

11th International Workshop on Biosensors and Bioanalytical Microtechniques for Environmental, Food and Clinical Analysis in Regensburg, Germany

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From 26 September to 30 September 2015, the 11th International Workshop on Biosensors and Bioanalytical Microtechniques for Environmental, Food and Clinical Analysis (BBMEC) took place in Regensburg, Germany (Fig. 1). Since the first meeting in 1994 in Paris (France) organized by Marie-Claire Hennion, BBMEC has evolved from a mainly European-based biosensor conference to a global conference. It gathers about 150 researchers from over 20 countries. The conference was organized by the Institute of Analytical Chemistry, Chemo- and Biosensors (IACCB) headed by Antje J. Baeumner together with the International Association of Environmental Analytical Chemistry (IAEAC). For the first time a pre-conference that specifically targeted graduate students and postdocs was organized by graduate students from the IACCB following a concept used with successful Gordon Research Conferences.

Aims and topics The conference was designed with single sessions with special attention to the presentation of unpublished research. The high importance and prominence of the poster session was ensured by allocating 4 h of poster sessions spread over 2 days. This allowed ample time for networking and in-depth discussion. Additionally, young researchers had the opportunity to present their results in oral presentations and discussions during the pre-conference. Talks were given on the following topics with innovation as a common thread:

- Novel concepts in biorecognition, transduction, signal amplification and sample preparation

- Lab-on-a-chip, microTAS, biosensors
- Nanomaterials
- Microtechniques
- Surfaces and interfaces
- Screening
- Array technology
- Imaging
- On-site analysis
- Label-free, electrochemical, optical, mass-based, magneto transducers
- Application to clinical, food, environmental and processing challenges

Scientific program Talks from world-renowned speakers were accompanied by two poster sessions and various social mixers on-site allowing for networking and scientific discussions. On the basis of posters, all conference participants selected three promising young scientists to give talks that concluded the conference. Prizes for the five best posters were awarded. Two of these prizes (“Competitive biobarcode assay for detection of small analytes” by Marta Broto and “The monitoring of solid-phase recombinase polymerase amplification (SP-RPA) as a DNA detection tool” by Johnathan Sabaté del Río) were sponsored by the journal *Analytical and Bioanalytical Chemistry*. Overall 45 oral presentations were given and 90 posters presented over 4 days. Young scientist presentations were complemented by a talk from keynote speaker Karsten Haupt (University of Technology of Compiègne) presenting molecularly imprinted polymer nanogels and their applications in biosensing and imaging. Additionally, Dr. Wolfgang Wachter (German Science Foundation, Bonn) informed the pre-conference participants about the various funding instruments for international research and particularly emphasized the support of early career researchers. The main conference was kicked off by keynote speaker

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Fig. 1 Group picture of the International Workshop on Biosensors and Bioanalytical Microtechniques for Environmental, Food and Clinical Analysis



Joseph Wang (University of California, San Diego). His nanomotor-based biosensing and new motion-based sensing approaches rely on the capabilities of modern nano/microscale motors. Jiri Homola (Institute of Photonics and Electronics of the CAS, Prague) illustrated recent advances in optical affinity biosensors based on surface plasmons. Andrew Allington (University of Texas, Austin) presented a talk entitled “Signaling: creating something from nothing, or why equilibrium is overrated”. Lisa Hall (University of Cambridge) depicted bio-inspired modification of semiconducting nanoparticles combined with a mobile phone platform.

Conference highlights The newly established pre-conference along with the whole scientific program of the conference

was of the highest standard. All participants appreciated the all-inclusive nature in a single location including the conference room, poster sessions, lunch breaks and various mixers. Finally, two events from the social program stand out: Participants had the possibility to join a guided tour of Regensburg and discover the medieval centre of the UNESCO World Heritage Site city. The conference dinner took place in the historical Salzstadel at the Steinerne Brücke, the oldest still preserved bridge in Germany (Fig. 2).

Future and related conferences The next BBMEC will take place in Rome, Italy in 2017 and is organized by Roberto Pilloton.

Fig. 2 Conference dinner in the historical Salzstadel

