

Nanotechnology for Life Science

<u>JPK Instruments contact:</u>
Claudia Boettcher: +49 30533112070

Media contact:

Jezz Leckenby: +44 (0)1799 521881

JPK's tenth annual International Symposium on SPM & Optical Tweezers for Life Sciences was a great success

Berlin, 18th October 2011: JPK Instruments recently hosted their tenth annual international symposium on the applications of scanning probe microscopy (SPM) and optical tweezers. Held this month in the historic Umspannwerk Ost in Berlin, the meeting brought together more than 100 scientists from around the world. The combination of papers and posters inspired excellent discussions as attendees presented their results and shared scientific know how in a relaxed and informal atmosphere.

This year saw a first presentation from a Chinese user group (Professor Wenke Zhang of Jilin University) and, with visitors coming from all corners of the globe, it felt more international than ever. The poster sessions are always popular with presenters vying to be selected as the winner as judged by their peers. The standard was higher than ever.

The SPM papers saw the emergence of a new theme – cellular spaghetti – with three speakers describing how it is possible to probe and follow processes in nuclear pore complexes. Probing molecular forces is becoming a very popular topic not just in research but is being adapted to practical problems encountered in the field of pharmaceutical science and nanomedicine.

The 2011 SPM poster award went to Huong Nguyen, a PhD student at the Max-Planck-Institute for Polymer Research in Mainz. She showed how she has used atomic force spectroscopy to study interactions on the single molecule level. She demonstrated piconewton resolution in a study of the rupture force of single small drug molecules binding to a split aptamer. The work illustrated how to overcome sample preparation through immobilization of both components of the aptamer to the AFM probe and the sample surface.

The Optical Tweezers poster award saw a battle between two researchers from the BIOTEC TU Dresden and for the second year running, Anita Jannasch emerged as the winner with her work presented jointly with Mohammed Mahamdeh. The study looked at the inertial effects of a small Brownian particle and the ability to track and measure the colour of thermal noise intensity. The potential of this work shows possibilities for application in the development of advanced sensors.

Presenting the awards, Torsten Jähnke, Chief Technical Officer of JPK, said "the standard of this year's talks and posters was excellent. I was excited to see another exciting group of young researchers presenting their posters at our tenth year of workshops. It shows that where there is good science being presented, we will continue to attract a big audience."

To learn more, visit the NanoBioVIEWS $^{\text{TM}}$ web site, www.nanobioviews.net. The abstracts of the papers and posters are now available to study online or may be downloaded in PDF format. For more details about JPK's specialist products and applications for the bio and nano sciences, please contact JPK on +49 30533112070, visit the web site: www.jpk.com or see more on Facebook: www.jpk.com/facebook.



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Attachment:



Professor Roderick Lim presenting his research at

JPK's 2011International Life Sciences Symposium

About JPK Instruments

JPK Instruments AG is a world leading manufacturer of nanoanalytic instruments that enable unparalleled access at the nanotechnology level. JPK was recognized as Germany's fastest growing nanotechnology company in 2007 and 2008 (Deloitte). The product portfolio is based around atomic force microscopes and optical tweezers for a wide range of applications, from soft matter physics to nano-optics, from surface chemistry to cellular and molecular biology. Leading-edge instruments from JPK are used by the most renowned research institutes across the world. Headquartered in Berlin and with operations in Dresden (Germany), Cambridge (UK), Singapore, Tokyo (Japan) and Paris (France), JPK maintains a global network of distributors and support centers and provides on the spot applications and service support to an ever-growing community of researchers.

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JPK Instruments AG
Bouchéstrasse 12
Haus 2, Aufgang C
Berlin 12435
Germany
T +49 30533112070
F +49 30 5331 22555
www.jpk.com
cl.boettcher@jpk.com

Talking ScienceLimited
39 de Bohun Court
Saffron Walden
Essex CB10 2BA
United Kingdom
T +44 (0)1799 521881
M +44 (0)7843 012997
www.talking-science.com
jezz@talking-science.com