

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF ANESTHESIOLOGY

Sachin Kheterpal, M.D., assistant professor of anesthesiology, Department of Anesthesiology, Medical School, is recommended for promotion to associate professor of anesthesiology, with tenure, Department of Anesthesiology, Medical School.

Academic Degrees:

M.B.A.	2004	University of Michigan
M.D.	1999	University of Michigan (InteFlex)
B.S.	1996	University of Michigan

Professional Record:

2008-present	Assistant Professor of Anesthesiology, University of Michigan University of Michigan, Ann Arbor, MI
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Summary of Evaluation:

Teaching: Dr. Kheterpal is an adult anesthesiologist with a subspecialty expertise in anesthesia for patients undergoing solid organ transplant. In that capacity he teaches residents in the operating room while providing care for these complex surgical procedures. He receives high evaluations for his teaching performance from the residents he trains. In addition, he instructs and mentors residents and fellows in outcomes research.

Research: Dr. Kheterpal's area of investigation is using large databases derived from clinical information systems in the perioperative period. He has focused on identifying the risk factors for identification and management of difficult airway patients, predicting and identifying risk factors for perioperative renal failure, as well as perioperative myocardial infarction. He has 37 peer-reviewed papers, 10 review articles, two invited editorials, as well as five book chapters. His publications on identifying and managing difficult airways in the operating room and on the hospital floors are landmark papers which have affected the approach as a specialty to those acute situations. His work on predictors of perioperative renal failure and perioperative myocardial infarction are also landmark papers. The study on perioperative myocardial infarction is the first paper to identify intraoperative, modifiable events that increase the risk of postoperative infarction. Dr. Kheterpal has given 25 invited lectures nationally and internationally, 10 of which have been invited visiting professorships at our nation's most prestigious academic institutions including Johns Hopkins, Massachusetts General Hospital, Vanderbilt, UC San Francisco and Washington University in St. Louis. Dr. Kheterpal is a reviewer for *Anesthesia and Analgesia*, *Annals of Surgery*, and *Journal of Clinical Anesthesia*; and is on the editorial board of *Anesthesiology*. In 2013, Dr. Kheterpal received the Presidential Scholars Award given by the American Society of Anesthesiologists to honor one exceptional academic anesthesiologist within their first seven years of training. Dr. Kheterpal is a nationally and internationally recognized scholar, also evidenced by his election to membership in the Association of University Anesthesiologists.

Recent and Significant Publications:

Kheterpal S, O'Reilly M, Englesbe MJ, et al. Preoperative and intraoperative predictors of cardiac adverse events after general, vascular, and urological surgery. *Anesthesiology* 110:58-66, 2009.

Kheterpal S, Tremper KK, Heung M, Rosenberg AL, Englesbe M, Shanks AM, Campbell DA Development and validation of an acute kidney injury risk index for patients undergoing general surgery: results from a national data set. *Anesthesiology* 110:505-515, 2009.

Martin LD, Mhyre JM, Shanks AM, Tremper KK, Kheterpal S: 3,423 emergency tracheal intubations at a university hospital: airway outcomes and complications. *Anesthesiology* 114:42-48, 2011.

Pannucci CJ, Shanks A, Moote MJ, Bahl V, Cederna PS, Naughton NN, Wakefield TW, Henke PK, Campbell DA, Kheterpal S: Identifying patients at high risk for venous thromboembolism requiring treatment after outpatient surgery. *Annals of Surgery* 255:1093-1099, 2012.

Kheterpal S, Healy D, Aziz M, Shanks AM, Freundlich RE, Linton F, Martin LD, Linton J, Epps JL, Fernandez-Bustamante A, Jameson LC, Tremper T, Tremper KK: Incidence, predictors, and outcome of difficult mask ventilation combined with difficult laryngoscopy: A report from the multicenter perioperative outcomes group. *Anesthesiology* 119:1-10, 2013.

