradition.”

Reviewer L: “...Dr. Malviya is an excellent leader and role model for other Pediatric Anesthesiologists who are both junior as well as her colleagues.”

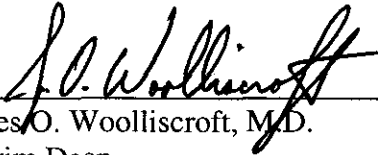
Reviewer M: “...she is an outstanding anesthesiologist, has made many intellectual contributions to our field, and promises to continue her scholarly endeavors in the future. She is an asset to your department, and would be a valued faculty member at any American university medical center. Were she at [my institution], she would have no difficulty whatever in obtaining the rank of full professor.”

Reviewer N: “Shobha’s list of mentees is considerable, attesting to her ability to inspire and motivate medical students and anesthesia residents alike....At [my institution], with Shobha’s track record of academic achievement and her continued involvement that benefit the Institution, there would be no hesitation in promoting her to Professor. In fact, she would have been already promoted.”

Reviewer O: “In comparison to her peers, academic pediatric anesthesiologists, her record of scholarship and her professional standing are outstanding....This appears to me to be a wise and timely promotion.”

Summary of Recommendation:

Shobha Malviya, M.B.B.S., provides outstanding clinical care for her patients in pediatric anesthesia, and, more specifically, patients requiring pediatric cardiac anesthesia. Her combined clinical skill, fund of knowledge, and research enables her to be a superb clinician teacher in this important area of subspecialty clinical care for our institution. She is an essential member of the clinical and educational team which provides training to the Department's 98 interns and residents and six fellows in pediatric anesthesiology. She has become nationally and internationally recognized for her superb clinical research which has only accelerated since her promotion to associate professor. She has brought this national and international recognition to herself, the Department of Anesthesiology, and our University. She is a role model for junior faculty, especially for women in academic medicine. For all these reasons, I strongly support her promotion to the rank of Professor in the Department of Anesthesiology, Medical School.



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James O. Woolliscroft, M.D.  
Interim Dean  
*Lyle C. Roll Professor of Medicine*

May 2007