University of Delaware Honorary Degree

ROBERTA F. COLMAN
DOCTOR OF SCIENCE

Accomplished scholar, after earning your undergraduate degree at Radcliffe College *summa cum laude,* you went on to Harvard where you worked under the direction of renowned physical organic chemist Frank Westheimer and earned your Ph.D. in biochemistry. You completed postdoctoral fellowships at the National Institutes of Health and Washington University before joining the faculty of Washington University's Department of Biological Chemistry. A year later, you became a faculty member in the Department of Biological Chemistry at Harvard Medical School. Finally, you found a permanent home here with the Blue Hens.

Revered educator, you joined UD's Department of Chemistry and Biochemistry in 1973 as a full professor and the department's fifth biochemist. In 1985, you received the University's highest faculty award, the Francis Alison Award for "that faculty member who has made the most outstanding contributions to his or her field of inquiry," and in 2002, the University of Delaware honored you with the College of Arts and Sciences Scholar Award. Your many professional awards include those from the American Chemical Society and the American Society of Biochemistry and Molecular Biology.

Prolific researcher and writer, you have published more than 260 articles in premier biochemistry journals and have been distinguished as one of the top 50 most prolific authors in the journal *Biochemistry,* in which you had published 79 research articles by the journal's 50-year anniversary in 2011.

You have provided insight into the biochemical mechanisms of numerous key enzymes, making an invaluable contribution to your field. Your research on the catalytic activity of enzymes in terms of protein structure has important implications for human health. You have studied the enzyme glutathione S-transferase, and your research has illuminated a major factor in why cancer patients develop resistance to chemotherapy treatment. You have also focused on the enzyme adenylosuccinate lyase, the deficiency of which is associated with mental retardation and autism, and you have researched two isocitrate dehydrogenases, which are important to heart health.

Beyond your laboratory research, you have devoted yourself to advancing knowledge and breadth of the scientific community. For 27 years, you served on the editorial board of *Archives of Biochemistry and Biophysics,* and for 17 of those years, you served as Executive Editor. You were Associate Editor of *Protein Science* from 1991 to 1996. You served on editorial boards of yet more journals, including the *Journal of Biological Chemistry* as well as *Protein Expression and Purification*. You are a fellow of the American Association for the Advancement of Science and a past officer of the American Society for Biological Chemists.

Pioneer in your field, not only have you had an impressive career, but you have also devoted yourself to aiding women and minority scientists, both by mentoring students yourself and by serving on committees that are working toward these goals on a larger scale, such as the Committee on Women in Biochemistry and the Educational Affairs Committee of the American Society for Biochemistry and Molecular Biology. You were determined to see the field change from your own first chemistry course, where you were one of only five women in a class of 300 men. And the discipline has changed, for by the time you retired, undergraduate women and men at UD majored in chemistry and biochemistry in nearly equal numbers. The graduate program saw similar changes. Your successes undoubtedly have inspired young female scientists here and in the larger academic arena.

Alfred P. Sloan, long-time senior executive at GM in the early 20th century, once said, "There has to be this pioneer, the individual who has the courage, the ambition to overcome the obstacles that always develop when one tries to do something worthwhile, especially when it is new and different."

Dr. Colman, your pioneering undoubtedly changed and enriched the scientific world in academe; it also has enriched the larger society because of the many contributions that you have made to your field.

Therefore, under the authority of the Board of Trustees of the University of Delaware, I have the pleasure and honor of conferring upon you, Roberta F. Colman, the degree of Doctor of Science and do declare you entitled to all the rights, honors, and privileges to that degree appertaining throughout the world. In testimony thereof, I am pleased to present to you this diploma.

A. Gilchrist Sparks III
May 31, 2014