PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF SURGERY A. ALFRED TAUBMAN COLLEGE OF ARCHITECTURE AND URBAN PLANNING

Andrew M. Ibrahim M.D., M.Sc., assistant professor of surgery, Department of Surgery, Medical School, and assistant professor of architecture and urban planning, A. Alfred Taubman College of Architecture and Urban Planning, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School, and associate professor of architecture and urban planning, without tenure, A. Alfred Taubman College of Architecture and Urban Planning.

Academic Degrees:

M.Sc.	2017	University of Michigan, Ann Arbor, MI
M.D.	2012	Case Western Reserve University, Cleveland, OH
R A	2007	Case Western Reserve University Cleveland OH

Professional Record:

2020-present	Assistant Professor, Department of Surgery, University of Michigan
2020-present	Assistant Professor, Department of Architecture, A. Alfred Taubman
	College of Architecture and Urban Planning, University of Michigan

Summary of Evaluation:

Teaching: Dr. Ibrahim instructs learners through clinical and research mentorship and didactic teaching. He has mentored faculty, residents, post-doctoral fellows, medical students, graduate students, and research staff. Several of his post-doctoral mentees have published manuscripts under his mentorship. Teaching evaluations are very good. He is the surgery clerkship director for medical students rotating in surgery at the Veterans Affairs hospital, where he created and directs the Center for Healthcare Outcomes and Policy (CHOP) bootcamp that trains post-doctoral fellows in health services research. Didactically, he is active across campus teaching "Health by Design" (ARCH 409) and "Shifting Tectonics" (ARCH 509 / NUR 539) in the A. Alfred Taubman College of Architecture and Urban Planning, as well as several lectures in the School of Nursing, and the Stephen M. Ross School of Business. Nationally, he has served as a teaching faculty for the American College of Surgeons Biennial Health Services Research Course, the Association for Academic Surgery Fall Courses, and the Society for University Surgeons' Surgical Investigator Course. Dr. Ibrahim has gone on to teach internationally including the "The Use of Visual Abstracts to Disseminate Scientific Research" for the Institute for Innovation and Improvement, Auckland, New Zealand. Evidence of his teaching excellence is supported by his receipt of the Michael Zinner Award as a faculty mentor for the Surgical Outcomes Club in 2022, he has received several resident teaching awards, a Token of Appreciation from Medical Students Award, and he has been a finalist for two other teaching awards. He has been nominated for both the prestigious Coran Teaching Award and the Silver Scalpel Teaching Award (twice) that recognize top faculty teachers at Michigan Medicine.

Research: Dr. Ibrahim's research is at the intersection of architecture, healthcare delivery, and health services research. His research evaluates health and the built environment at three scales: individual buildings, series of buildings, and neighborhoods. Specifically, he uses administrative claims data, electronic medical record data, and causal inference methods to evaluate the design within individual hospitals, the regional delivery of care across hospital networks, and how where patients live impacts their ability to access healthcare. He currently serves as a multi-principal investigator on two R01's from the National Institutes of Health (NIH) and is a co-investigator of an NIH R18, a T32 training grant, and a Veteran's Affairs award. He has authored 84 peer-reviewed manuscripts in high-impact senior-authored manuscripts such as *JAMA*, *Health Affairs*, and *Annals of Surgery*. Underscoring the importance of his work the Environmental Design Research Association (EDRA) titled their 53rd annual meeting, "Health in All Design" in recognition of Dr. Ibrahim's landmark work. Notably, EDRA is the world's largest organization committed to studying the built environment and its impact on health. He has also given nine keynote speeches, and been invited on 24 occasions to speak nationally and internationally including in France, New Zealand, the United Kingdom, Israel, and Pakistan.

Recent and Significant Publications:

- Mullens CL, Scott JW, Mead M, Kunnath N, Dimick JB, Ibrahim AM, "Surgical Procedures at Critical Access Hospitals Within Hospital Networks," *Ann Surg.* 278(3): e496-e502, 09/2023. PM36472196
- Mead M, Nanda U, Ibrahim AM, "The Variable Impact of Clinical Risk-Adjustment Models to Evaluate Hospital Design," *HERD*.: 19375867231154250, 04/2023. PM37016837
- Diaz A, Lindau ST, Obeng-Gyasi S, Dimick JB, Scott JW, Ibrahim AM, "Association of Hospital Quality and Neighborhood Deprivation With Mortality After Inpatient Surgery Among Medicare Beneficiaries," *JAMA Netw Open*.6(1): e2253620, 01/2023. PM36716028
- Rollings KA, Kunnath N, Ryus CR, Janke AT, Ibrahim AM, "Association of Coded Housing Instability and Hospitalization in the US," *JAMA Netw Open.* 5(11): e2241951, 11/2022. PM36374498
- Zhang Y, Kunnath N, Dimick JB, Scott JW, Diaz A, Ibrahim AM, "Social Vulnerability And Outcomes For Access-Sensitive Surgical Conditions Among Medicare Beneficiaries," *Health affairs (Project Hope)*. 41(5): 671-679, 01/2022. PM35500193

