Single Molecule Community Met at PicoQuant's Annual Workshop

From September 4 to 6 more than 100 international researchers gathered at PicoQuant's annual workshop on "Single Molecule Spectroscopy and Ultrasensitive Analysis in the Life Sciences" in the German capital city of Berlin. The participants enjoyed 37 highly up-to-date talks, including nine lectures given by renowned invited speakers, and two poster sessions with a total of 36 posters. A reception and a dinner gave attendees additional opportunities to discuss latest results, projects and ideas.

Beside the latest developments in single molecule investigations using methods such as FLIM, FRET, and FCS, the workshop also covered recent trends in super-resolution microscopy. Presentations included applications based on STED, PALM, STORM, and SOFI as well as first examples using the new method of Imaging Scanning Microscopy (ISM) by Olaf Schulz (lab Jörg Enderlein, University of Göttingen). New developments in the field of single molecules were amongst others presented by Vahid Sandoghdar from the Max Planck Institute for the science of light (Erlangen) who introduced fluorescence-free detection, spectroscopy, and also tracking of nano-objects. The workshop also showed that single molecule applications break into new research fields. This was highlighted by a reinterpretation of classical ensemble measurements on the single molecule level (Arina Rybina, lab Dirk-Peter Herten, University of Heidelberg) as well as an investigation of novel materials like conjugated polymers by single molecule spectroscopy (Jan Vogelsang, University of Regensburg).

As in previous years, PicoQuant awarded a special prize for the best student talk intending to support young researchers in their scientific work. The prize of 750 Euro was awarded to David Bauer, University of Oxford, for his presentation on specially designed nanofluidics to enhance single molecule DNA imaging in order to detect genomic structural variations in humans.

In his concluding remarks, Don Lamb, professor at the University of Munich, summarized that "the workshop has a comfortable size and gives students a chance to interact with experts in the field. Especially the student talks often prove to be very good as they are well prepared and include fresh data from the people that do
actually collect the data." The annual workshop again proved to be one of the most important venues worldwide for the discussion of the latest developments in ultrasensitive optical detection and microscopy down to the single-molecule level.

In 2014, the single molecule workshop will be held for the 20th time. From **September 2 to 5, 2014** PicoQuant will celebrate this anniversary with a special extended workshop program, including plenary lectures given by Nobel Prize Winner for Chemistry Roger Tsien who will present work on green fluorescent proteins, and by Stefan Hell who will present his latest results on using nanoscopy with focused light. Eigtheen further high-ranking speakers have confirmed their attendance and will give talks on their recent findings and developments.

**More information:**
http://www.picoquant.com