PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF CARDIAC SURGERY DEPARTMENT OF ANESTHESIOLOGY

Jonathan W. Haft, M.D., associate professor of cardiac surgery, with tenure, Department of Cardiac Surgery, and associate professor of anesthesiology, without tenure, Department of Anesthesiology, Medical School, is recommended for promotion to professor of cardiac surgery, with tenure, Department of Cardiac Surgery, and professor of anesthesiology, without tenure, Department of Anesthesiology, Medical School.

Academic Degrees

1996	M.D.	University of Miami, Miami, FL
1991	B.A.	University of Pennsylvania, PA

Professional Record

2012-Present	Associate Professor of Cardiac Surgery, with tenure, University of Michigan
2012-Present	Associate Professor of Anesthesiology, without tenure, University of Michigan
2007-2012	Assistant Professor of Anesthesiology, University of Michigan
2005-2012	Assistant Professor of Surgery, University of Michigan

Summary of Evaluation

Teaching: Dr. Haft has been involved in house officer education since joining the faculty in 2005. His teaching is predominantly with the fellows and residents in cardiothoracic surgery but also extends to extracorporeal membrane oxygenation (ECMO), perfusionists, students, and researchers. He received the Orringer Resident Teaching Award in 2013 and 2018 and the Chief Award for resident advocacy in 2019. In addition, Dr. Haft served as the associate program director of the Cardiothoracic Surgical Residency and Fellowship Programs from 2016-2019. He is an extraordinary educator to multidisciplinary audiences. He has lectured to operating room staff on pulmonary endarterectomy for chronic thromboembolic pulmonary hypertension, the use of ECMO for cardiac and respiratory failure, and heart transplantation. Dr. Haft has given 15 invited talks at 12 different professional society meetings on courses on topics related to ECMO, ventricular assist devices, heart transplantation, and aspects of post-operative critical care.

Research: Dr. Haft's research interests focus on the use of mechanical blood pumps for total circulatory support or isolated organ perfusion. In partnership with a local bioengineering development company, Dr. Haft and his colleagues have created a novel blood pump that may have properties that would be advantageous over predicate devices. A prototype was built and tested both in vitro and using large animal models and it is anticipated this pump will become incorporated into future ECMO systems. He has also studied the deleterious effects of extracorporeal circulation on the inflammatory and coagulation systems. With research partners in Chemical Engineering, Dr. Haft developed a reliable and cost effective technique to generate gaseous NO for delivery into future models of experimental extracorporeal circulation. This work has resulted in R01 funding from the National Institutes of Health. Dr. Haft's laboratory is also devoted to ex vivo cardiac perfusion as a mode of preservation for transplantation. He has published more than 80 peer-reviewed publications, and has been invited to present his research on 53 occasions regionally, nationally and internationally.

Recent and Significant Publications

Carr BD, Johnson TJ, Gomez-Rexrode A, Mohammed A, Coughlin M, Toomasian JM, Rojas-Pena A, Bartlett RH, Haft JW: Effects of Blood-Air Interface in a Porcine Cardiopulmonary Bypass Model. *ASAIO J*, 12/2018.

Haft JW: What is the best tool for rescue? J Thoracic Cardiovasc Surg. 155 (3): 1069-1070, 3/2018.

Turer DM, Koch KL, Koelling TM, Wu AH, Pagani FD, Haft JW: Comparing the Effectiveness of an Axial and a Centrifugal Left Ventricular Assist Device in Ventricular Unloading. *ASAIO J*;62(6): 652-656, 11/2016.

Halaweish I, Cole A, Cooley E, Lynch WR, Haft JW: Roller and Centrifugal Pumps: A Retrospective Comparison of Bleeding Complications in Extracorporeal Membrane Oxygenation. *ASAIO J*;61(5):496-501, 10/2015.

Teman NR, Demos DS, Bryner BS, Faliks B, Jahangir EM, Mazur DE, Rojas-Pena A, Bartlett RH, Haft JW. In Vivo Testing of a Novel Blood Pump for Short-Term Extracorporeal Life Support. *Ann Thorac Surg*.;98(1):97-102, 7/2014.

Service: Dr. Haft has served in a number of a number of administrative leadership positions during his career at the University of Michigan. From 2010-2019, he served as the chief of Cardiothoracic Surgery for the Ann Arbor Veterans Affairs Hospital. From 2016-2019, he served as the associate director for the cardiothoracic residency program. Dr. Haft is currently the medical director of ECMO, which has been recognized internationally as a leading center and has received the Gold Center of Excellence Award from the Extracorporeal Life Support Organization (ELSO). In addition, he serves as the medical director for Cardiovascular Perfusion and associate section head of Clinical Quality, Adult Section of Cardiac Surgery. Dr. Haft has also served in leadership roles for several professional medical societies. He has held the positions of program chair, treasurer, vice president, and resident, for the American Society of Artificial Internal Organs. He has been active volunteering for many other committees throughout our community.

