Approved by the Regents May 15, 2014

PROMOTION RECOMMENDATION UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF ANESTHESIOLOGY DEPARTMENT OF INTERNAL MEDICINE

<u>Richard E. Harris, Ph.D.</u>, assistant professor of anesthesiology, Department of Anesthesiology, and assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of anesthesiology, with tenure, Department of Anesthesiology, and associate professor of internal medicine, without tenure, Department of Internal Medicine, Medical School.

<u>Academic Degrees:</u>

| M.S. | 2005 | University of Michigan |
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| Ph.D. | 1997 | University of California, Berkeley |
| B.S. | 1992 | Purdue University |

Professional Record:

| 2010-present | Assistant Professor of Anesthesiology and Assistant Professor of Internal | | |
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| | Medicine, University of Michigan | | |
| 2008-2010 | Research Assistant Professor of Anesthesiology, University of Michigan | | |
| 2007-2010 | Research Assistant Professor of Internal Medicine, University of Michigan | | |
| 2002-2007 | Research Investigator, Department of Internal Medicine, University of | | |
| | Michigan | | |
| 2000-2002 | Instructor and Research Assistant, Department of Rheumatology, | | |
| | Georgetown University | | |

Summary of Evaluation:

<u>Teaching</u>: Dr. Harris is an active educator at the University of Michigan and beyond. He gives monthly lectures to residents in the Department of Anesthesiology, and is also a recent faculty member of the Neuroscience Graduate Program. Dr. Harris has presented at numerous journal club programs, invited didactic lectures, as well as grand rounds within the university. In addition to didactic lectures, Dr. Harris has trained undergraduates, medical students, graduate students, and junior faculty in aspects of chronic pain, neuroimaging, and alternative medicine. He is currently working as part of a team to develop an introductory didactic course devoted to pain assessment, measurement, and treatment for undergraduates at the university.

Research: Dr. Harris has demonstrated excellence in basic, translational, and clinical neuroscience research in relationship to chronic pain and its treatment. He is internationally recognized as an eminent scholar in two fields: alternative medicine and acupuncture, and using neuroimaging to identify the mechanisms that underlie chronic pain states. He has published more than 45 peer-reviewed articles and four book chapters in major textbooks (Elsevier and Oxford University Press) in his fields of expertise. His work has been published extensively in journals specific to musculoskeletal pain (*Arthritis and Rheumatism*) and alternative medicine

(Journal of Alternative and Complementary Medicine) but also in general neurobiological journals including the Journal of Neuroscience. Dr. Harris has funded his work entirely through nationally competitive grant awards. He obtained a K01 grant with Dr. Clauw as his primary mentor while he was at Georgetown, and moved along with this award to Michigan in 2002. While still on the K award he became the PI of a Department of Defense grant to identify neuroimaging biomarkers of chronic pain in fibromyalgia. During this time, he also received a highly competitive national Dana Foundation grant to further explore the role of the insula, a specific brain region, in pain and depression. He has more recently become the principal investigator of two NIH R01 grants as well: one to examine the role of self-administered acupressure to alleviate persistent fatigue in breast cancer survivors (\$1,750,000 total costs; awarded in 2010) and a second one to examine the role of somatosensory afferents in acupuncture therapy (\$2,650,000 total costs; awarded in 2013). There are many individuals at Michigan that Dr. Harris collaborates with to help design and interpret their functional neuroimaging studies. This allows many UM investigators to take their research in directions that they simply would not be able to if not for his expertise, and his willingness and enjoyment of mentoring and helping others succeed. Dr. Harris has been named to editorial boards for several of the highest impact journals in alternative medicine (e.g., Evidence Based Complementary and Alternative Medicine). He has also served as an ad hoc reviewer for over 15 journals in the fields of pain, alternative medicine, and neuroscience. He was awarded the Traditional Chinese Medicine World Foundation Research Award in 2003 for his study of acupuncture treatment in fibromyalgia. Dr. Harris' expertise in the fields of clinical neuroscience and pain is recognized nationally and internationally, as evidenced by his invited lectures on topics related to analgesia and alternative medicine. In addition to his academic research publications, Dr. Harris' work on chronic pain and acupuncture has also been discussed in national and international media.

Recent and Significant Publications:

Harris RE, Clauw DJ, Scott DJ, McLean SA, Gracely RH, Zubieta JK: Decreased central μ-opioid receptor (MOR) availability in fibromyalgia (FM). *Journal of Neuroscience* 27:10000-10006, 2007.

