Approved by the Regents
May 16, 2019

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF EMERGENCY MEDICINE

Frederick K. Korley, M.D., Ph.D. assistant professor of emergency medicine, Department of Emergency Medicine, is recommended for appointment as associate professor of emergency medicine, with tenure, Department of Emergency Medicine, Medical School.

Academic Degrees:

Ph.D.	2013	Johns Hopkins University
M.D.	2003	Northwestern University
B.Sc.	1999	Morris Brown College

Professional Record:

2016 – Present	Assistant Professor of Emergency Medicine, University of Michigan
2007 – 2015	Assistant Professor of Emergency Medicine, Johns Hopkins University
2007 – 2012	Robert E. Meyerhoff Assistant Professor, Johns Hopkins University

Summary of Evaluations:

Teaching: Dr. Korley's primary teaching responsibility is when he works clinically in the Emergency Department where he supervises residents, medical students and fellows. He received the Research Achievement for Instructional Track Junior Faculty Award from the Department of Emergency Medicine at Johns Hopkins University. He lectures nationally on numerous topics, including Blood-Based Biomarkers of Traumatic Brain Injury, Diagnosing Cardiac Injury in the High Sensitivity Tropinin Era, and a Blood Test Tell Us Who Will Need a Craniotomy. Dr. Korley is a faculty mentor for the clinical reasoning elective course. He presents lectures to the Get Healthy Together Program, which is a health education program for community members in Washtenaw County. He has mentored one fellow and two faculty members.

Research: Dr. Korley's research focuses on acute diagnosis, risk-stratification and treatment of traumatic brain injury. He has been well-funded for his research from the NIH, the Robert Wood Johnson Foundation, and the National Institutes of Neurological Diseases and Stroke. Dr. Korley has published 53 peer-reviewed articles and has significantly impacted the specialty of emergency medicine, acute cardiac care and traumatic brain injury. His research has focused on early diagnostics in patients with cardiac and neurological emergencies, including the development and testing of disease biomarkers. Dr. Korley was the first investigator to publish on the diagnostic accuracy of high sensitivity troponin in emergency department care and is considered a national expert in high sensitivity troponin, with subsequent publications in a number of high impact journals. He has played a key role in identification of biomarkers associated with outcomes in patients with traumatic brain injury. Dr. Korley was the principal investigator on the HeadSMART study that enrolled over 500 emergency department patients with a six month follow up, and has been an integral investigator in the Transforming Research and Clinical Knowledge in TBI (TRACK TBI) project funded by NINDS. TRACK-TBI is a multi-institutional, multidisciplinary prospective observational study of TBI patients in 18 academic medical centers and Dr. Korley has played a key role in the collection and evaluation of biomarkers in this project, and received a diversity supplement on this grant. In recognition of his expertise, he was invited to join the TBI Endpoints Development (TED) Initiative, supported by the Department of Defense in 2014. His work examining the use of high sensitivity troponin for diagnosing acute cardiac injury was selected by the

Journal of Academic Emergency Medicine as the article of the month of July 2014 to be read for Continuing Medical Education (CME) credit. Furthermore, his work in the discovery and validation of traumatic brain injury biomarkers has laid the foundation for ongoing work that will result in biomarker-guided personalization of traumatic brain injury treatment. Dr. Korley has been invited to present his research on 11 occasions regionally and nationally.

Recent and Significant Publications:

Korley F, Nikolian V, Williams A, Dennahy I, Weykamp M, Alam H: Valproic Acid Treatment Decreases Serum GFAP and UCH-L1 Level in Swine Subjected to Traumatic Brain Injury. *J Neurotrauma* 35(10):1185-1191, 2018.

