

MEET THE NEW FACULTY



William J. Jagust, M.D.
Professor of Public Health and
Neuroscience

Even in high school, William Jagust was fascinated by the workings of the human brain. “I thought the question of how we perceive, how we understand, and how we remember was absolutely key and fantastically interesting,” he says. Later, in medical school, he found that courses dealing with the brain were the ones that appealed to him most. While a resident in neurology at Boston University, he observed many older patients who had dementia, memory problems, and Alzheimer’s disease. Jagust wanted to know more about which changes in the brain occur with normal aging, and which occur with brain degeneration.

“I talked to my professors and teachers, and I learned that no one really understood it very well,” he says. “How are these two processes—aging and disease—the same, and how are they different? This knowledge will help diagnose these diseases earlier and better, and it will help us understand the biology of aging and what it means.”

Upon completing his residency, he came to Lawrence Berkeley National Laboratory, where a group was using a technique called PETscanning to study the chemistry of the brain in aging. “PETscanning is a way of mapping particular chemicals by radiolabeling,” Jagust

“How are these two processes—aging and disease—the same, and how are they different?”

explains. “A PETscanner takes a very high resolution picture of the brain. You can see how the radiolabeled compound, such as glucose, is distributed, what brain regions it’s going into, where the brain is using it, what parts aren’t using it, and what parts are using it faster than others.” Jagust and the team at Lawrence Berkeley Lab were involved in some of the first studies that used PETscanning to find changes in glucose metabolism in the brains of patients with Alzheimer’s disease.

“This kind of research that was going on in a number of labs paved the way for a whole series of inquiries that began to apply imaging technologies to understanding aging and dementia and degenerative diseases,” says Jagust. “Out of these first observations, my whole career grew. We’ve subsequently been able to use PETscanning to develop ways of looking at different chemicals in the brain, and we’ve been able to develop MRI scanning to look at brain structure and how that changes. When you start to pair changes in the structure of the brain with changes in the chemistry of the brain, you can get a real window into what is going on.”

Along with his professorship in public health and neuroscience at UC Berkeley, Jagust is a faculty senior scientist at the Lawrence Berkeley National Laboratory. He has been working with Lawrence Berkeley National Laboratory since 1987 while holding a faculty position in the Neurology Department at UC Davis. During his service as chair of the Neurology Department from 1998 to 2003, his physical home base was at Davis. His new position on the Berkeley campus means a return to the Bay Area.

Jagust appreciates that his move to Berkeley allows him to combine his interests in public health and neuroscience and his work at Lawrence Berkeley

National Lab. In recent years, he has become increasingly interested in studying large cohorts of people using epidemiologic techniques and thus is eager to collaborate with others interested in epidemiology. He also looks forward to working with his neuroscience colleagues who use imaging as a research technique. In addition, he has access to the resources and people at the Lawrence Berkeley National Laboratory.

“Having all those things together is tremendously appealing,” says Jagust. “The other thing is, I love Berkeley. I’ve missed the Bay Area and it’s very nice to be back.”

Education

Residency, Boston University Affiliated Hospitals, Training Program in Neurology, 1980–83

Internship and Residency, St. Elizabeth’s Hospital, Boston, 1978–80

M.D., State University of New York at Stony Brook, School of Medicine, 1978

B.A. in Psychology, Reed College, 1974

Selected Experience

Professor of Public Health and Neuroscience, University of California, Berkeley, 2004–present

Chair, Department of Neurology, School of Medicine, University of California, Davis, 1998–2003; Professor, 1995–present; Associate Professor, 1991–1995; Assistant Professor, 1986–1991

Faculty Senior Scientist and Head, Center for Functional Imaging, Lawrence Berkeley National Laboratory, 2004–present; Associate Faculty Medical Scientist, 1987–2004

Attending Neurologist, David Grant Medical Center, Travis Air Force Base, 1993–1997

Director, UC Davis Alzheimer’s Disease Center, 1991–present



Ann C. Keller, Ph.D.
Assistant Professor of Health Policy
and Management

Ann Keller is no stranger to the Berkeley campus. She earned her Ph.D. in political science at UC Berkeley; then, after joining the political science faculty at the University of Colorado, Boulder, she returned to Berkeley as a Robert Wood Johnson Scholar in Health Policy Research at the School of Public Health. This year she accepted a faculty position at the School as assistant professor.

Keller feels that her position at the School will allow her the flexibility to consider the theoretical issues that motivate her research. “People have asked me about what it’s like to leave a disciplinary political science department and move into a school of public health,” she says. “Part of what attracts me to the School is that the faculty here are very concerned about being part of their communities and doing applied work and having relevance in terms of what’s happening with health policy and public health in the United States—but they also have very strong ties to their disciplines.”

One of her primary research interests is the tension between expertise and democratic decision making. “That interest is what led me to environmental politics as a graduate student,” says Keller. “There’s so much science that goes into how we protect the ecosystems and the function

“Experts have a list of things that they think are risky, and people who are not experts have another set of things they think are risky.”

of human activities—yet we also value people’s thoughts about their own environment, and they don’t often have expert ways of describing them. So how do we incorporate both perspectives into environmental policymaking?”

“Experts have a list of things that they think are risky, and people who are not experts have another set of things they think are risky,” she continues. “Because of where you are socioeconomically when you are an expert, you don’t necessarily have an unbiased perspective on how people live. In some instances, what people believe is risky is what matters to them and what they care about, and you have to take that seriously.”

Keller is greatly interested in how the federal government’s environmental standards relate to local practices and concerns. “The ability to enforce national standards is a bit hit or miss depending on where you are,” she says. “A lot of people are trying to find ways to build up environmental protection from more of a local level, but creativity and innovation at the local level can be constrained by national standards. I think it is a major challenge: how to maintain national standards and maintain minimum levels of protection but allow for better problem solving that fits with local communities and local needs.” As a Robert Wood Johnson scholar, her interest in these challenges led her to study the Centers for Disease Control and Prevention and its interactions with local communities.

With her existing ties to Berkeley, Keller anticipates opportunities for collaboration with researchers across the campus. In addition, she is excited about the courses she’ll be teaching. “I think I’ll be teaching

one of the master’s seminars on health policy and politics that Helen Halpin is teaching, and my hope is that we can do complementary versions of it,” she says. “And I’m going to teach a course in environmental health politics, of course. I’m also hoping to get a chance to work on a seminar on technology and health policy and medicine.”

— Michael S. Broder

Education

Ph.D., Political Science, University of California, Berkeley, 2001

M.A., Political Science, University of California, Berkeley, 1993

B.A., Mathematics and Political Science, Indiana University, 1991

Selected Experience

Assistant Professor, School of Public Health, University of California, Berkeley, 2003–present (on leave 2003–2004)

Robert Wood Johnson Scholar in Health Policy Research, University of California, Berkeley, 2002–2004

Assistant Professor of Political Science and Environmental Studies, University of Colorado, Boulder, 2001–2003

Research Assistant, Center for Nuclear and Toxic Waste Management, University of California, Berkeley, 1994–1997

Selected Honors

Dissertation Fellowship Award, Department of Political Science, University of California, Berkeley, Fall 2000

1999 Best Paper Award, Science, Technology and Environmental Policy (STEP), American Political Science Association, August 2000

Continuing Student Fellowship Award, Department of Political Science, University of California, Berkeley, 1997–1998