Service: Dr. Kheterpal has a variety of administrative positions in the department and in the institution. He is the principal investigator and director of the Multicenter Perioperative Outcomes Group (MPOG), the director for the Center for Perioperative Outcomes Research (CPOR) in the Department of Anesthesiology, the director of the department's Anesthesia Clinical Research Committee (ACRC), and he is on the Executive Committee of the Michigan Surgical Quality Collaborative; and at the institutional level he is the associate chief medical information officer, and a senior director of research information technology for the Medical School. Dr. Kheterpal is a practicing transplant anesthesiologist and a member of the Liver Transplant Team and Major Vascular Anesthesia Team. He provides care for patients undergoing complex solid organ transplants as well as complex major vascular procedures. He works in the main operating rooms of the University Hospital and also in the operating rooms of the Cardiovascular Center. In this capacity he is responsible for 24-by-7 emergency call for patients undergoing liver transplants and major vascular procedures. In spite of this significant clinical effort, Dr. Kheterpal has an impressive academic and administrative productivity.

External Reviewers:

Reviewer A: "In a very few years Sachin played a leading role in moving national electronic medical records forward and applied business principles and a focus on sharing and user utility to generate MPOG, a rapidly expanding group of hospitals sharing rich data for research and improving patient care."

Reviewer B: "He has had a significant impact on the specialty of anesthesiology and medicine in general, and I would strongly advocate for his promotion to associate professor with tenure. I believe he has already achieved the metrics of success required for promotion, and I fully expect that his career will continue to grow."

Reviewer C: "His enthusiasm and vision have been an inspiration for German national and European efforts to duplicate and extend what he has achieved with MPOG in the US in the recently initiated ZaPoD (Zentralarchiv Perioperativer Daten) and EUPOG (European Perioperative Outcomes Group) projects."

Reviewer D: “....Dr. Kheterpal has gained [an] international reputation for his innovative approaches to investigation of outcomes and mechanisms of perioperative difficult airways with using the large clinical database of University of Michigan, and has published many influential original articles in peer-reviewed high-impact anesthesia journals such as ANESTHESIOLOGY.”

Reviewer E: “I think that our specialty is better off for the involvement of Dr. Sachin Kheterpal. He has been remarkable in bringing to the fore the data rich environment in which we as anesthesiologists practice. His remarkable insights, coupled with his computer engineering skills have melted together to the great benefit of our entire specialty.”

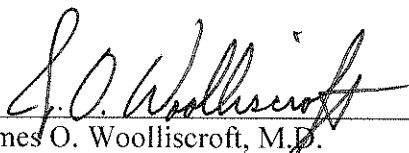
Reviewer F: “He is a superb investigator and widely considered one of the specialty’s experts on epidemiologic research and registry analysis. Any department would be lucky to have Sachin.”

Reviewer G: “The Affordable Care Act (ACA) of 2010 requires implementation of government-certified electronic medical records as part of its quality and reimbursement processes....Dr. Kheterpal subsequently played a pivotal role in speaking with leaders within Health and Human Services and convincing them to extend the period for anesthesiologists’ participation in implementing electronic medical records and meeting the ACA’s requirements. His expertise on this topic and his ability to speak with expertise and in plain, clear language were crucial.”

Reviewer H: “I would describe Dr. Kheterpal’s scholarship and efforts to collect national and international perioperative data as one of the most important events in the field of clinical anesthesia today.”

Summary of Recommendation:

Dr. Sachin Kheterpal is a nationally and internationally recognized academician who contributes administratively at all levels. He has published in top journals, including *Anesthesiology*, *Anesthesia and Analgesia*, and the *Annals of Surgery*. He has received peer-reviewed funding for his efforts and has won the most prestigious Presidential Scholars Award. He has initiated and managed the nation’s first perioperative outcomes research organization (MPOG) which is providing unique opportunities for outcomes research in the perioperative space. Overall, Dr. Kheterpal is a gifted academician in every respect. I am pleased to recommend Sachin Kheterpal, M.D. for promotion to associate professor of anesthesiology, with tenure, Department of Anesthesiology, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2014