Service: Dr. Ibrahim has an excellent institutional, national, and international service record. Internationally, he is the chair of the Design and Health Taskforce of the American Institute of Architects. In this role, he leads experts from around the world to translate their health delivery expertise into architectural practice. He serves as a reviewer for Cambridge University's The Healthcare Improvement Studies grant program. Nationally, he serves on the executive council of the Association for Academic Surgery and the board of directors for AcademyHealth. Also of national importance, Dr. Ibrahim established the first Health and Design fellowship that trains architects in health services research; the third fellow will start this year. He serves as the visual abstract editor for the JAMA network of journals (11 in all) and was formerly on the editorial board of the Annals of Surgery. He is an ad hoc manuscript reviewer for numerous journals including PLOS One and JAMA. Institutionally, he serves as the co-director of the Center for Healthcare Outcomes and Policy (CHOP), where he transformed the physical space of CHOP by redesigning more than 7,200 square feet of office space into what is now called "Base Camp." This location is one of the most robust and active at the North Campus Research Center. Dr. Ibrahim is a general

surgeon with expertise in minimally invasive surgery and has built a robust referral practice across the Veterans Affairs hospitals taking on tertiary referrals across the Veterans Integrated Services Networks (VISN) for recurrent hernias and abdominal wall reconstruction. He has received unsolicited praise from hospital colleagues for his help above and beyond as a consultant for shared patients. In addition, he currently serves on several departmental committees and university-wide committees such as the National Clinical Scholars Program and the Clinical Competency Committee.

External Reviewers:

Reviewer A: "Dr. Ibrahim has an impressive research portfolio. He is currently the principal investigator for an AHRQ grant: Fulfilling the promise of hospital consolidation to improve clinical quality and cost."

Reviewer B: "In his roles as Director of Surgery Clerkships at the Ann Arbor Veteran's Affairs Hospital and the Director of the University of Michigan Design and Health Fellowship, he is intricately involved in all aspects of these training programs. His dedication is evidenced by receipt of both the Robert Bartlett Resident Teaching Award and the Susan Coran Senior Resident Teaching Award in 2020, and the Token of Appreciation from Medical Students (TAMS) Award, established to recognize individuals for their significant contributions to the success of students during their medical school years, in 2021."

Reviewer C: "Dr. Ibrahim has actively contributed to service activities within our profession. His involvement in editorial boards, ad hoc journal reviewer, and active role in national committees including Academy Health, has demonstrated his commitment to addressing important healthcare challenges. His willingness to engage in interdisciplinary collaborations have made and will continue to have a significant impact in the field."

Reviewer D: "As though Dr. Ibrahim is not busy enough, he is engaged in many leadership activities as well. Locally, he is the Co-Director of the Center for Healthcare Outcomes and Policy at University of Michigan. Nationally, he is a member of several committees for Academy Health and is an Executive Council member for the Association for Academic Surgery. He is also active in the American Institute of Architects. He is on the Editorial Board of Annals of Surgery."

Reviewer E: "Dr. Ibrahim is a highly sought after and internationally established leader at the unique interface of healthcare delivery, design and architecture. His invited lectures span 5 continents, including several high profile keynotes including; Cambridge University HIS institute, The Center for Healthcare Design, and the Environmental Design Research Association (EDRA). EDRA is the single largest research organization in the country committed to design research, and their 53rd [sic] annual meeting in 2022 was titled, 'Health in All Design' based on Dr. Ibrahim's seminal work. The meeting brought experts from all around the world who all dovetailed their expertise to align with Dr. Ibrahim's 'Health in All Design' work. He has centrally become the go-to expert to better understand how the built environment impacts healthcare delivery and our health."

Reviewer F: "Over the last several years, Dr. Ibrahim has distinguished himself as a surgeon, educator, and researcher. He has been an exemplary and consistent teacher of surgical residents and medical students. From the onset of his academic career, he has been a productive faculty member committed to education, scholarship, and patient care."

<u>Summary of Recommendations:</u> Dr. Ibrahim is a pioneer who is forging a new path at the interface of architecture, surgery, and health services research, and has made a substantive scholarly impact. He has built an impressive portfolio of research, is an excellent physician, a highly valued educator and mentor, and has an outstanding service portfolio. We are pleased to recommend Andrew M. Ibrahim, M.D., M.Sc. for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School, and associate professor of architecture and urban planning, without tenure, A. Alfred Taubman College of Architecture and Urban Planning.

Marschall S. Runge, M.D., Ph.D.

Executive Vice President for Medical Affairs

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