Peters M, Rao V, Bechtold K, Roy D, Sair H, Leoutsakos J, Diaz-Arrastia R, Stevens R, Batty D, Falk H, Fernandez C, Ofoche U, Vassila A, Hall A, Anderson B, Bessman E, Lyketsos C, Everett A, Eyk J, Korley F: Head injury serum markers for assessing response to trauma: Design of the HeadSMART study. *Brain Inj Online*: 1-9, 2017.

Metkus T, Guallar E, Sokoll L, Morrow D, Tomaselli G, Brower R, Schulman S, Korley F: Prevalence and Prognostic Association of Circulating Troponin in the Acute Respiratory Distress Syndrome. *Crit Care Med,* 45(10):1709-1717, 2017.

Korley F, Diaz-Arrastia R, Wu A, Yue J, Manley G, Sair H, Van Eyk J, Everett A, Okonkwo D, Valadka A, Gordon W, Maas A, Mukherjee P, Yuh E, Lingsma H, Puccio A, Schnyer D: Circulating Brain-Derived Neurotrophic Factor has Diagnostic and Prognostic Value in Traumatic Brain Injury. *J Neurotrauma* 33(2):215-25, 2016.

Korley F, Kelen G, Jones C, Diaz-Arrastia R: Emergency Department Evaluation of Traumatic Brain Injury in the United States, 2009-2010. *J Head Trauma Rehabil*, 2015.

Service: Dr. Korely is a reviewer 12 journals, including the *Journal of the American Medical Association*, *Circulation*, and *BMC Emergency Medicine*. He is an active member of the American College of Emergency Physicians, the Society for Academic Emergency Medicine, and the National Neurotrauma Society. Nationally, Dr. Korley is an executive committee member of the National Medical Association and has served as a member of the Research Committee for the Society of Academic Emergency Medicine.

External Reviewers:

Reviewer A: "Dr. Korley has charted a focused and determined path in translational and clinical science that is so critical in our discipline and as such he represents a superb example of what we hope for in future generations of academic leaders…I believe Dr. Korley represents the phenotype of a hard-working, committed academic physician scientist, who will continue to contribute to the University of Michigan enterprise in meaningful ways if promoted within the faculty ranks."

Reviewer B: "Dr. Korley's research has had a significant impact on the field of emergency research…Dr. Korley has garnered considerable grant support for these research interests…Fred has delivered multiple TBI biomarker-related presentations at the state and national levels."

Reviewer C: "He is developing a successful research career and he has proven his capability to compete for federal grants. He is beyond his peer group who are working in this field…He would meet the requirements for promotion to Associate Professor within the [my institution] system."

Reviewer D: "Fred is an outstanding junior faculty investigator who is developing into a highly accomplished clinician-scientist with a line of novel research focused on biomarker of brain injury that would have significant translational impact…On the basis of his merits, Fred would undoubtedly achieve promotion to the same rank were he faculty at [my institution]."

Reviewer E: "Dr. Korley has demonstrated excellence in the area of acute diagnosis, risk stratification and treatment of traumatic brain injury (TBI) and acute coronary syndrome (ACS) and has already begun to develop a national reputation in these areas…Dr. Korley's work has great potential to improve the care and recognition of those at most risk for a poor outcome…Dr. Korley would most certainly be promoted to associate professor of emergency medicine at [my institution]."

Reviewer F: "I would estimate that Dr. Korley's academic output is superior to those in his peer group who are working in the same field…Dr. Korley has a highly productive research publication record with focused impact. He has been able to maintain sustained extramural grant support for his research. His work has been recognized by invitations to lecture at external institutions…I believe that Dr. Korley would meet criteria for promotion to Associate Professor at my institution."

Summary of Recommendations:
Dr. Korley is a very prominent and productive scientist and clinician who continues to make significant contributions to the field of emergency medicine through his research and teaching. He is an active contributor to his field through service with national societies. I am pleased, therefore, to recommend the promotion of Frederick K. Korley, M.D., Ph.D. to associate professor of emergency medicine, with tenure, Department of Emergency Medicine, Medical School.

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

May 2019