Harris RE, Zubieta JK, Scott DJ, Napadow V, Gracely RH, Clauw DJ: Traditional Chinese acupuncture and placebo (Sham) acupuncture are differentiated by their effects on m-opioid receptors (MORs). (2009) *Neuroimage* 47:1077-1085, 2009.

Harris RE, Sundgren PC, Craig AD (Bud), Kirshenbaum E, Sen A, Napadow V, Clauw DJ: Elevated insular glutamate (Glu) in fibromyalgia (FM) is associated with experimental pain. *Arthritis and Rheumatism* 60:3146-3152, 2009.

Napadow V, LaCount L, Park K, As-Sanie S, Clauw DJ, Harris RE: Intrinsic brain connectivity in fibromyalgia is associated with chronic pain intensity. *Arthritis and Rheumatism* 62:2545-2555, 2010.

Zick SM, Alrawi S, Merel G, Burris B, Sen A, Litzinger A, Harris RE: Relaxation acupressure reduces persistent cancer related fatigue. *Evidenced-Based Complementary and Alternative Medicine* 2011; doi:pii: 142913. 10.1155/2011/142913. Epub 2010 Sep 2.

Service: Dr. Harris is primarily a clinical researcher. He has been board certified in acupuncture from the National Certification Commission for Acupuncture and Oriental Medicine since 2002. This organization is the major credentialing body for acupuncture within the United States. During his research studies at the University of Michigan, he has performed over 500 acupuncture treatments on chronic pain patients. Dr. Harris has held a number of administrative positions during his time as faculty at the University of Michigan. Specifically, he has served on the following committees: Medical School Admissions Committee, Integrative Medicine Research Council Steering Committee, and Therapeutic Acupuncture Collaborative. On the national level, Dr. Harris has served as a board member and treasurer for the Society for Acupuncture Research, a 501c3 non-profit organization devoted to promoting high quality research into acupuncture and East Asian Medicine. He has also been a co-president for the Society for Acupuncture Research since 2007, and during this time he has been involved in national and international movements to improve visibility of high quality research in acupuncture. Toward this goal, Dr. Harris has co-hosted two NIH-funded international research meetings, one of which was held at the University of Michigan in the Spring of 2013. His role as a leader in chronic pain, neuroimaging, and alternative medicine, has helped the Department of Anesthesiology achieve national recognition, through increased high-impact publications, national grant awards, and contributions to highly regarded textbooks.

External Reviewers:

Reviewer A: "Dr. Harris has distinguished himself as one of the leaders of neuroimaging studies of fibromyalgia and chronic pain disorders, work that will continue to provide insights into the understanding of these common and often disabling disorders. His work will also likely translate into improved treatments for chronic pain and will contribute to the development of biomarkers for diagnosis and assessment of treatment responses."

Reviewer B: "...Dr. Harris is an innovative interdisciplinary researcher who is nationally recognized in the fields of pain, fatigue, neuroimaging, and alternative medicine. He has published seminal research in high-impact journals in his field, and he has a demonstrated ability to obtain competitive, long-term funding from major organizations, including the National Institutes of Health and the U.S. Department of Defense."

<u>Reviewer C</u>: "...Dr. Harris has established a strong record of scholarly excellence. He is a methodologically rigorous scientist and an outstanding mentor. He is a recognized leader in a variety of scientific fields and has compiled an impressive portfolio of publications, presentations and professional activities. His research is both clinically and mechanistically relevant and he has received consistent support from both federal and non-federal sources."

<u>Reviewer D</u>: "His research, working with collaborators in Dr. Clauw's group, has opened up novel approaches to understanding central mechanisms of chronic pain disorders, such as fibromyalgia. His background in cell biology and acupuncture has helped to establish a scholarly evaluation of complementary medicine therapies. His numerous publications in a wide variety of scientific journals demonstrate the interdisciplinary nature of his exciting research."

Reviewer E: "...Dr. Harris is a nationally recognized scientist with exceptional potential and already established productivity....I expect he will continue to make substantial contributions."

Reviewer F: "There are few up and coming researchers in the field of persistent pain disorders who would match the novelty and importance of his recently published work. His recognition in the field of acupuncture research is also reflected in the fact that he is co-PI on two large NIH grants related to acupuncture."

Reviewer G: "Dr. Harris is a nationally and internationally recognized scholar....Overall his projects are very innovative and methodologically sound and he is highly respected internationally for the quality and significance of his work."

Summary of Recommendation:

Dr. Harris has a unique niche in the field of pain management and alternative health therapies. I am pleased to recommend Richard E. Harris, Ph.D. for promotion to associate professor of anesthesiology, with tenure, Department of Anesthesiology, and associate professor of internal medicine, without tenure, Department of Internal Medicine, Medical School.

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2014