

Report of the DAC Bioanalytics study group to the 2011 AM

The aim of the Bioanalytics study group is to search ways for bringing closer the analytical and bioanalytical chemistry community. This has proved to be a formidable task because a community of bioanalytical chemists does not appear to have formed yet. Many biochemists do analytical work but their emphasis is mostly on biochemistry itself. On the other hand there has been a growing trend for chemists and analytical chemists to do more and more bioanalytical work. Certain groups of (analytical) chemists have had a natural tendency for this, e.g., food chemists and forensic chemists.

At the AM 2010 our study group has been joined by three new members: professors Günter Gauglitz and Raluca and Koos van Staden.

Our interviews with some prominent bioanalytical chemists still show that bioanalytical chemists are not organized like analytical chemists in the sense that they organize mainly specialized meetings (e.g., proteomics or genomics or metabolomics), but do not seem to have meetings with wider scope or a wider cover organization. In the course of the past 12 months one of us attended two meetings with particular relevance. One was the 7th International Interdisciplinary Meeting on Bioanalysis (CECE 2010). This is a traditional and small meeting but it collects regularly some of the prominent bioanalytical chemists (particularly those working with electrophoresis) from Europe. The success and atmosphere of this meeting strengthened the feeling that some specialist groups in bioanalysis do not prefer a large, comprehensive bioanalytical meeting instead of their smaller, more specialized meetings. The other conference was the 4th European Conference on Chemistry for Life Sciences. This series of meetings is coorganized by the EuCheMS Division of Chemistry in Life Sciences. This is a medium size conference with perhaps 300 participants. Surprisingly, bioanalytical chemistry is not represented at all in this congress. This allows the conclusion that if any bigger European conference may attract bioanalytical chemists, this could be Euroanalysis. Indeed, Euroanalysis 2011 in Belgrade seems to have attracted quite a few bioanalytical presentations. In DAC all of us should also strive to include bioanalytical sessions in our national meetings. This year, for example, the joint Annual Meeting of the Slovak and Czech Chemical Societies in the HighTatras, 5 to 9 September 2011, will have a special lecture session on analytical methods for samples of biological origin. At the Hungarian National Chemistry Meeting of 2011 one of the four plenary lectures also dealt with bioanalysis for health.

This year's Analytical Column (attached) has been devoted to bioanalytics. It presented the views which had been formed in DAC during the past few years. Hopefully its publication in several analytical journals contributes to the visibility and acceptance of the work done in DAC.

Due to a proposal by professor R. Salzer the education of bioanalytical chemistry in the usual analytical curricula will be presented by one of us at Euroanalysis 2011 in Belgrade

during a session devoted to teaching analytical chemistry.

In IUPAC the Orange Book (OB) project meeting and the ACD committee has evaluated positively the work done until now on the OB chapter on Bioanalytical methods. Professors Labuda and Gauglitz participate in this work. The bioanalytical chapter as the whole book should be on methods, not applications (as it is with Bioanalytical in the present edition of the OB). Some applications will be mentioned in examples following the terms definitions. The terms of new bioanalytical methods should be addressed together with old terms of immuno and enzyme-based methods already approved by IUPAC. Professor Labuda has prepared a subchapter with the terms of immobilized receptors and biosensors based methods already approved by IUPAC in Pure Appl. Chem. reports. However, methods for different “omics” need to be considered as well. There is an urgent need to form a task group of experts for doing this work.

Last year we began to set up a European experts list in bioanalytical chemistry (see our 2010 report). This time we attempted to find an automatic method to continue this work. We have found, that the site BiomedExperts (owned and operated by Elsevier, Inc.) offers lists of “top authors” in different fields. A number of such lists concerning bioanalysis is attached to our report with an appropriate caveat to avoid misunderstandings. We have not separated European scientists from others on the lists, but we may see with satisfaction the relatively large number of familiar European names. On the other hand we need to be warned that the experts on these lists are often not analytical chemists, but rather biologists or medical researchers.

This annual report is subject to oral additions by the members of the group at the annual meeting.

Note: ATTACHMENTS