

Report of the DAC Bioanalytics study group to the 2009 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 the 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.

Earlier we reported that several analytical journals have strongly moved into the direction of bioanalytical chemistry, and that a large fraction of the authors publishing bioanalytical papers in analytical chemistry journals appears to come from outside the traditional analytical workplaces. These trends appear to continue. Moreover we have observed that important journals which are apparently dealing with other areas than analytical chemistry have moved deeply into the analytical field. One such example is Nature Methods.

Last year we proposed that DAC members and their conferences should make efforts to have bioanalytical chemists involved. The organizers of Euroanalysis 2009 have certainly achieved success in this area. There will be three sessions on bioanalysis in Innsbruck, involving some twenty lectures and there are about as many bioanalytical lectures in the other sessions. One of the prizes will be also given to a bioanalyst. Similarly the HPLC 2009 congress organized by GDCH in Dresden was a showcase of many bioanalytical lectures.

We had also suggested to make contacts to FABIAN, an industrial discussion group on bioanalysis in the pharmaceutical industry. We have contacted them during the year and they assured us that they are open to further industrial members we might send. In practice, however, this turned out to be not possible. An industrial analytical chemist who approached them on our suggestion was essentially turned off.

In IUPAC we also try to strengthen the appreciation of bioanalytical chemistry. Bioanalytical chemistry is considered among emergent issues of the Analytical Chemistry Division (ACD) of IUPAC. Indeed at the 2009 IUPAC Congress in Glasgow the proportion of biochemistry presentations was quite high. In the ACD, work on a new edition of the Orange Book has just started and Jose Pingarron and Jan Labuda are responsible for the consideration of a separate chapter on bioanalytical methods among methodological sections of the Orange Book. Jan Labuda, the titular member of the Analytical Chemistry Division of IUPAC (2006-2009) and chairman of the task group of the IUPAC project No. 2006-026-1-500 entitled „Electrochemical DNA-based biosensors: terms and methodology“, has also organized a project workshop in Seville, Spain, on 6 September, 2008 and lead the preparation of the IUPAC technical report. The project has appeared as an addition to the IUPAC Technical Report “Electrochemical

biosensors: recommended definitions and classification” published in 1999 in respect to a significant progress in the development and application of electrochemical sensors based on deoxyribonucleic acid and other nucleic acids including aptamers and peptide nucleic acids.

In Hungary, at the annual assembly of the Hungarian Academy of Sciences, a scientific session was organized this year which gave an overview of modern analytical chemistry. To emphasise the role of bioanalysis, one of the four lectures was devoted to mass spectrometry in proteomics.

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