



UNIVERSITY OF CAPE TOWN  
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

**DEPARTMENT OF HUMAN BIOLOGY**

## **SPECIAL SEMINAR**

**Professor Viola Vogel**

Laboratory for Applied Mechanobiology  
Department Health Sciences and Technology  
ETH Zurich, Switzerland

will speak on

### **Mechanobiology: From Bacterial Infections to Stem Cells**

DATE: Friday, 6 May 2016  
TIME: 13h00-14h00  
VENUE: Wolfson Pavilion Lecture Theatre,  
Faculty of Health Sciences

**ALL WELCOME**

Host: A/Prof Thomas Franz

This seminar is supported through a grant from the South African National Research Foundation.

**Enquiries:**

Ms Busi Booi-Shologu, tel 650 3093, [bme@uct.ac.za](mailto:bme@uct.ac.za)

Biography overleaf

## Biography of Professor Viola Vogel



Viola Vogel is a Professor and Vice Chair of the Department of Health Science and Technology at the ETH Zürich, Switzerland, and is heading the Laboratory of Applied Mechanobiology. Trained as a Physicist and with her graduate research conducted at the Max-Planck Institute for Biophysical Chemistry, she spent two years as postdoctoral fellow at the University of California Berkeley. As faculty member, she joined the Department of Bioengineering at the University of Washington/Seattle in 1990 and moved there through the ranks to Full Professor. She was the Founding Director of the Center for Nanotechnology at the University of Washington (1997-2003) prior to her move to Switzerland in 2004, where she initially joined the Department of Materials. She serves on various advisory boards worldwide and has received major honors and awards, including the Otto-Hahn Medal of the Max-Planck Society 1988, the "First Award" from

the Institute of General Medicine (National Institutes of Health USA, 1993-98), the Julius Springer Prize 2006 for Applied Physics, the ERC Advanced Grant (European Research Council 2008-13), the International Solvay Chair in Chemistry Brussels 2012, and an Honorary Degree Doctor of Philosophy from Tampere University, Finland 2012. She also served as a Rapporteur for the Max-Planck Society, Physical-Chemical Technical Division (2012-2013), as Panel Member Representing the European Research Council at the World Economic Forum in Davos (2013), as Jury Member for the Queen of Elizabeth Prize for Engineering (2015), and is a Member of the World Economic Forum Global Agenda Council in Nanotechnology (2014-2016).

In her research, she exploits nanotechnology tools to decipher how bacteria and mammalian cells and micro-tissues exploit mechanical forces to recognize and respond to material properties and their native environments. Her discoveries in single molecule and cell mechanics and how protein stretching switches their function, as well as in the field of mechanobiology have a wide range of technical and medical implications. In collaboration with clinicians, several technologies are currently carried towards preclinical studies.