



NOMINEE FOR PRESIDENT-ELECT, 2021



MARY K. CARROLL

Union College, Schenectady, New York

CARROLL, MARY K. *Eastern New York Section.* Union College, Schenectady, NY.

Academic record: Union College, B.S., 1986; Indiana University, Bloomington, Ph.D., 1991.

Honors: ACS Fellow, 2016; 100 Inspiring Women in STEM Award, INSIGHT into Diversity Magazine, 2015; Faculty Meritorious Service Award, Union College Alumni Council, 2012; Outstanding Service Award, New York Section of the Society for Applied Spectroscopy, 2009; Stillman Prize (for Teaching), Union College, 1995; ACS Division of Analytical Chemistry Graduate Fellowship, 1990-91; National Science Foundation Graduate Fellowship, 1987-90; Phi Beta Kappa; Sigma Xi; Iota Sigma Pi.

Professional positions (for past 10 years): Union College, Dwane W. Crichton Professor of Chemistry, 2017 to date; Professor, 2005-17; Chair, Chemistry Department, 2008-11; Sunthru LLC, Chief Science Officer, 2013 to date.

Services in ACS national offices: Committee on Science, Committee Associate 2019; Leadership Advisory Board, 2018-10, Committee Associate, 2014-17; Board/Council Policy Committee Task Force on Governance Design, co-chair, 2016-19; Committee on Planning, 2017; Council Policy Committee, (voting) 2013-18, Vice-Chair, 2017, 2010-12 (non-voting); Committee on Education, 2005-12, Chair, 2010-12, Committee Associate, 2001-04; ACS Strategic Plan Education Goal Working Group, 2011, Chair, 2011; Program Review Advisory Group, 2010-11; Advisory Board, Graduate Education, 2010-12; Women Chemists Committee, 2004, Committee Associate, 2001-03.

Service in ACS offices: *Eastern New York Section:* Councilor, 1998-22; Alternate Councilor, 1995-97; Education Committee, 1993 to date.

Member: Member ACS since 1986. Society for Applied Spectroscopy; International Sol-Gel Society; Materials Research Society; Sigma Xi. *ACS Divisions:* American Association of Chemistry Teachers; Analytical Chemistry; Chemical Education; Inorganic Chemistry; Polymer Chemistry; and Small Chemical Businesses.

Related activities: Union College, Director, Undergraduate Research, 2005-08; Associate Professor, 1998-2005; Assistant Professor, 1992-98; Union College Chemistry Club (ACS Student Chapter) Faculty Advisor, 2018, 2013, 1994-09; Student Awards Committee, New York Section, Society for Applied Spectroscopy, 2006-12, Chair, 2006-12; University at Buffalo, Research Assistant Professor, 1997-2000; University of Massachusetts, Amherst, Postdoc, 1991-92; Indiana University, Lecturer, 1990; Published 45 journal articles and three book chapters; holds three patents.

STATEMENT

The following statement appeared in the ACS Council Agenda, March 25, 2020 in preparation for Council to elect two candidates from four nominees. The statements of the nominees represent their opinions and do not necessarily represent the views of the ACS.

I am proud to be an ACS member volunteer and truly honored to be a nominee for ACS President-Elect.

My ACS Story

My first exposure to ACS was in high school when, along with other students who sat for a chemistry competition exam, I was invited to attend a meeting of the Rochester Local Section. I earned a BS degree from an ACS-approved chemistry department. During the summer before graduate school, an ACS Division of Analytical Chemistry Summer Internship provided me with the opportunity to participate in industrial research. For my final year of doctoral studies, I received an ACS Division of Analytical Chemistry Graduate Fellowship. A grant from the ACS Petroleum Research Fund allowed me to explore a new research direction, which led to subsequent funding from the National Science Foundation and contributed to the development of the vibrant interdisciplinary research program in aerogel materials that I co-direct today. And, through taking on ACS service roles within the Eastern New York Section and on national committees, advisory boards, task forces and working groups, I've had opportunities to develop my teamwork and leadership skills, working with and being mentored by other dedicated colleagues from diverse backgrounds while giving back to the community. I firmly believe in 'paying it forward.'

Education as a Core Value and Goal

The ACS, through its programs and policy statements, has taken and must continue to assert a leadership role in supporting science education. I bring considerable experience in this area. My career has been spent at a liberal arts college, where I teach introductory chemistry, analytical chemistry and chemical instrumentation, as well as courses for non-science majors, advise students and have an active research program through which I mentor undergraduate researchers. During my years on the Society Committee on Education (SOCED), I worked on initiatives related to education at all levels. One highlight: in 2011, I led a team of key ACS education committee stakeholders in a short-term, high-impact effort to consider concepts that might be used in the Society's strategic plan for 2012 and beyond. We focused on outcomes ACS should pursue among areas where chemistry and education intersect. This working group urged adoption of an explicitly education-focused Goal in the ACS Strategic Plan, along with specific outcomes for K-12 and higher education, and emphasized that **ACS is uniquely positioned, and therefore obligated, to lead in promoting excellence in chemical education**. The Board of Directors subsequently adopted a Strategic Plan in which education features prominently as Goal 3 (currently, 'Support Excellence in Education').

Effective Engagement of All Members

A major challenge faced by professional societies, including the ACS, is declining membership. In a time of rapid change – both in career paths and in methods of communication – ACS must articulate and demonstrate the value of membership to new and continuing members. To remain relevant, **ACS must support and engage members at all professional stages**, as students, throughout their careers and into retirement, wherever their paths take them. I interact with undergraduate students on a daily basis. Most of these students will have careers that differ substantially from mine: they will work in multiple fields for several employers in different locations. It is critically important for ACS to encourage members to be lifelong learners, prepared to build upon their education and gain expertise in areas that might not even exist today, and establish and continually cultivate their professional networks. Although ACS offers an outstanding array of professional and leadership development programs, relatively few ACS members take advantage of these. ACS has a well-deserved reputation among other professional societies for robust member volunteerism at the local and national levels; however, the established ACS governance structures, which enable and support continuous efforts but often require long-term commitments and travel to meetings, underutilize the talents of some members, including technicians and other industrial professionals, international members, faculty members in high schools and at two-year colleges as well as both early-career and senior chemists. Providing more focused, short-term opportunities for members with a broad diversity of backgrounds and experiences to contribute meaningfully to ACS initiatives would be of substantial benefit to the Society.

What Can, and What Should, ACS Do? No one person has all the answers. Regardless of the outcome of this election, I am committed to working constructively, respectfully, collaboratively and creatively with you to advance ACS for its members and society. It would be an honor to do so as President-Elect.