

Frances Arnold is the Linus Pauling Professor of Chemical Engineering, Bioengineering and Biochemistry at the California Institute of Technology. Arnold pioneered directed enzyme evolution, for which she was awarded the Nobel Prize in Chemistry in 2018 (the first American woman to do so); she has used directed protein evolution for applications in alternative energy, chemicals, and medicine. Arnold was recently appointed to co-chair the President's Council of Advisors on Science and Technology. Among other awards, Arnold has received the Charles Stark Draper Prize of the US National Academy of Engineering (2011), the US National Medal of Technology and Innovation (2011), and the Millennium Technology Prize (2016). She was the first woman elected to all three US National Academies of Science, Medicine, and Engineering and was appointed to the Pontifical Academy of Sciences in 2019. Co-inventor on more than 60 patents, Arnold was inducted into the US Inventors Hall of Fame in 2014. She co-founded three companies in sustainable chemistry and renewable energy (Gevo, Provivi, Aralez Bio) and serves on several public and private company boards. She earned a B.S. in Mechanical and Aerospace Engineering from Princeton University and a Ph.D. in Chemical Engineering from the University of California, Berkeley.