

Viola Vogel

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Professor Viola Vogel studied Physics and Biology in Frankfurt, at the Max-Planck Institute for Biophysical Chemistry in Göttingen and in Berkeley before starting her academic career in the Department of Bioengineering at the University of Washington (1991). In Seattle, she was the Founding Director of the Center for Nanotechnology at the University of Washington (1997-2003). She moved to Switzerland in 2004, where she initially joined the Department of Materials. She is now heading the Laboratory of Applied Mechanobiology, is Deputy Chair of the Department of Health Sciences and Technology, and the Founding Director of the new Institute of Translational Medicine at ETH Zurich.

Viola Vogel pioneered the rapidly growing field of mechanobiology and its medical applications as she discovered many structural mechanisms how mechanical forces can turn proteins into mechano-chemical switches. Such mechanisms are exploited by bacteria, as well as mammalian cells and tissues to sense and respond to mechanical forces, and if abnormal, can cause various diseases. Her research was recognized by major awards, including the Otto-Hahn Medal of the Max-Planck Society 1988, the "First Award" from the NIH Institute of General Medicine (1993-98), the Julius Springer Prize 2006 for Applied Physics, the ERC Advanced Grant (2008-13), the International Solvay Chair in Chemistry Brussels 2012, and an Honorary Degree Doctor of Philosophy from Tampere University, Finland 2012. She also serves on various international advisory boards in the fields of nanotechnology and bioengineering, including on the White House panel that finalized the US National Nanotechnology Initiative under the Clinton administration (1999) and on the World Economic Forum Global Agenda Council in Nanotechnology (2014-2016).