

# 2. BIOSENSOR SYMPOSIUM TÜBINGEN 2001

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## **Biosensor 2001 – a Retrospect and Foresight**

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Though having a short tradition of only one preceding conference in series, a surprisingly large number of over 300 scientists from Germany and other German-speaking nations attended the 2. BioSensor Symposium 2001, held from 1<sup>st</sup> to 3<sup>rd</sup> of April 2001 at the University of Tübingen. The symposium is the only German-speaking forum of its kind and provides a unique setting for new research, trends, and perspectives to be shared with peers from both industrial and educational institutions. As the name implies, biosensor technology is a marriage between biochemistry and analytical chemistry. In addition, the applications of biosensor research extend to a broad range in science such as environmental chemistry, clinical medicine, and genetic research. To span such a broad field of biosensor research, 7 lecture sessions covered the topics "High Throughput Screening", "DNA Biosensors", "Electrochemical Sensors", "Data Mining and Bioinformatics", "Biological Biosensors", "Immunoassays and Immunosensors" and "Detection by Fluorescence". Each session started with a tutorial giving a short survey. Altogether, 29 lectures and 75 poster presentations were contributed to the symposium. In addition, representatives of 17 industrial companies demonstrated the latest developments in biosensor equipment and devices. As the booths were open everyday from morning until evening, discussions developed spontaneously in front of the exhibited equipment, especially during the coffee breaks.

The plenary speaker was Prof. Walter Bodemer from the Federal Office for Infectious Animal Viruses in Tübingen. His lecture entitled, "Prion diseases in humans and animals", presented a medical perspective of BSE research. Prof. Bodemer argued that biosensor research groups need to focus on novel early warning systems. Currently, the available technology for detecting prions still requires intensive research before biosensors can be introduced into the market. Detection systems based on biomolecular interactions are important candidates because of their high selectivity. In addition, the systems can be easily adapted to an array platform, e.g. gene analysis, that greatly increases analysis efficiency. However, it is not yet clear whether biosensors will be competitive for prion detection. In any case, biosensors are highly useful for specific problems and will, at least, find a niche in the field.

At the end of the symposium, poster awards were given to Rüdiger Benters (Bremen), Michael Blank (Tübingen) and Martin Braun (Erlangen). These posters are presented, besides of many other posters shown during the symposium, in a "virtual poster exhibition" [a]. Further information concerning the symposium, including video highlights, pictures and a link to the portal hosting the proceedings can be

found at the BioSensor 2001 website [a]. Finally, the scientific committee announced that the next symposium of this series, the BioSensor Symposium 2003, would be held at the University of Potsdam and organized by Prof. Frieder Scheller. Potsdam is a center for biosensor research, which should provide an excellent environment for the next symposium.

The publication procedure of the proceedings of the BioSensor 2001 follows a new approach: All proceedings are published electronically by the Universitätsbibliothek Tübingen following an initiative of 12 organizations "Information und Kommunikation, IuK" [b]. The electronic publication offers several advantages to the scientific community:

As soon as the referees have accepted a contribution it will be published without the need of waiting for the entry of all other proceedings. The publication of the proceedings as PDF documents gives the chance of presenting images and figures in color and of inserting interactive hyperlinks. The access will be free to the public, rendering the need of purchase of a special journal issue superfluous and enabling everybody to print out the proceedings right away as often as required. The publications will be searchable by various Internet search engines and additionally the Universitätsbibliothek Tübingen will offer us the possibility of all electronic proceedings being citable. On entry of all proceedings, an ISBN number will be requested offering the same citability as a printed proceedings issue. All proceedings are available via a user-friendly portal [c]. The portal offers access to the abstracts and to the full text documents (PDF) subdivided into three categories: Proceedings, tutorials and conference contributions (only from authors not publishing a proceeding or tutorial). At the moment of writing this editorial altogether more than 90 papers are available and the number is still increasing. From the technical point of view the portal is a frontdoor to a publication server (Tobias-lib; OPUS), which actually hosts the proceedings. This server is connected to other servers located at several other academic libraries forming a network of retrievable information. Further technical information is provided at [d].

It is our hope that the results of this new approach of electronically publishing the conference proceedings is scientifically valuable and serves the aim of promoting research and development in the field of Biosensors.

Last but not least, we would like to acknowledge the Universitätsbibliothek Tübingen for hosting the online proceedings and especially Mr. Istvan Bogнар for programming the portal [c], which provides a user-friendly access to all proceedings.

[a] <http://www.barolo.ipc.uni-tuebingen.de/biosensor2001/>

[b] <http://www.iuk-initiative.org/>

[c] <http://w210.ub.uni-tuebingen.de/portal/BioSensor2001/>

[d] <http://www.uni-tuebingen.de/ub/elib/tobias.htm>