

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF SURGERY
DEPARTMENT OF LEARNING HEALTH SCIENCES

Gurjit Sandhu, Ph.D., assistant professor of surgery, Department of Surgery, and assistant professor of learning health sciences, Department of Learning Health Sciences, Medical School, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, and associate professor of learning health sciences, without tenure, Department of Learning Health Sciences, Medical School.

Academic Degrees:

Ph.D.	2006	Queen's University, Kingston, Ontario, Canada
M.A.	2000	Queen's University, Kingston, Ontario, Canada
B.A.	1999	Queen's University, Kingston, Ontario, Canada
B.A.	1996	University of British Columbia, Vancouver, BC, Canada

Professional Record:

2015- Present	Assistant Professor of Learning Health Sciences, University of Michigan
2013- Present	Assistant Professor of Surgery, University of Michigan
2008- 2013	Adjunct Assistant Professor of Education, Queen's University
2007- 2013	Adjunct Assistant Professor of Interdisciplinary Studies, Queen's University
2005	Sessional Lecturer of Anthropology and Sociology, Carleton University
2000-2008	Adjunct Instructor/Lecturer of Education, Queen's University

Summary of Evaluation:

Teaching: A passion for teaching is evident throughout all aspects of Dr. Sandhu's career. She actively teaches medical students, residents, fellows and faculty. Her contributions result in approximately 400 hours per year of teaching and educational activity. She mentored a surgery resident on the development of the first Residents as Educators curriculum for the Department of Surgery. In keeping with sound educational practices to evaluate the program regularly, she has adapted the workshops that are part of this program in order to meet the needs of learners as content and context change. Dr. Sandhu is co-leader of Doctors of Tomorrow, which is an initiative within the Department of Surgery that demonstrates the promise of the department to diversity, equity and inclusion to high school students. She actively teaches medical students involved in the program so that they may go on to teach the high school students in an engaging manner. Dr. Sandhu has also led efforts in the department, via the Milestones Assessment and Evaluation Committee, to identify assessment and evaluation gaps. This resulted in better assessment of

resident teaching and alignment with Accreditation Council of Graduate Medical Education assessment guidelines. Dr. Sandhu received the Provost's Teaching Innovation Prize in 2016, has delivered countless institutional lectures, and has served on seven dissertation committees. She also received a Token of Appreciation Award from medical students in 2017, and comments about her personal impact were impressive. Dr. Sandhu has been a visiting professor to the University of Wisconsin, and the University of Rochester.

Research: Dr. Sandhu has established herself as a national leader in surgical education with a focus on adult learning, specifically on surgical education, including establishing intraoperative entrustment and measuring autonomy in surgical residents. She is a renowned national expert in gender disparity and outcomes in surgery. There is substantial interest in this domain and she is undertaking the first large scale qualitative study of its kind. Dr. Sandhu has identified faculty and resident entrustment behaviors, and the interaction between surgeon and trainee as a critical area of study for optimizing training. Her focus on entrustment as it informs the development of learner autonomy in a supervised setting is at the forefront of calls for competency-based education. Her work has augmented the way faculty think about and approach teaching. Furthermore, surgery residents better understand their roles with respect to driving their own education forward. As the American Board of Surgery explores models of competency-based education through a national pilot study, Dr. Sandhu's work has already helped prepare the Department of Surgery for fluid implementation. While entrustment and intraoperative teaching are central to her research interests, she continues to pursue additional projects with medical student and youth from communities that are unrepresented in medicine. Investigations in these areas have also yielded publications and presentations both regionally and nationally. Dr. Sandhu is the principal investigator of foundation and institutional grants, and a co-investigator of institutional grants and is clearly garnering national support for her work, through mechanisms considered to be highly competitive. She has 47 peer-reviewed publications in top journals including the *Annals of Surgery*, which evidences excellent visibility for her research. Dr. Sandhu has been invited to present her research nationally and internationally, in Ethiopia.

Recent and Significant Publications:

Sandhu G, Teman NR, Minter RM: Training Autonomous Surgeons: More Time or Faculty Development: *Annals of Surgery* 261(5): 843-845, 2015.

Sandhu G, Magas C, Robinson A, Scally C, Minter, R: Progressive Entrustment to Achieve Resident Autonomy in the Operating Room: A National Qualitative Study with General Surgery Faculty and Residents. *Annals of Surgery* 265: 1134-1140, 2016.

Nikolian V, Sutzko D, Georgoff P, Matusko N, Boniakowski A, Prabhu K, Church J, Thompson-Burdine J, Minter R, Sandhu G: Improving the Feasibility and Utility of OpTrust-a Tool Assessing Intraoperative Entrustment. *American Journal of Surgery* 216(1): 13-18, 2017.

