

# Mary Lowe Good (1931–2019)

Renowned chemist, respected leader, and inspiring mentor

By Margaret A. Cavanaugh

**M**ary Lowe Good, one of the most renowned female scientists of her generation, died on 20 November 2019. She was 88. Mary won acclaim for her accomplishments in academe, industry, and government. As a physical inorganic chemist, she adapted Mössbauer spectroscopy to characterize ruthenium catalysts. She went on to lead an industrial materials research organization and later the Clean Car initiative as undersecretary for technology at the U.S. Department of Commerce.

Mary was proud of her roots. She was born in Grapevine, Texas, on 20 June 1931 and moved with her family to Arkansas in 1943. Her schoolteacher parents valued education, and she described her mother as the smartest person she ever knew. The oldest of four, Mary enjoyed accompanying her father on fishing and hunting outings. She began college at Arkansas State Teachers College (now the University of Central Arkansas) as a home economics major, but her freshman chemistry teacher encouraged her interest in science. She earned her bachelor's degree in chemistry in 1950, just before her 19th birthday, and 5 years later earned a doctorate in radiochemistry at the University of Arkansas.

In 1952, Mary married physicist Bill Good, who was her physical chemistry lab partner at Arkansas State. Their first son, John, was born as she was finishing her master's degree in 1953, and their second, James, was born in 1958. Students sometimes asked Mary for advice about when to have children without hindering their careers. She responded that during graduate school had worked well for her.

Mary began her first academic position as an instructor at Louisiana State University (LSU) in 1954, before completing her doctorate. After graduating and being awarded a grant from Research Corporation for Science Advancement, she was promoted to assistant professor. In 1958, Mary and her family moved to the new LSU campus in New Orleans, where she and Bill would spend the next 20 years building the university. By 1974, she was named a distinguished

Boyd Professor of Chemistry, having developed a curriculum, equipped a research laboratory, and planned a science building. By 1980, she had received numerous grants and authored more than 100 research papers in solvent separations and characterization of metallic species, solid-state chemistry and electron exchange, and testing methods for tin antifouling coatings.

A new phase of Mary's career began in 1980 when she became vice president and director of research for Universal Oil Products, a Signal Companies subsidiary. She added materials science and biotechnology to the catalytic processes for which the company was known. After a series of



mergers, she became senior vice president for technology for Allied-Signal, with laboratories in three states.

Mary is perhaps best known for her public service. Always active in the American Chemical Society (ACS), she became a board member in 1972, board chair in 1978, and president of the society in 1987. She was appointed to the National Science Board in 1980 and later became its chair. George H. W. Bush appointed her to the prestigious President's Council of Advisors on Science and Technology. Mary was elected president of the American Association for the Advancement of Science (AAAS, the publisher of *Science*) in 2001.

In 1993, Mary left Allied-Signal to become undersecretary for technology at the U.S. Department of Commerce during the Clinton administration. Briefly, she served as acting secretary of commerce after the tragic death of Secretary Ronald H. Brown in 1996. In 1997, Mary became the Donaghey University

Professor at the University of Arkansas at Little Rock. A year later, she agreed to a 2-year term as the founding dean of the Donaghey College of Engineering and Information Technology at University of Arkansas at Little Rock. She retired from that position 13 years later, as dean emeritus and special adviser to the chancellor in the field of economic development. She occupied an office at the university until 2017. As usual, she had developed recognized programs in systems engineering and modeling and simulation.

Mary was the first woman to attain a particular position or honor countless times, starting with being the first woman from Arkansas to earn a Ph.D. in a physical science. She received dozens of important awards, including the National Science Foundation's highest honor, the Vannevar Bush Award; the ACS Priestley Medal; AAAS's prestigious Philip Hauge Abelson Prize; and the Heinz Award in Technology, the Economy and Employment, as well as 21 honorary degrees. She was also a member of the National Academy of Engineering.

In the eyes of the many female chemists for whom Mary served as a role model, the most cherished recognition she received may have been ACS's Francis P. Garvan–John M. Olin Medal. This national prize was a breakthrough for Mary and has been a stepping-stone to recognition for many other female chemists. Mary received the award in 1973, the same year that I joined her group as a postdoctoral researcher. Little did I know how life-changing the experience would be; she offered not only an environment in which to cultivate scientific skills but also a leadership opportunity and an introduction to public service. She took me to my first national ACS meeting, making sure I presented a paper and going out of her way to introduce me to well-known chemists and board members, thus paving the way for my own ACS governance service.

Mary was direct and down-to-earth, an irresistible dynamo who shared her success with her students and colleagues. Her thoughts on the direction of industry, research, and governance were sought out not just by colleagues but by journalists and policy-makers. She was always involved, highly energetic, and forward looking. Her curiosity and social involvement never abated as she worked on her many projects with organization, strategic intelligence, and good humor. When she wasn't reading science, she was reading English literature. She sought out ways to encourage young people, especially young women, to advance their science education. Her own heroine, Marie Curie, would have been astonished and proud. ■

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