

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

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

Academic Degrees:

Ph.D.	2013	Johns Hopkins Bloomberg School of Public Health
M.D.	2003	Northwestern University Feinberg School of Medicine
B.Sc.	1999	Morris Brown College

Professional Record:

2019-present	Associate Professor of Emergency Medicine, with tenure, University of Michigan
2016-2019	Assistant Professor of Emergency Medicine, University of Michigan
2012-2015	Assistant Professor of Emergency Medicine, Johns Hopkins University
2007-2012	Robert E Meyerhoff Assistant Professor, Johns Hopkins University

Summary of Evaluation:

Teaching: Dr. Korley is a dedicated and talented teacher. He has been a mentor to several graduate students, residents, and faculty members throughout his career here at the university and has been a regular lecturer to the Department of Emergency Medicine residents. He has served on two dissertation committees, previously as a committee member and currently as the chair of the committee. On a national level, he participated in the National Institute of Neurological Disorders and Stroke (NINDS) Clinical Trials Methodology Course from 2019-2021, teaching both trainees and faculty. Since 2017, he has taught the Clinical Reasoning Elective institutionally.

Research: Dr. Korley's research interests focus on the diagnosis, risk stratification, and treatment of traumatic brain injury. Dr. Korley has developed and validated diagnostics for evaluating acute traumatic brain injury, specifically through the study of how blood-based biomarkers of brain injury can be leveraged to improve the diagnosis, prognostication, and treatment of traumatic brain injury. He has also developed novel therapeutics for traumatic brain injury, including the use of hyperbaric oxygen therapy. Dr. Korley's research has led to 90 publications and two patents for blood-based biomarkers of traumatic brain injury. He has been consistently funded throughout his time here at the University of Michigan. He is the co-principal investigator on a National Institute of Neurological Disorders and Stroke (NINDS) U01 grant, where he oversees the day-to-day operations of the trial and serves as the lead for the weekly trial discussions with the study team. He is also the co-principal investigator on an R61 National Institutes of Health grant, where he plans experiments, reviews data, and helps interpret results. He is the principal investigator on several grants, including from the Department of Defense grants, the National Institutes of Health, and a Department of Defense consortium grant with the University of Pennsylvania. He is also the site principal investigator for the University of Michigan Department of Defense consortium grant with the University of California, and the co-investigator on a Department of Defense grant. Dr. Korley's research has been recognized by the Society of Academic Emergency Medicine, garnering him with the 2021 Society of Academic Emergency Medicine Mid-Career Investigator Award.

Recent and Significant Publications:

Korley FK, Jain S, Sun X, Puccio AM, Yue JK, Gardner R, Wang KK, Okonkwo DO, Yuh EL, Mukherjee P, Nelson L, Taylor SR, Markowitz AJ, Diaz-Arrastia R, Manley GT, and the TRACK-TBI

- investigators, “Prognostic value of day-of-injury plasma GFAP and UCH-L1 concentrations for predicting functional recovery after traumatic brain injury in patients from the US TRACK-TBI cohort: an observational cohort study,” *The Lancet Neurology* 21(9): 803-813, 2022. PM35963263.
- Korley FK, Durkalski-Mauldin V, Yeatts SD, Schulman K, Davenport RD, Dumont LJ, El Kassab N, Foster LD, Hah JM, Jaiswal S, Kaplan A, Lowell E, McDyer JF, Quinn J, Triulzi DJ, Van Huysen C, Stevenson VLW, Yadav K, Jones CW, Kea B, Burnett A, Reynolds JC, Greineder CF, Haas NL, Beiser DG, Silbergleit R, Barsan W, Callaway CW, SIREN-C3PO Investigators, “Early Convalescent Plasma for HighRisk Outpatients with Covid-19,” *N Engl J Med* 385(21): 1951-1960, 2021. PM34407339/PMC8385553.
- Falk H, Bechtold K, Peters M, Roy D, Rao V, Lavieri MS, Sair HI, Van Meter TE, Korley FK, “A Prognostic Model for Predicting 1-Month Outcomes Among Emergency Department Patients With Mild Traumatic Brain Injury and a Presenting Glasgow Coma Scale of 15,” *J Neurotrauma* 38(19): 2714-2722, 2021. PM33957761.
- Korley FK, Goldstick J, Mastali M, Van Eyk JE, Barsan W, Meurer WJ, Sussman J, Falk H, Levine D, “Serum NfL (Neurofilament Light Chain) Levels and Incident Stroke in Adults With Diabetes Mellitus,” *Stroke* 50(7): 1669-1675, 2019. PM31138085.
- Yue JK, Yuh EL, Korley FK, Winkler EA, Sun X, Puffer RC, Deng H, Choy W, Chandra A, Taylor SR, Ferguson AR, Huie JR, Rabinowitz M, Puccio AM, Mukherjee P, Vassar MJ, Wang KKW, Diaz-Arrastia R, Okonkwo DO, Jain S, Manley GT, TRACK-TBI Investigators, “Association between plasma GFAP concentrations and MRI abnormalities in patients with CT-negative traumatic brain injury in the TRACKTBI cohort: a prospective multicentre study,” *Lancet Neurol* 18(10): 953-961, 2019. PM31451409.