Sandhu G, Thompson-Burdine J, Nikolian V, Sutzko D, Prabhu K, Matusko N, Minter R: Association of Faculty Entrustment with Resident Autonomy in the Operating Room. *JAMA Surgery* 153(6); 518-524, 2018.

Sandhu G, Nikolian V, Mages C, Stansfield R, Sutzko D, Prabhu K, Matusko N, Minter R: OpTrust: Validity of a Tool Assessing Intraoperative Entrustment Behaviors. *Annals of Surgery* 267(4): 670-676, 2018.

Service: Dr. Sandhu has invested in surgical education and medical education through her service to the Department of Surgery, the Medical School, the University of Michigan and the national surgical education community. Institutionally, she is the co-director of the Milestones Assessment and Evaluation Committee which identifies assessment gaps in the program and works to integrate instruments and processes to address those areas. She is an active member on the general surgery Program Evaluation Committee, both the junior and senior Clinical Competency Committees, and the Michigan Women's Surgical Collaborative. Her expertise as an education scientist is seen as an asset which informs the work and outcomes of all these committees. Dr. Sandhu serves on the Medical School Admissions Executive Committee and was elected to the Senate Assembly Committee as a representative of the Medical School. Nationally, Dr. Sandhu is the membership chair of the Association for Surgical Education which will jointly host an annual surgery education meeting with the Association of Program Directors in Surgery. She has served as an ad hoc reviewer for 18 journals and has served as co-editor of the *Journal of Critical Race Inquiry*.

External Reviewers:

Reviewer A: "She has an outstanding track record in terms of publications on these topics in high quality surgical journals, and has been successful in achieving significant grant funding to develop this work. These accomplishments are a testimony to the both the quality and importance of her work."

Reviewer B: "Dr. Sandhu's research is groundbreaking in understanding what are the key factors that drive faculty behavior with entrustment. Her work has described faculty variation with entrustment, constructs that impede or promote optimal faculty-resident interactions around entrustment, etc. Her work is advancing the field and will have an impact on how we train surgical residents going forward."

Reviewer C: "I know of no current peers in her area (PhD educators, working in Surgery) who have the same reach, impact and diligence as Dr. Sandhu. Further, based on my review of her materials assembled for her promotions packet, I find she meets criteria for promotion to Associate Professor at University of Michigan and would similarly meet criteria for promotion at my institution."

Reviewer D: "With respect to Dr. Sandhu's standing in relation to her peer group, until recently very few if any departments could afford a Ph.D. working in Education. It is my feeling that Dr. Sandhu serves as the model of for how such a position can be successful in a Department of Surgery and therefore I certainly would put her amongst a high level of Ph.D. educators on surgical services."

Reviewer E: "Dr. Sandhu's work, and her related reputation nationally is one I would place at the highest level amongst active education oriented PhD's working within departments of surgery in the United States, and even internationally."

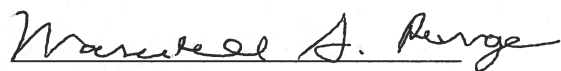
Reviewer F: “It is apparent from reviewing her CV that Dr. Sandhu is an outstanding scholar and a dedicated teacher. Her research is far – reaching and she is a respected scholar at a national level. She is above her peers in productivity, in critical thinking and in her vision for the future.”

Reviewer G: “Dr. Sandhu would most definitely be promoted...not merely for her research productivity, but for her multiple roles as a reviewer for journals (18); her teaching and research mentorship of dozens of medical students, house officers, clinical fellows and faculty members. She has served on dissertation committees as well as multiple committees within the department and the medical school.”

Reviewer H: “I am most impressed with Gurjit’s quality and quantity of her scholarship. While funding opportunities for medical education research do exist, it can often be a challenge for professional educators to secure support. In my opinion, Gurjit has been strategic with her approach to gaining funding by first taking advantage of internal grant opportunities within U of M GME, building her research skills and niche, and then seeking external grant support from prestigious foundations.”

Summary of Recommendation:

Dr. Sandhu is well respected by her colleagues as a researcher, leader, and dedicated teacher. She has focused her efforts on adult learning and surgical education, and has remarkable dedication to teaching. She is a valued primary contributor to our missions in research, service and teaching. I am pleased to recommend Gurjit Sandhu, Ph.D. for promotion to associate professor of surgery, with tenure, Department of Surgery, and associate professor of learning health sciences, without tenure, Department of Learning Health Sciences, Medical School.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School

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