

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PSYCHIATRY

Approved by the
Regents
May 21, 2015

Srijan Sen, M.D., Ph.D., assistant professor of psychiatry, Department of Psychiatry, Medical School, is recommended for promotion to associate professor of psychiatry, with tenure, Department of Psychiatry, Medical School [also being promoted to research associate professor in the Molecular and Behavioral Neuroscience Institute].

Academic Degrees:

M.D./Ph.D.	2005	University of Michigan
B.A.	1997	Cornell University

Professional Record:

2014-present	Research Assistant Professor, MBNI, University of Michigan
2009-present	Assistant Professor of Psychiatry, University of Michigan

Summary of Evaluation:

Teaching: Dr. Sen contributes to our educational programs as a core curriculum lecturer, supervisor, and mentor to residents and medical students. He also serves on doctoral thesis committees. An important component of his teaching activity includes supervision and instruction in his research group. With research trainees, his focus is on fostering critical independent thinking in evaluating the literature and teaching how to develop and test hypotheses. Despite heading a research group for only a short time, investigators in the group have already published seven first author publications for which Dr. Sen has served as senior author, including several in high-impact journals. Dr. Sen also teaches extensively in the clinical domain. He conducts weekly supervision sessions with psychiatry residents and works with residents and medical students in a weekly Depression Clinic. In these venues, his focus is on teaching effective psychiatric interviewing and evidence-based decision making. The quality of his clinical teaching is evidenced by strong evaluations. He has also worked with the Medical School to build and shape the Medical School Mistreatment website, a valuable mechanism that allows students to anonymously report incidents of mistreatment and help to create a safer and more educational learning environment.

Research: Since Dr. Sen joined the faculty at Michigan, his research group has been continuously funded by grants, initially through an American Foundation for Suicide Prevention Young Investigator Grant and a MICHR KL2 Career Development Award. Subsequently, he received internal University of Michigan funding through a MICHR Pilot Grant, a Cardiovascular Center McKay Award and the inaugural Oscar Stern Grant from the UM Depression Center. His current research is funded through a Collaborative Multi-CTSA Grant through the National Center for Research Resources; a K23 Career Development Award, and a new R01 Research Grant, the last two from the National Institute for Mental Health. He was also recently selected as one of twelve emerging scholars at UMHS to receive funding through the Alfred A. Taubman Medical Institute. Dr. Sen's research focus is on furthering our understanding of the biological basis underlying stress response and depression, with the ultimate goal of improving the lives of patients. At present, much of his work builds on a prospective longitudinal study of stress and depression during medical

internship, including over 7,000 interns from 26 institutions. His research has played a key role in identifying specific genes involved in depression under stress, blood biomarkers of depression, the nature of depressive symptoms under stress and the effects of stress and depression during medical education. Dr. Sen is the author of 29 peer-reviewed publications, most in high impact journals including *JAMA Psychiatry*, *JAMA Internal Medicine*, *Biological Psychiatry*, *Archives of Internal Medicine* and *Molecular Psychiatry*. He was first or senior author on 21 publications. The impact of the papers on the scientific community is evidenced by their high citation rate, with five papers garnering more than 250 citations and an average citation rate of 86. These papers have also garnered interest beyond academia, with five publications receiving wide press coverage, in outlets such as *Time* magazine, *New York Times* and CBS This Morning. He serves as the genetics field editor for *Acta Psychiatrica Scandinavica* and reviews manuscripts for numerous prestigious journals including *Science* and *JAMA*. He has served as an early career reviewer on the NIH BGEN study section and has reviewed grants for other funding agencies. Dr. Sen has earned membership into the American College of Neuropsychopharmacology and the Psychiatry Research Society, honors bestowed on a highly select group of investigators.

Recent and Significant Publications:

Sen S, Kranzler HK, Chan G, Speller H, Krystal JH, Gelernter J, Guille C: Prospective cohort study investigating factors associated with depression during medical internship. *Archives of General Psychiatry* 67:557-565, 2010.

