PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF SURGERY

Andrea T. Obi, M.D., assistant professor of surgery, Department of Surgery, Medical School, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.

Academic Degree:

M.D.	2008	Loyola Stritch School of Medicine, Maywood, IL
B.S.	2003	University of Michigan, Ann Arbor, MI

Professional Record:

2017 - Present

Assistant Professor, Department of Surgery, Section of Vascular Surgery, University of Michigan

Summary of Evaluation:

<u>Teaching</u>: Dr. Obi is a dedicated and talented teacher. She has mentored residents, post-doctoral students, medical students, and undergraduate students. She participates as a clinical research mentor in the Department of Surgery SCRUBs intensive summer program for medical students and teaches second year medical students deep vein thrombosis and pulmonary embolism (DVT/PE) management. She provides didactic teaching for students on their surgical rotations and in the Vascular Surgery Center. Dr. Obi was a content expert for the vascular portion of the oral exam handbook for the surgery clerkship, wrote exam questions, and served as an oral examiner. She has provided medical education for vascular specialists at meetings and has been a member of guidelines panels. Teaching evaluations are very good to excellent in all aspects, such as academic, clinical, resident interactions, and personal attributes, comments highlight her interpersonal skills, being a role model, and effective teacher. As a testament to her teaching effectiveness, she was presented with the Greenfield Research Award for mentoring in 2021 and 2023. It is apparent that teaching is an integral part of Dr. Obi's daily activities.

<u>Research:</u> Dr. Obi's research is in the area of vascular disease, and she specializes in immunothrombosis and how to reduce morbidity from deep venous thrombosis (DVT). A significant number of COVID-19 patients developed severe lung disease and venous thrombosis and the connection with the viral infection is still unanswered and is the focus of her NIH K08 career development award as well as several other grants from the American Venous Forum Foundation (AVF), Vascular Cures Wylie Scholar Award, and the Society for Vascular Surgery. Dr. Obi has established herself as an independent researcher currently serving as a multiprincipal investigator or principal investigator on a National Institutes of Health (NIH) K08 award, as well as several industry and foundation grants from Medtronic Inc., Surmodics Inc., and the Society for Vascular Surgery. She is also a mentor on two of her trainee grants, an F32, and a foundation grant. She recently submitted an NIH R01 which received a positive score, and she is resubmitting it now. She has authored 83 peer-reviewed articles in top tier journals such as *Blood*, the *Journal of Vascular Surgery*, and *Phlebology*. She is a sought-after speaker and

has given 57 extramural presentations, an additional nine as moderator, and a keynote lecture nationally and internationally including in Serbia, Italy, and Germany. Dr. Obi has received multiple research awards, including the Association of Academic Surgery Young Investigator Award in 2018, the American Venous Forum Jobst Research Grant in 2019, and the Vascular Cures Wylie Scholar Award in 2019. At the University of Michigan, she received the Lefkofksy Scholar Innovation Fund Award in 2020.

Recent and Significant Publications:

- Obi AT, Sharma SB, Elfline MA, Luke CE, Dowling AR, Cai Q, Kimball AS, Hollinstat M, Stanger L, Moore BB, Jaffer FA, Henke PK, "Experimental venous thrombus resolution is driven by IL-6 mediated monocyte actions," *Sci Rep.* 2023 Feb 24;13(1):3253. doi: 10.1038/s41598-023-30149-2. PMID: 36828892
- Sharma SB, Melvin WJ, Audu CO, Bame M, Rhoads N, Wu W, Kanthi Y, Knight JS, Adili R, Holinstat MA, Wakefield TW, Henke PK, Moore BB, Gallagher KA, Obi AT, "The histone methyltransferase MLL1/KMT2A in monocytes drives coronavirus-associated coagulopathy and inflammation," *Blood.* 2023 Feb 16;141(7):725-742. doi: 10.1182/blood.2022015917. PMID: 36493338
- Sutzko DC, Kim GY, Novak Z, Bamezai S, Beaulieu RJ, Henke PK, Osborne NH, Beck AW, Obi AT, "Use of Direct Oral Anticoagulant and Associated Bleeding and Thrombotic Complication after Lower Extremity Bypass," *J Am Coll Surg.* 2022 Nov 1;235(5):778-786. doi: 10.1097/XCS.00000000000327. Epub 2022 Oct 17. PMID: 36102567
- Klarin D, Busenkell E, Judy R, Lynch J, Levin M, Haessler J, Aragam K, Chaffin M, Haas M, Lindström S, Assimes TL, Huang J, Min Lee K, Shao Q, Huffman JE, Kabrhel C, Huang Y, Sun YV, Vujkovic M, Saleheen D, Miller DR, Reaven P, DuVall S, Boden WE, Pyarajan S, Reiner AP, Trégouët DA, Henke P, Kooperberg C, Gaziano JM, Concato J, Rader DJ, Cho K, Chang KM, Wilson PWF, Smith NL, O'Donnell CJ, Tsao PS, Kathiresan S, Obi A, Damrauer SM, Natarajan P; INVENT Consortium; Veterans Affairs' Million Veteran Program, "Genome-wide association analysis of venous thromboembolism identifies new risk loci and genetic overlap with arterial vascular disease," *Nat Genet*. 2019 Nov;51(11):1574-1579. doi: 10.1038/s41588-019-0519-3. Epub 2019 Nov 1. PMID: 31676865
- Obi AT, Tignanelli CJ, Jacobs BN, Arya S, Park PK, Wakefield TW, Henke PK, Napolitano LM, "Empirical systemic anticoagulation is associated with decreased venous thromboembolism in critically ill influenza A H1N1 acute respiratory distress syndrome patients," J Vasc Surg Venous Lymphat Disord. 2019 May;7(3):317-324. doi: 10.1016/j.jvsv.2018.08.010. Epub 2018 Nov 23. Erratum in: J Vasc Surg Venous Lymphat Disord. 2019 Jul;7(4):621. PMID: 30477976

