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## Frances Arnold Awarded 2013 Emanuel Merck Lectureship

Emanuel Merck Lectures mark 20th anniversary.



Merck announced that Frances Arnold, Professor of Chemical Engineering, Bioengineering and Biochemistry at the California Institute of Technology (Caltech), in Pasadena, USA, has been awarded the Emanuel Merck Lectureship this year. The 57-year-old professor is regarded globally as the eminent authority in the field of directed evolution and has been recognized with many prestigious honors and awards.

By selecting Dr. Arnold, we are recognizing a very successful scientist. We are looking forward to her lectures in Darmstadt in May, said Dr. Thomas Geelhaar, Chief Technology Officer Chemicals at Merck. Thanks to her scientific approach, Arnold has helped to achieve tremendous advances in the research field of directed evolution. She is a worthy winner of the Emanuel Merck Lectureship, which we have been awarding jointly with the Technical University of Darmstadt for 20 years now."

The prize, which is worth 10,000, will be presented to Arnold on May 27, 2013 at the TU Darmstadt within the scope of a special public lecture. The prizewinner will be holding a lecture starting at 5 p.m. (in the Kekulé Hall of the Chemistry Department) entitled on "Design by Evolution: Rewriting the Code of Life". On the two following days, Dr. Arnold will hold further lectures at the TU Darmstadt and at Merck.

Arnold graduated from Princeton University, New Jersey with a Bachelor of Science in 1979 and was awarded a PhD in Chemical Engineering from the University of California, Berkeley in 1985. She has been conducting research and teaching at Caltech since 1986.

The code of life is like a Beethoven symphony. We have not yet learned how to write music like that. But evolution does it very well. I am learning how to use evolution to compose new music, said Frances Arnold in 2011 on receiving the Draper Prize (often referred to as the Nobel Prize for engineers) for her work using directed evolution to generate biofuels.

Directed evolution is a method used in protein engineering to harness the power of natural selection to evolve proteins, enzymes and nucleic acids with desirable properties in the laboratory (i.e. in vitro). Scientists use random mutagenesis to then select, identify and amplify the improvements achieved. Directed evolution is increasingly being used primarily in biocatalysis and white biotechnology in order to improve the suitability of enzymes for industrial applications.

For more information, please visit [www.merck.com](http://www.merck.com).