Prather Biography – November 2021

Kristala L.J. Prather is the Arthur D. Little Professor in and Executive Officer of the Department of Chemical Engineering at MIT. She received an S.B. degree from MIT in 1994 and Ph.D. from the University of California, Berkeley (1999), and worked 4 years in BioProcess Research and Development at the Merck Research Labs prior to joining MIT. Her research interests are centered on the design and assembly of recombinant microorganisms for the production of small molecules, with additional efforts in novel bioprocess design approaches. A particular focus is the elucidation of design principles for the production of unnatural organic compounds with engineered control of metabolic flux within the framework of the burgeoning field of synthetic biology. Prather is the recipient of an Office of Naval Research Young Investigator Award (2005), a Technology Review "TR35" Young Innovator Award (2007), a National Science Foundation CAREER Award (2010), the Biochemical Engineering Journal Young Investigator Award (2011), the Charles Thom Award of the Society for Industrial Microbiology and Biotechnology (2017), and the Andreas Acrivos Award for Professional Progress in Chemical Engineering (AIChE, 2021). Additional honors include selection as the Van Ness Lecturer at Rensselaer Polytechnic Institute (2012), as a Fellow of the Radcliffe Institute for Advanced Study (2014-2015), the American Association for the Advancement of Science (AAAS; 2018), the American Institute for Medical and Biological Engineering (AIMBE; 2020), and the American Institute of Chemical Engineers (AIChE; 2020). Prather has been recognized for excellence in teaching with the C. Michael Mohr Outstanding Faculty Award for Undergraduate Teaching in the Dept. of Chemical Engineering (2006, 2016), the MIT School of Engineering Junior Bose Award for Excellence in Teaching (2010), and through appointment as a MacVicar Faculty Fellow (2014), the highest honor given for undergraduate teaching at MIT.