<u>Service</u>: Dr. Obi has an excellent service record at all levels. She is an active physician and vascular surgeon whose work involves the breadth of venous disease. Internationally, she served on the global advisory board for the largest device company in the venous disease space. She is a member of the Union Internationale de Phlebologies (UIP) Science Committee, the largest international venous organization in the world, whose mission is to promote the science of phlebology for the benefit of patients worldwide. Nationally, she is the chair of the Research Committee of the American Venous Forum, expert representative for the American College of Radiology Committee on Appropriateness, on the board of directors for the Intersocietal

Accreditation Commission for the Society for Clinical Vascular Surgery Representative, and serves on the Society for Vascular Surgery's Basic and Translational Research Committee. She is an ad hoc study section reviewer for the Department of Defense Medical Research Program Clinical Trial – Diabetes Study Section and the American Heart Association. She is an abstract reviewer for two national societies. She is on the editorial board of the *Journal of Vascular Surgery Venous and Lymphatics Vascular Medicine*, is an associate editor for the *Journal of Vascular Medicine*, and serves as an ad hoc reviewer for many high impact journals including the *New England Journal of Medicine* and *JAMA Surgery*. Institutionally, she co-directs the Multidisciplinary Venous Health Program, is the Medical Director of the Diagnostic Vascular Unit, and co-chairs the Venous Thromboembolism (VTE) Committee in her department.

External Reviewers:

Reviewer A: "Dr. Obi is an extraordinary clinician. This has clearly translated into expertise in funded translational science. Specifically, she is an expert in thrombosis and venous thromboembolism. With 82 peer-reviewed manuscripts, 7 reviews, 27 book chapters, 120 abstracts, a technical video and many other types of contributions her impact has been weighty and sustained early in her career. The quality of her work is exceptional evidenced by her invitation as an expert panelist before the NIH panel on COVID coagulopathy and ever growing list of invited lectureships across the globe. Her h-index is already 26 and her manuscripts appear across high-impact journals from those specific to thrombosis to Nature, JCI and JAMA journals. She values team science and has several multi-institutional cross-discipline works."

Reviewer B: "Dr. Obi is quite involved in the academic vascular community. She serves as a reviewer for a number of journals and serves as an editorial board member of the Journal of Vascular Surgery-Venous and Lymphatics and as an Associate Editor for the Journal of Vascular Medicine. She is an active member in a number of surgical and vascular surgical societies; and she is involved serving on multiple different committees that are available through those organizations. It will not be surprising when she begins to take on leadership roles on these committees and in the executive components of these societies."

Reviewer C: "Her research success has allowed her to gain funding from several national foundations and industry sponsors. She currently holds an NIH KO8 grant related to myeloid TLR4 regulation in venous thrombosis. Additionally, she has received awards from the Vascular Cures Foundation and the American Venous Forum Foundation, as well as industry-sponsorship from Boston Scientific, Medtronic, and Surmodics Inc. Overall, Dr. Obi's contributions have demonstrated high quality and rigor, positioning her at the top of her peer group of vascular surgeons engaged in basic science investigation."

Reviewer D: "Her service contributions to the Department, to her professional societies is sustained and I will consider them at 'above expected' norm. Dr. Obi's work has been widely disseminated in several outlets, which include presentations at [sic] national, international meetings, in [the] form of posters, peer reviewed publications, sixty full length peer reviewed manuscripts, twenty book chapters. These publications are in journals with a high impact factor...Several of her publications add value and move the needle in our understanding and management of this pathology."

Reviewer E: "With regard to Dr. Obi's contributions to vascular surgery, she has been a prominent, regular contributor to the discipline and a national leader. In her peer group, I would rank her among the top five nationally in her field."

Summary of Recommendations:

Dr. Obi is a highly meritorious vascular surgeon, accomplished educator, and productive institutional citizen. She is truly a rising star, and the University of Michigan will unquestionably benefit from her continued success as a member of the Vascular Surgery faculty. I am pleased to recommend Andrea T. Obi, M.D. for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.

Marwel S. Runge

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

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