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

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

Acad	lemic	Degree	s:

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

Professional Record:

2019 – Present	Associate Professor (with tenure), Department of Surgery, University of
	Michigan
2019 – Present	Associate Professor (without tenure), Department of Learning Health
	Sciences, University of Michigan
2015 - 2019	Assistant Professor, Department of Learning Health Sciences, University of
	Michigan
2013 - 2019	Assistant Professor, Department of Surgery, University of Michigan
2008 - 2013	Adjunct Assistant Professor, Faculty of Education, Queen's University,
	Kingston, Ontario
2007 - 2013	Adjunct Assistant Professor, Department of Geography, Queen's University,
	Kingston, Ontario
2000 - 2008	Adjunct Instructor/Lecturer of Education, Queen's University, Kingston,
	Ontario

Summary of Evaluation:

<u>Teaching:</u> Dr. Sandhu is a dedicated teacher and mentor who instructs learners at various levels including undergraduate students, graduate students, medical students, residents, clinical fellows, and faculty members. Many of these mentees and trainees have moved on to highly successful careers. Teaching evaluations are very good to excellent. Her teaching philosophy emphasizes responsive teaching that invites diverse perspectives and uses inclusive and imaginative strategies to cultivate a partnership between learners and educators. She provides numerous lectures for our trainees and faculty. She is the director of quality improvement and curriculum development for the Doctors of Tomorrow (DoT) pathway program that connects high school and undergraduate students from Detroit to the University of Michigan Medical School for opportunities to become a researcher or healthcare provider. Nationally, Dr. Sandhu is the director of the Association for Surgical Education (ASE) Research Fellowship. Departmentally, she serves as the associate

program director for personal and professional development, and vice chair of resident professional development. In 2022, the ASE recognized Dr. Sandhu's teaching with the Distinguished Mid-Career Educator Award, and in 2023, she was added to the Surgical Educators and Mentors Wall of Honor.

Research: Dr. Sandhu's research largely focuses on surgeons' intraoperative entrustment behaviors and entrustable professional activities (EPA) for trainees and faculty in the field of surgery. Her research has illuminated the landscape of surgery education, such as multi-site research that has provided evidence that surgical faculty entrustment behaviors drive surgical resident entrustability as it pertains to intraoperative education. She has also conducted research into psychological safety and wellbeing in the clinical learning environment, an important endeavor in a post-pandemic world with genuine concerns for healthcare workers and trainee burnout. This work helped prepare the UM Department of Surgery for the implementation of new models of competency-based education directed by the American Board of Surgery. Dr. Sandhu has succeeded in obtaining funding for her research program and has a track record of success, even though funding for surgical and medical education is very difficult to come by. She is currently funded by the Association for Surgical Education and a Graduate Medical Education Innovations Grant. She has authored 112 peer reviewed manuscripts in top tier journals such as the Annuals of Surgery, Journal of Surgical Education, and BMC Medical Education. She has been a visiting professor twice, a keynote speaker, and disseminated 229 abstracts. She has been invited to present her research more than 49 times nationally and internationally including in France, Ethiopia, Canada, and South Africa.

Recent and Significant Publications:

- Williams AM, Karmakar M, Thompson-Burdine J, Matusko N, Ji S, Kamdar N, Seiler K, Minter RM, Sandhu G, "Increased Intraoperative Faculty Entrustment and Resident Entrustability Does Not Compromise Patient Outcomes Following General Surgery Procedures," *Annals of Surgery* 275(2): e366-74, 2022. PM32541221
- Maduka RC, Broderick M, White EM, Ballouz D, Sandhu H, Kwakye G, Chen H, Sandhu G, "The Reporting of Race and Ethnicity in Surgery Literature," *JAMA Surgery* 156(11): 1036-41, 2021. PM34406343
- Evans J, Kemp MT, Rivard SJ, Sharma SB, Williams AM, Coleman D, Dimick JB, Sandhu G, "Not Just Bystanders: A Qualitative Study on the Vicarious Effects of Surgical Training on the Wellness of Support Persons for Trainees," *Annals of Surgery* 274(3): e295-e300, 2021. PM33856389
- Burdine J, Thorne S, Sandhu G, "Interpretive Description: A Flexible Methodology for Medical Education Research," *Medical Education* 55(3): 336-43, 2021. PM32967042
- Thompson-Burdine JA, Telem DA, Waljee JF, Newman EA, Coleman DM, Stoll HI, Sandhu G, "Defining Barriers and Facilitators to Advancement for Women in Academic Surgery: A Qualitative Study," *JAMA Open* 2(8): e1910228-e1910228, 2019. PM31469392