Karg K, Shedden K, Burmeister M, Sen S: Serotonin transporter promoter variant (5-HTTLPR), stress, and depression meta-analysis revisited: Evidence of genetic moderation. *Archives of General Psychiatry* 68:444-454, 2011.

Guille C, Sen S: Prescription drug use and self-prescription among training physicians. *Archives of Internal Medicine* 172:371-372, 2012.

Sen S, Kranzler HK, Didwania AK, Schwartz AC, Amarnath S, Kolars JC, Dalack GW, Nichols B, Guille C: Effects of the 2011 duty hour reforms on interns and their patients: A prospective longitudinal cohort study. *JAMA Internal Medicine*. 173:657-662, 2013.

Guille C, Clark S, Amstadter A, Sen S: Trajectories of depressive symptoms in response to prolonged stress in medical interns. *Acta Psychiatrica Scandinavica* 129:109-115, 2014.

Service: Dr. Sen is an attending psychiatrist in ambulatory psychiatry. In 2013, he was appointed as assistant director of the House Officer Mental Health Program. His clinical activities also include the National Football League Players Association Mental Health Program. Together with another colleague, Dr. Sen started the Department of Psychiatry's Early Career Faculty Council where he serves as a co-chair. Members receive peer mentorship, disseminate information and foster scientific collaborations between junior faculty members. For example, a session was devoted to putting together an NIH/VA Career Development Award application. The group has facilitated promising collaborations and brought important issues important to early career faculty to the attention of departmental leadership. Dr. Sen has served on the department's Research Council since 2010. Nationally, he served on the Scientific Program Committee of the American Psychiatric Association.

External Reviewers:

Reviewer A: "...Dr. Sen has made several seminal contributions to the field. Especially the meta-analysis on the 5-HTTLPR in gene x environment interactions has had enormous impact in the field of psychiatric genetics. Here, he elegantly laid out the concept that environment matters in GxE and that type and timing of stress exposure are important factors to consider in these analyses. With the experimental support of this idea by meta-analytic data, he has strongly influenced the field and also laid the ground for more controlled and rational designs of GxE studies, and especially for independent replication strategies. For this he can certainly be seen as one of the leaders in the GxE field of psychiatry."

Reviewer B: "Dr. Sen is an outstanding psychiatric researcher, one of the best of his generation...Dr. Sen is going places. What we have seen is clearly just the beginning of a productive and important career...He is at the top of the game in genetics...Dr. Sen's work is already anticipating the next wave of research efforts: Identifying variants that condition the response to environmental pathogens that impact psychiatric disorders (such as stress). I predict that Dr. Sen will emerge as the leader of this field."

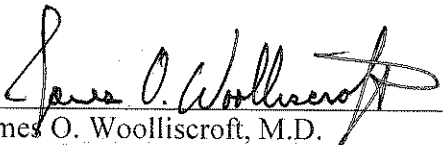
Reviewer C: "...his loyalty to the international scientific community is documented by reviewer-
ships with more than 25 international peer-reviewed journals...all among the very highest ranking journals within their ISI sections."

Reviewer D: "I have been impressed by his ability to analyze problems strategically and particularly by the creativity and quality of his work. He is one of the rising stars in psychiatric research and I believe he is eminently qualified for this promotion...His work is first rate and the interdisciplinary nature of it is quite apparent."

Reviewer E: "The most novel of his work is to use medical internship as a natural experiment. He developed this idea while a fellow at Yale, expanded his skills through a NIMH training award and now has a five year NIMH grant to further his study. He has made natural and steady progression."

Summary of Recommendation:

Dr. Sen has excelled in clinical, scientific, and professional accomplishments in research and teaching. He is a highly productive clinical scientist, who is a future leader in the field of psychiatric genetics and genomics. His work has enormous potential both to yield novel insights into our understanding of the complex gene and environment interactions in psychiatric illness and to influence the training of physicians and practice of medicine. I enthusiastically recommend Srijan Sen, M.D., Ph.D. for promotion to associate professor of psychiatry, with tenure, Department of Psychiatry, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2015