



2006 AGNES FAY MORGAN AWARD
Dr. Mei Hong, Iowa State University

Dr. Mei Hong is the **2006 recipient of the Agnes Fay Morgan Award**. This annual award is given for research achievement in chemistry or biochemistry. The nominee must be a woman chemist or biochemist, not over forty years of age at the time of her nomination.

Dr. Mei Hong grew up in China and attended Fudan University in Shanghai for two years before completing her undergraduate study at Mount Holyoke College, graduating summa cum laude in Chemistry in 1992. She pursued graduate work at UC Berkeley, working in the laboratory of Professor Alexander Pines to study the dynamic conformation of phospholipids and liquid crystals using solid-state NMR. After obtaining her Ph.D. in 1996, she spent a year as a postdoctoral fellow at MIT, working with Professor Robert Griffin to develop new NMR techniques to determine protein conformation. In 1997 Dr. Hong joined the Department of Polymer Science and Engineering at the University of Massachusetts at Amherst as a Research Assistant Professor, where she combined new multidimensional solid-state NMR techniques and biosynthetic labeling of proteins to achieve resonance assignment and measure multiple torsion angles in highly isotopically labeled solid proteins.

In 1999 Dr. Hong joined the faculty of Iowa State University, where she is now a Professor of Chemistry. Her research centers on the application and development of solid-state NMR spectroscopy to the investigation of the three-dimensional structure and dynamics of membrane proteins and fibrous protein polymers. Various antibiotic and antimicrobial membrane proteins are studied to determine their membrane-binding topology, their oligomeric state, and their dynamic conformational changes, with the goal of designing better antibiotic drugs with tailored selectivity and potency. The conformational distribution of elastin-mimetic proteins is also investigated to understand the structural basis for

elasticity.

Dr. Hong has won a number of awards for her innovative biophysical NMR research, including the National Science Foundation POWRE and CAREER awards, the Beckman Young Investigator Award, the American Chemical Society Award for Pure Chemistry, a Research Innovation Award from the Research Corporation, a Sloan Foundation Fellowship, the Mary Lyon Award from the Alumnae Association of Mount Holyoke College, and an Early Achievement in Research from Iowa State University. She serves as an excellent role model for students by teaching a wide variety of undergraduate courses, juggling family responsibilities with a successful career, and serving as the faculty advisor for the Society for Chemistry Undergraduate Majors.