THE UNIVERSITY OF MICHIGAN
REGENTS COMMUNICATION

Item for Information

Subject: Henry Russel Awards for 2012

I am pleased to inform you that the Russel Awards Faculty Advisory Committee, chaired by Dean Janet A. Weiss, has selected three faculty members to receive Henry Russel Awards for 2012. This award, which recognizes both exceptional scholarship and conspicuous ability as a teacher, is one of the highest honors the University bestows upon junior faculty members. The awards will be presented on the occasion of the Henry Russel Lecture, to be delivered February 23, 2012.

The faculty members selected to receive this award are:

Lada Adamic, Associate Professor of Information, School of Information, Assistant Professor of Electrical Engineering and Computer Science, College of Engineering

Aaron Pierce, Associate Professor of Physics, College of Literature, Science and the Arts

Haoxing Xu, Assistant Professor of Molecular, Cellular and Developmental Biology, College of Literature, Science and the Arts

Respectfully submitted:

Mary Sue Coleman
President

October 2011

Attachment

Lada Adamic

Lada Adamic is associate professor of information, School of Information, assistant professor of electrical engineering and computer science, College of Engineering, and associate professor of complex systems, Center for the Study of Complex Systems, College of Literature, Science and the Arts. Professor Adamic came to the university in 2005 after completing her Ph.D. in applied physics at Stanford University and then working at HP Labs for four years.

Professor Adamic is an expert in the analysis of online communities, social networks and expertise networks, and has also done substantial work on issues of basic network theory. Her research interests center on information dynamics in networks: how information diffuses, how it can be found, and how it influences the evolution of a network's structure. Projects have included mining medical literature for gene-disease connections, tracking and modeling information flow in email and blog networks, modeling search processes on real-world social networks, and building expertise-finding systems. Her research results have import for a variety of fields, from information science to political science to communications. All of those who wrote in support of her nomination for this award asserted that her work has revolutionized the computational study of social networks and online communities.

Professor Adamic has published to date in 46 peer-reviewed journal and conference publications, the majority of which have appeared since her move to the university. Her influence is seen in the fact that twelve of her papers have been cited more than 200 times each. Her work has been published in a range of journals, including *Physical Reviews, Nature, LinkKDD, Social Networks, Physica, Quarterly Journal of Electronic Commerce,* and *Science*.

Professor Adamic has been principal investigator, co-principal investigator or subcontract principal investigator for eleven grants during the course of the past six years. She is the recipient of the highly prestigious NSF CAREER grant for early career faculty and has received funding from the Department of Defense, the Army Research Institute and from Microsoft Live Labs, among other sources.

Complementing her research activities, Professor Adamic teaches undergraduate and graduate courses in complex systems, statistics and data analysis, theory and application of networks, search and retrieval and data manipulation. She is a conscientious and creative instructor, who has embraced the use of active learning techniques. Her classes draw students from the School of Information as well as from biology, bioinformatics, industrial and operations engineering, sociology, economics, computer science, political science, natural resources and environment, and business. Professor Adamic has chaired or co-chaired five doctoral dissertation committees, served on twelve other dissertation committees here and at other institutions for students from several different disciplines. In addition, she has supervised three postdoctoral fellows.

Aaron Pierce

Professor Pierce completed his B.A. degree at Rice University, and then spent a year in graduate studies in physics at Trinity College in the University of Cambridge. He completed his Ph.D. at the University of California, Berkeley in 2002. He held research associate appointments at the Stanford Linear Accelerator Center and the High Energy Theory Group at Harvard, before being appointed assistant professor of physics at the university in 2006.

Professor Pierce is a theoretical physicist, working mainly in the area of phenomenological particle theory. The Standard Models of particle physics and cosmology are syntheses of the progress of the past four centuries into one encompassing concise mathematical quantum field theory that describes the physical world. Nonetheless, there are important questions it does not explain. Professor Pierce is an internationally recognized particle theorist deemed by peers to have an important role in the development of new theories of physics beyond the Standard Model, and their implications both for the new collider at the CERN Laboratory in Geneva, Switzerland (LHC) experimental program and for searches for dark matter.

Professor Pierce's publication record in particle theory testifies to his achievements at this early stage of his career. He wrote almost half of his 44 publications after his appointment at the university. There are over 1400 citations to his published papers, and 11 of them have over 50 citations; none are without citation.

He received a prestigious NSF Career Grant that awarded $400,000 in research funding for the period 2008-2013. In addition, he was peer reviewed for inclusion as one of eight faculty members who receive $825,000 annually from the Department of Energy to pursue their research in theoretical physics.

Professor Piece has demonstrated a commitment to service in multiple arenas. For example, at the university he organized and ran the High Energy Physics Seminar for three years and served on departmental committees for graduate admission, graduate qualifying exams, and undergraduate awards. Nationally, he has become a referee for all the main physics journals worldwide, and has reviewed proposals for the National Science Foundation and for the U.S. Department of Energy.

His engagement in teaching and mentoring is evident at the undergraduate and graduate levels, and this also extends beyond the classroom and lab. Professor Pierce has been notably engaged in a wide range of outreach activities on campus and in the community, successfully sharing his excitement with the field of particle physics through crafting museum exhibits and providing public lectures.

Haoxing Xu

Professor Xu received his B.S. degree from Peking University, and then moved to the U.S. where he completed his doctorate in neurobiology at Georgia State University in 2001. Immediately following this he became a postdoctoral fellow in physiology and molecular biology at the Howard Hughes Medical Institute. Professor Xu then joined the university's Department of Molecular, Cellular and Developmental Biology in 2007.

Professor Xu has achieved an extraordinary level of research productivity he has exhibited since he arrived at the university. In his nominator's view, Professor Xu's success is at least in part the result of his fearlessness in taking on very challenging and significant problems and attacking them with creativity and hard work. His research has focused on the effort to understand the transmembrane signaling mechanisms used by cells to detect environmental information and intercellular signals at the molecular, cellular, and system levels.

Professor Xu's experimental investigations involve studies of the mucolipin (ML) family of TRP channels, which are proteins that carry ions across cell membranes. These TRP-ML channel molecules had been known, but their function had remained quite mysterious. Professor Xu took the extremely bold step of setting out to develop methods to study the properties of the TRP-ML channels in their native, intracellular membranes. He made what his peers consider a spectacular technical advance and these results were published in *Nature* in 2008.

Among his accomplishments as a postdoctoral fellow were five first-author papers in very high prestige journals (*e.g., Nature, Nature Neuroscience, Journal of Neuroscience*), and he also made significant contributions to two additional high profile papers in *Science* and *PNAS*. More recently, his first-author publications have appeared in *Nature Communications* (2010), *Cell* (2010), *Journal of Neurochemistry* (2010), and *Journal of Biological Chemistry* (2009). Several of his papers have been accompanied by special commentaries from the journal editors or other leading scientists.

Professor Xu's research accomplishments have recently attracted considerable national attention. He is the recipient of an Alfred P. Sloan Foundation Fellowship (2009) and he was nominated by the NIH and selected by the White House as a winner of the prestigious Presidential Early Career Award for Scientists and Engineers (2010).