Service: Dr. Korley is a dedicated clinician who provides patient care in the adult emergency department, applying research principles to the area of patient care to improve outcomes and treatment options. In addition to his busy clinical schedule, he has held several positions on national committees, most notably being chosen this year as an inaugural member of the National Academy of Science, Engineering, and Medicine Forum on Traumatic Brain Injury. Dr. Korley also serves on the American College of Surgeons Traumatic Brain Injury Best Practices Guidelines Group and the National Institute of Neurological and Communicative Disorders and Stroke (NINDS) Traumatic Brain Injury Biospecimen Resource Access Committee (BRAC). He serves on several national study sections, including the National Institutes of Health Neurological Sciences and Disorders study section. Institutionally, he serves on the COVID-19 Fund to Retain Clinical Scientists (FRCS) study section. In addition to these committees and study sections, Dr. Korley was also appointed as the Massy Traumatic Brain Injury Grand Challenge Scientific director in 2022.

External Reviewers:

Reviewer A: “His CV shows a progression of greater success on larger NIH grants, and a very interesting focus on oxygen related brain activities as a means of intervening in sever[e] brain injuries. Further, he also has an exciting line of research related to brain injuries sustained by a stroke. He also has a novel line of research that continues to develop based on utilization of fluid biomarkers for the improved treatment of brain injuries, as well as a very good publication history related to this research. Few investigators are focused on these more severe injuries, so this provide[s] a greater depth of understanding about injury mechanisms and clinical translation.”

Reviewer B: “Regarding teaching, Dr. Korley, since his last promotion three years ago, has served as a mentor to two graduate students, one medical student, one postdoctoral fellow, and six residents. He has also served as an instructor on the NINDS Clinical Trials Methodology Course. Of note, Dr. Korley has served as a senior author on 13 of his publications. Based on my own interactions with Dr. Korley, I have no doubt that he is a highly sought-after mentor and that he excels as both a research and clinical mentor.

From a national perspective, Dr. Korley has also given 21 invited lectures at major academic institutions, including 10 since his last promotion.”

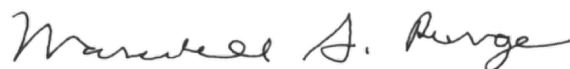
Reviewer C: “Dr. Korley has a strong and growing portfolio of service to his department, institution, and profession. He served as the Director of Simulation Education while at Hopkins, and he currently is involved in a TBI Grand Challenge Program. He is a member of an NIH study section, a member of many professional societies, and is a reviewer for many high impact journals. He has received a number of awards that recognize his contributions.”

Reviewer D: “In the area of service, Dr. Korley has served in several roles at the local, regional and national levels. At the University of Michigan, he serves on the Faculty Council, the Faculty Recruitment Committee, the Promotions and Tenure Committee for the Department of Emergency Medicine, the Faculty Senate, and as a member of a Neurosurgery Chair Search Committee. His service to the specialty of Emergency Medicine and the overall discipline of science has also been outstanding. He is currently a journal reviewer for 12 scientific journals.”

Reviewer E: “Since his tenure was approved in 2019, Fred has over 25 peer-reviewed publications either as a first, co- or senior author. In addition, he has contributed to a book on TBI and biomarkers. This is an impressive accomplishment considering that he has clinical responsibilities. An important criterion for promotion to Professor is standing in the field, which is reflected by the invitation to speak at institutions; Fred has given at least 10 such presentations to the DoD, University of Pittsburgh, University of Washington and the NIH, to name a few. His current h-index is 27 which is impressive in its own right. Perhaps the most impactful accomplishment is his grant funding – he is the PI on an impressive 3 R01/R61 grants and I can see that he has been able to successfully convert R21 and fellowship funding to more sustainable R grants.”

Summary of Recommendation:

Dr. Korley is an outstanding physician-scientist who has made significant contributions to research, teaching, scholarship, and service. He has developed and validated diagnostics for evaluating acute traumatic brain injury, specifically through the study of how blood-based biomarkers of brain injury can be leveraged to improve the diagnosis, prognostication, and treatment of traumatic brain injury. His success and productivity since his promotion to associate professor in 2019 are remarkable and justify this promotion request. Therefore, I am pleased to recommend Frederick K. Korley, M.D., Ph.D. for promotion to professor of emergency medicine, with tenure, Department of Emergency Medicine, Michigan Medical School.



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

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