

Julia Meyers Ross is Professor and Chair of the Chemical and Biochemical Engineering Department at the University of Maryland, Baltimore County. She has a B.S. degree from Purdue University and a Ph.D. from Rice University, both in Chemical Engineering. Dr. Ross maintains a nationally-recognized research program in molecular and cellular engineering with a specific focus on receptor-mediated cell adhesion processes. In particular, her work focuses on delineating the molecular mechanisms responsible for the pathogenesis of staphylococcal infection in the cardiovascular system as a function of the dynamic shear conditions. This research provides new understanding of the complex interplay between bacteria and blood cells in both infection (and subsequent biofilm formation) and thrombosis. In addition, Dr. Ross maintains an aggressive research program in engineering education. As PI on the development of the NSF-funded INSPIRES Curriculum (INcreasing Student Participation, Interest and Recruitment in Engineering and Science), Dr. Ross leads a multidisciplinary team in the creation and implementation of new curriculum modules for technology education at the high school level. A primary goal of the curriculum is to increase awareness of and interest in engineering and science careers among women and minority students. Dr. Ross is a Fellow of the American Institute for Medical and Biological Engineering and is the recipient of a University System of Maryland Regents' Award for Collaboration in Public Service, a NSF CAREER Award and the ASEE Sharon Keillor Award for Women in Engineering Education.