External Reviewers:

Reviewer A: "...Dr. Haft has been a very dedicated physician focused always on details to improve clinical practice and outcomes. His dedication, in the early days of his career, were focused on ECMO support and he made important contributions in his role as Director of the program at the University of Michigan, one of the most respected ECMO programs in the country...Dr. Haft was called to fill a very high impact position left by Dr. Bartlett after his retirement from clinical practice and Dr. Haft was able to perform this seamlessly, keeping a very high level of quality and professionalism that was very noticeable in all his participation in national and international meetings...I have been positively impressed by the evolution of Dr. Haft's career with increasing presence as a leader in the field of cardiothoracic surgery."

Reviewer B: "...He has 82 peer-reviewed publications, with 15 as first-author, 15 as senior author and the remaining publications as a co-author. His scholarship of discovery relates to his clinical work in the mechanical circulatory support/ECMO space. Several of his publications represent his role as a thought leader within the ECMO/MCS space...He also has a track record of modest peer-reviewed funding-having completed a R21 award as a PI and participating in an R34 grant as a CO-PI...Given his cadence of regular peer-reviewed publications, and his invited presentations, Dr. Haft maintains a national reputation as an expert in the field of MCS and ECMO. This designation of a national reputation for scholarship and his cumulative efforts at outstanding and productive scholarship would meet the criteria for promotion to Professor at [my institution]."

Reviewer C: "Dr. Haft has distinguished himself in the field of cardiovascular surgery, especially in the areas of surgical therapies for cardiac and respiratory failure such as heart transplantation and ventricular assist device therapy, as well as extra corporeal membrane oxygenation (ECMO) therapy...Jonathan has made tremendous contribution to this field during a period ranging over a decade...He has also make [sic] pioneering contributions to the development of an artificial lung...It is thanks to his efforts that the cardiovascular program at the University of Michigan is a national leader in the field of cardiac failure therapies including heart transplantation and ventricular assist devices as well as ECMO

for respiratory failure. I can say without any hesitation that Dr. Haft is one of the leaders in the United States as well as internationally in the field of acute and chronic cardiac and respiratory failure. There is absolutely no doubt that based on his accomplishments, Dr. Haft would easily meet the criteria for promotion to full Professor with Tenure at my institution."

Reviewer D: "...Dr. Haft is an internationally recognized cardiac surgeon for his clinical, academic, advocacy and educational contributions...In the clinical realm, Dr. Haft is renowned for his expertise in the surgical and the intensive care of patients with acute and chronic heart failure. Dr. Haft is one of the handful of surgeons that other cardiac surgeons from around the world would call for technical or management advice for these complex patients...Dr. Haft is a recognized leader in the international professional cardiothoracic surgical societies and associations... Dr. Haft is a committed surgical educator ... He is a gifted and effective lecturer and speaker. Dr. Haft's evaluations are always outstanding! ... Dr. Jonathan Haft is an internationally recognized cardiothoracic surgeon .. .I strongly support his academic promotion to the rank of Professor with Tenure (Instructional Track)."

Reviewer E: "...Dr. Haft has been a clinical leader at the University of Michigan. Jonathan had the unenviable task of succeeding the great Robert Bartlett and lead his world class ECMO program. He has done so convincingly. We all continue to look to the University of Michigan program to help us understand how to care for these complex patients...He has also been an invited speaker to all the major national and international meetings. In short, Dr. Haft is an internationally recognized expert in the field...He has also established a successful pulmonary endarterectomy program. These are challenging procedures and not a trivial undertaking...Jonathan has also taken on an effective national role in health policy...I have always found Dr. Haft to be a true gentlemen. He treats his colleagues with respect and with an uncommon graciousness... There is no doubt that Dr. Haft would be appointed as full Professor at [my institution]."

Summary of Recommendations:

Dr. Haft has established himself as a national and international expert in the field of surgical therapies for cardiac and respiratory failure. He is one of three valuable surgeons that implant ventricular assist devices and performs adult heart transplants at the University of Michigan. I am pleased, therefore, to recommend the promotion of Jonathan W. Haft, M.D. to professor of cardiac surgery, with tenure, Department of Cardiac Surgery, and professor of anesthesiology, without tenure, Department of Anesthesiology, Medical School.

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

Executive Vice President for Medical Affairs

renched A. Kinge

Dean, Medical School