<u>Service</u>: Dr. Sandhu has an outstanding service record. Her national service is evident in her participation which has progressed to leadership roles in several national associations' key committees. These include the Association for Surgical Education's Membership Committee (chair), Surgical Education Research Fellowship (director), and Diversity Equity Inclusion (DEI) Committee (vice chair). Additionally, she serves on an advisory panel for Entrustable Professional

Activities (EPA) on the American Board of Surgery, as well as the chair of their associated Resident/Faculty Development Task Force. Dr. Sandhu is the associate editor of two journals. Institutionally, she has extensive service with committee/service roles and a long and robust track record of service in rank. These include her roles as the associate program director for general surgery, vice chair for resident professional development, and member of both the Admissions Executive Committee and Admissions Leadership Team. She also took a leadership role with the Michigan Promise Culture Crew which focuses on bystander training and mental health awareness.

External Reviewers:

Reviewer A: "Gurjit Sandhu's commitment to service within her department, university, and broader academic community is commendable. She has actively engaged in academic committees, taken leadership roles in relevant initiatives, and collaborated on interdisciplinary projects that have benefitted the university and beyond. Her work with the Association for Surgical Education and the American Board of Surgery has been outstanding."

Reviewer B: "Dr. Sandhu's dedication to teaching and mentorship is evident through her extensive involvement in educational activities, both regionally and institutionally. She has played a pivotal role in developing the educational landscape at the University of Michigan, particularly in the Department of Surgery, where she has led workshops, facilitated sessions, and contributed to the development of curricula. Her mentorship extends to various levels of learners, including residents and medical students, and her commitment to the holistic development of her mentees is truly admirable. Her contributions to resident entrustment and career development have significantly enriched the educational experiences of aspiring surgeons."

Reviewer C: "The quality of her publications in these areas appears to be excellent. Her five selected publications are all recent, and all in good journals...Her most impactful scholarly publication is the paper from Medical Education in 2020, detailing the research technique of interpretive description, and its use in medical education research. This is a very clear and useful methodologic paper that has been cited about 50 times, and will clearly influence other work."

Reviewer D: "Dr. Sandhu is a standout among her peers, and I would rank her in the top five percentile in relation to others in her field. She has contributed and continues to contribute to the advancement of the surgical field by her participation in national discourse and her contribution by way of publications. She has published extensively in surgical education, and she is a natural-born educator."

Reviewer E: "She is a member of several academic societies and national committees. Recent awards and recognition include the Distinguished Mid-Career Educator Award in 2022 and the Surgical Educators and Mentors Wall of Honor by the Association for Surgical Education Foundation in 2023."

Reviewer F: "Dr. Sandhu's scholarly contributions have been exceptional. During her career she has published 106 peer reviewed articles in respected surgical and education journals. Her productivity skyrocketed after her promotion to associate professor in 2019 as she has published 67 papers since, of which 5 as first author and 34 as senior author...Dr. Sandhu compares favorably

to a similar level and background scholars in the field. She has achieved a level of international recognition that is commensurate to the rank of professor with tenure."

Summary of Recommendation:

Dr. Sandhu is a nationally and internationally prominent investigator in medical education sciences, with a particular focus on surgical education. She has made a significant impact and become a leader in the development of methods to teach and measure operative entrustment among surgical residents and surgical faculty in the clinical environment. She demonstrates a strong commitment to research, teaching, and service excellence. I am pleased to recommend Gurjit Sandhu, Ph.D. for promotion to professor of surgery, with tenure, Department of Surgery, and 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

Warwell S. Runge

Dean, Medical School

May 2024