



FOR DIRECTOR-AT-LARGE



MARY JO ONDRECHEN

Northeastern University, Boston, MA

ONDRECHEN, MARY JO *Northeastern Section.* Northeastern University, Boston, Massachusetts.

Academic Record: Reed College, B.A. (ACS certified), Chemistry, 1974; Northwestern University, Ph.D., Chemistry, 1978.

Honors: Outstanding Service Award, Interstate Technology & Regulatory Council, 2005; Outstanding Contributions Award, Interstate Technology & Regulatory Council, 2004; Excellence in Teaching Award, Northeastern University, 1989; Alfred P. Sloan Foundation Fellowship, 1987-91; NATO Postdoctoral Fellowship, 1980.

Professional Positions (for past ten years): Professor of Chemistry and Chemical Biology, Northeastern University, 1990 to date.

Service in ACS National Offices: Committee on Minority Affairs, 2012-17, Committee Associate, 2011; Graduate Education Advisory Board, Liaison, 2013; Presidential Task Force on Implementing Committee on Professional Trainings Diversity Report, 2009-10.

Member: American Indian Science and Engineering Society; Biophysical Society; International Society for Computational Biology; Protein Society; Society for the Advancement of Chicanos and Native Americans in Science. *ACS Divisions:* Biological Chemistry; Computers in Chemistry; and Physical Chemistry.

Related Activities: Board of Directors, American Indian Science & Engineering Society, 2007-10, Chair of the Board, 2011-13; Committee of Visitors, National Science Foundation, Chemistry Division, 2007; Molecular and Cellular Biology Division, 2014, 2011; Board of Advisors, Interstate Technology & Regulatory Council, 2008-13; Regional Editor, *Current Bioinformatics*, 2007 to date; Editorial Board, *Current Bioinformatics*, 2005 to date; Editorial Board, *The Open Access Informatics Journal*, 2007-09; Board of Directors, Telluride Research Center, Telluride, Colorado, 2005-07; Board of Directors, North American Indian Center of Boston (NAICOB), 1999 to date; Board President, 2011 to date; Open Chemistry Collaborative in Diversity Equity (OXIDE) Advisory Board, 2012-18; Numerous invited and contributed technical presentations for Biological, Computers in Chemistry, Medicinal, and Physical Divisions, and Presidential Symposia, at ACS National meetings; published 17 articles in ACS and non-ACS journals, 2010-15.

STATEMENT

The statements of the candidates represent their opinions and do not necessarily represent the views of the ACS.

I have two major goals for the ACS. First, the ACS must position itself to remain a strong, vibrant, and respected organization in the future. Second, our organization must play a leadership role in addressing the biggest challenges faced by our country and by the world. To achieve these goals, we must recruit and retain members who are fully engaged and who find both professional and personal reward through active participation in ACS. We must also strengthen our message about the importance of science to a wide audience. Our strength and influence as an organization depend on our members.

Member retention and outreach must be high priorities. This requires engaging members in all career stages and in all sectors. Specifically, we need to improve efforts to involve younger chemists in all ACS activities, including governance, divisions, committees, and events. We need to provide services of value and activities that capture the interest of chemists in all sectors, including industry, government, non-profit, and academia. Providing valuable service to our members in industry is of personal importance to me because many of my former Ph.D. students are now serving in industry in such areas as pharmaceuticals, genomics, and biotechnology. I want them to continue to be active contributors to our organization.

Broadening participation in the chemical sciences is the right thing to do; it is also in our own best interests. Since basic research is supported chiefly by public funds, public support for science is critical. People are more likely to support scientific research if they have some knowledge of science or if they have a personal connection such as a family member in science. To be at its strongest, our country must take advantage of our full talent pool; unfortunately we have not seen this happen yet. The ACS needs to encourage and welcome a diverse pool of scientific talent in our organization. I am proud that we, particularly through the Scholars program and through engagement with science diversity organizations, have taken positive steps for diversity and inclusion. I want to see these efforts continued and enhanced. The science professions are still generally lacking effective strategies for broadening participation; the ACS should take a leadership role in developing and establishing strategies that work.

We need to spread the message widely that **research and scientific discovery are important initiators of economic growth and job creation**. Promotion of investment in areas such as antibiotics, vaccines, cybersecurity, and novel threat detection technologies is essential for our future national security. The U.S. needs to retain its leadership position in medical diagnostics and treatments; chemistry is central to discovery and innovation in these areas. Innovative technologies in areas such as green chemistry, biofuels, energy storage, renewable energy, agriculture, and environmental remediation address current global problems in sustainability and also present tremendous opportunity for new business development and job growth.

Technology transfer of scientific innovation to the marketplace is critical to economic growth and to U.S. competitiveness in the global economy. The ACS is in a position to disseminate information and to promote partnerships to help to catalyze the development of new industries based on new technologies, for the benefit of the country and for job growth in our profession. In addition, chemical education should include some component pertaining to **entrepreneurship**.

A little bit about Mary Jo Ondrechen: My background is in theoretical physical chemistry. I serve as Professor of Chemistry and Chemical Biology and as Principal Investigator of the Computational Biology research group at Northeastern University in Boston. We study how enzymes function, we develop predictive methods for functional genomics, and we work with medicinal chemists on drug discovery projects. We have submitted a total of eight abstracts to the Fall ACS National meeting in the BIOL, CHED, COMP, and PHYS Divisions and we have participated recently in the MEDI Division. I am an experienced non-profit Board member, having served as the 2011-2013 Chair of the Board of Directors of the American Indian Science and Engineering Society (AISES). I also served for six years (2008-2013) on the Board of Advisors of the Interstate Technology and Regulatory Council (ITRC), a non-profit organization that evaluates and facilitates the deployment of innovative technologies to solve environmental problems. My other passions besides Chemistry include promoting science diversity, advocacy for the Native American community, and environmental advocacy.

Please see www.ondrechen.org for more information.