PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF ANESTHESIOLOGY DEPARTMENT OF PSYCHIATRY SCHOOL OF PUBLIC HEALTH DEPARTMENT OF EPIDEMIOLOGY

<u>Amy Bohnert, Ph.D.</u>, associate professor of anesthesiology, with tenure, Department of Anesthesiology, associate professor of psychiatry, without tenure, Department of Psychiatry, Medical School, and associate professor of epidemiology, without tenure, School of Public Health, is recommended for promotion to professor of anesthesiology, with tenure, Department of Anesthesiology, and to professor of psychiatry, without tenure, Department of Psychiatry, Medical School, and to professor of epidemiology, without tenure, School of Public Health.

Academic Degrees

Ph.D.	2008	Johns Hopkins University
M.H.S.	2005	Johns Hopkins University
B.A.	2002	University of Maryland

Professional Record

2020-present	Associate Professor of Anesthesiology, University of Michigan
2016-present	Associate Professor of Psychiatry, University of Michigan
2010-2016	Assistant Professor of Psychiatry, University of Michigan

Summary of Evaluation:

<u>Teaching</u>: Dr. Bohnert focuses on the mentoring of early career faculty. She has mentored seven faculty members in the last four years with career development grants being awarded to all of these mentees. Her goal is to increase the pipeline of women and minorities moving into leadership positions within academic medicine, which is central to the departmental mission. She has also mentored undergraduates and medical students in her research laboratory, and co-mentored a University of Michigan epidemiology Ph.D. student. In terms of didactic teaching, Dr. Bohnert provides institutional lectures on opioid safety and addiction and co-led a medical student intersession class on these topics. She lectures nationally on the focus of her research in health services.

<u>Research</u>: Dr. Bohnert is a health services researcher whose studies provide timely answers for pressing questions related to opioid safety, mental health, and addiction. Her research methods take the form of epidemiologic studies using health records and other registry data, as well as pragmatic clinical trials. She has published 127 peer-reviewed articles, and has been invited to present her research on 26 occasions through seminars, association meetings and community outreach. Dr. Bohnert is well-funded through the National Institutes of Health, Blue Cross, Blue Shield of Michigan, the Michigan Department of Health and Human Services, the Veterans Administration and institutionally. Her research began with studies on the association between specific prescribing patterns and risk of adverse outcomes, particularly overdose and suicide, in national patient populations. These studies were published in high impact journals and have gone on to influence prescribing guidelines, clinical programs, and policies. Dr. Bohnert has expanded her work into two new areas, including understanding policies and interventions that can address the substantial gaps in access to medications for opioid use disorders. A related part of this work has been to develop and test interventions that address opioid use problems that fall below the threshold of opioid use disorder. Her clinical trials in this area include innovative applications of machine learning and elements of

implementation science intended to speed translation to clinical practice. She has taken on scientific leadership positions in the Precision Health Program. This work builds off of her expertise in recruitment and in mobile health interventions. Her most recent funding in this area will result in a large mental health cohort study with robust data sources from patient reports, medical records, and wearable sensors. Across all three domains, she uses innovative mobile health technology to leverage a variety of study designs with the goal of conducting research that is readily translatable to clinical practice and policy.

Recent and Significant Publications:

Bohnert ASB & Ilgen MA: Understanding links among opioid use, overdose, and suicide. *New England Journal of Medicine* 380(1): 71-79, 2019.

Bohnert ASB, Guy GP Jr, Losby JL: Opioid prescribing in the United States before and after the Centers for Disease Control and Prevention's 2016 Opioid Guideline. *Annals of Internal Medicine*, 169(6): 367-375, 2018.

Brummett CM, Waljee JF, Goesling J, Moser S, Lin P, Englesbe MJ, Bohnert ASB, Kheterpal S, Nallamothu BK: New Persistent Opioid Use After Minor and Major Surgical Procedures in US Adults. *JAMA Surgery* 152(6): e170504, 2017.

Bohnert ASB, Bonar EE, Cunningham R, Greenwald MK, Thomas L, Chermack S, Blow FC, Walton M: A pilot randomized clinical trial of an intervention to reduce overdose risk behaviors among emergency department patients at risk for prescription opioid overdose. *Drug Alcohol Depend* 163: 40-7, 2016.

Park TW, Saitz R, Ganoczy D, Ilgen MA, Bohnert ASB: Benzodiazepine prescribing patterns and deaths from drug overdose among US veterans receiving opioid analgesics: Case-cohort study. *BMJ* 350: h2698, 2015.

<u>Service</u>: Dr. Bohnert is the co-director of the Mental Health Innovation, Services, and Outcomes Program. This program bridges the Veterans Affairs Ann Arbor Health System research and development and Michigan Medicine leadership activities. She is the principal investigator of the Michigan Opioid Collaborative, which is funded by the Substance Abuse and Mental Health Services Administration in partnership with the Michigan Department of Health and Human Services. This program provides clinical training and technical assistance to any opioid prescriber in the State of Michigan. Dr. Bohnert oversees the planned training for clinicians. The program has had substantial impact on the clinical workforce, supporting more than 370 prescribers throughout Michigan to begin prescribing medications for opioid use disorder. She is a peer reviewer for the NIH and VAAAHS study sections. She is an associate editor for *Addiction*, serves on numerous institutional committees and provides scientific consultation to the State of Michigan Governor's Prescription Drug and Opioid Abuse Task Force.

External Reviewers:

<u>Reviewer A:</u> "She has been a leader in the field of opioid prescribing and addiction, and has published extensively on other topics as well including suicide, overdose, and the intersection of mental health problems and pain in high-impact journals that cut across specialty boundaries."

<u>Reviewer B</u>: "My impression of her work can be summarized as follows: (1) very high quality methods; (2) high level of clinical relevance; and (3) generally extends the core knowledge base versus replicating previously reported findings."

<u>Reviewer C</u>: "Her grant funding is frankly enviable...with current grants approaching \$30 million dollars and past grants collectively totaling roughly the same. That she is so successful in securing funds for her research from the NIH, VA and other agencies is a clear testament to her capabilities as a researcher...It not hyperbole to state that her contributions in this area [prescribing and associated outcomes] particularly regarding opioid safety, rival those of any researcher in the world."

<u>Reviewer D</u>: "Dr. Bonhert is a nationally recognized expert in the complex interactions between pain management, opioid use and misuse, overdose, suicide, and death. Her expertise and intellectual rigor has moved this critical area of inquiry and policy forward...Finally, I note that Dr. Bohnert would easily meet and exceed the requirements for an equivalent academic action at [my institution]."

<u>Reviewer E</u>: "Dr. Bohnert and her team have been prolific, and there are many outstanding contributions among her publications...Dr. Bohnert is easily within the top 5-10% of investigators working in the area where substance use disorder and public policy meet...Her work is superior to many at the professorial level, again by its sheer volume it is impressive...I have served on the Subcommittee on Professors for [my institution] and believe that Dr. Bohnert's accomplishments would meet the requirements for promotion to the rank of Professor at this institution."

Summary of Recommendation:

Dr. Bohnert has made an enormous impact on the management of opioid prescribing, opioid use disorder treatment and the prevention of overdose and mortality related to opioid prescribing. Her research is well-funded and she is an excellent mentor. I am pleased to recommend Amy Bohnert, Ph.D. for promotion to professor of anesthesiology, with tenure, Department of Anesthesiology, and professor of psychiatry, without tenure, Department of Psychiatry, Medical School.

andel A.

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

F. DuBois Bowman, Ph.D. Dean, School of Public Health