

"Soft-Matter Seminar"

Subretinal Electro-Stimulation of the Retina: Results from the First Human Trial and Future Perspectives

Robert Wilke MD, MSc
University of New South Wales, Sydney, Australia
University of Tuebingen, Germany

Abstract:

The German Sub-Ret Consortium based in Tuebingen has been developing an implantable vision prosthesis for more than 10 years. In 2005 the worldwide first clinical trial of its kind started to test the efficacy and safety of this device in blind human volunteers. So far 11 blind volunteers have been successfully implanted and carried the device for up to 2 years. It could be demonstrated that blind people can regain some visual function using this device, up to a degree of spatial resolution that enabled reading of large letters. Here results in terms of efficacy of that device to restore visual functions are summarized with respect to prerequisites to render meaningful visual percepts. In that light, limitations of current technologies as well as of our basic understanding of principles of neuro-stimulation of a highly complex neural tissue as the retina, are discussed.

Donnerstag, den 29.04.2010
14:00 Uhr
Raum PH 3344

Prof. Dr. Roland Netz
Physik-Department T 37, Technische Universität München, Theoretische Physik
85747 Garching