

Teamwork

- Issue No. 8 - Jul 2004 -

[< Issue No.7](#)

[> Issue No.9](#)

This issue of 'Teamwork' includes:

- [News from the Division Committee](#)
- [Core Activities](#): Kip Powell presents the ACD Communication Team
- [Emerging issues in developing countries /emerging analytical communities](#): a word from Jan-Åke Jonsson
- [Emerging issues in analytical chemistry](#): Ryszard Lobinski presents the 'metallomics' project
- [Results of the last contestable funding round](#)
- [Ideas for new projects](#)

News from the Division Committee

Breaking news

ICSU has announced the outcome of applications for its Grants Programme for 2005. Following a period of intensive consultation and development IUPAC submitted the proposal "**Measurement traceability - A Fair basis for Trade**". This joint application was crafted by members of the WPQA (Paul De Bièvre and Ales Fajgelj), and representatives of IUPAP (Leslie Pendrill) and the United Nations Industrial Development Organisation (Otto Loesener). Unfortunately the application was not successful due to a drastic reduction of the available budget and number of projects. The Division is hugely indebted to the writers for the immense amount of thought and planning that went into this application. We hope that the understanding and resolve that has developed with our co-applicants (IUPAP and UNIDO) during this process will bear fruits in future endeavours.

> [see related IUPAC project #2001-010-3-500](#)

Other news

During the ACD Committee meeting in Vienna it was agreed to focus the Division's work on 'core activities' and 'emerging areas in analytical chemistry' (see [Teamwork N° 7](#)). Teams with responsibility for each have been established. We are working on Terms of Reference and scope of activities through internal discussions within the Teams. See below the presentation of the Communication Team. Others will follow in the next *Teamwork* issues.

The ACD webpage is undergoing refreshment. The [minutes](#) of the Vienna meeting have been posted. The presentations made by each of the invited speakers at the joint ACD, WPQA, IAEA workshop in Vienna on "Emerging issues in metrological traceability" can be found at www.iupac.org/divisions/V/news/040217.

The position responsibility descriptions for Division committee members, revised after the Vienna meeting, can be found at www.iupac.org/divisions/V/membership/info.html. The Web page of the Division is our visiting card to the world. Any comments on how to improve it are much appreciated.

The DP has proposed a series of articles in *Chemistry International* pertinent to one of IUPAC's goals and has identified "emerging needs in the developing countries" as the first topic. The articles will present/evaluate the needs of individual countries and sub-continent - matters related to infrastructure,

trade barriers, education, laboratory facilities, green chemistry issues etc. They will advertise relevant IUPAC projects in process or highlight completed projects which have the potential to benefit developing countries. Some six articles have been 'promised' by Division V and WPQA members for a series that will probably start next February. An invitation to contribute has been extended to other Divisions and Operational committees. The series will underline one of the key goals of IUPAC: "to foster communication amongst individual chemists and scientific organisations, with special emphasis on the needs of chemists in developing nations".

Core Activities: The ACD Communication Team

The Team consists of Kermit Murray, Jaya Arunachalam, Kazuko Matsumoto, Ryszard Lobinski, Zhifang Chai and Kip Powell (coordinator). They have grouped their proposed activities under 'continuing' and 'new initiatives'.

Continuing activity will include: Presenting ACD activities in *CI*; Producing '*Teamwork*'; Review of project proposals in terms of maximizing dissemination; Use of 6-monthly Project Reports to identify new opportunities for dissemination, conference presentations etc.

New Initiatives will include:

(a) Promoting the needs of developing nations. We plan a series of articles for *CI* to highlight needs of developing countries and initiatives that respond to these.

(b) Improved use of the web. Use the web to (a) link ACD with details of sponsored conferences, workshops etc.; (b) disseminate information coming out of these; (c) improve communication with/from user groups. The use of on-line document mark-up for feedback on IUPAC draft Recommendations is being evaluated.

(c) Improve ACD links with national chemical societies. This includes drafting a generic document on ACD and IUPAC that can be adapted for use in regional chemical society publications.

(d) Improve communication with editors of key journals for publicity of Recommendations, vector articles, and to promote use of IUPAC Terminology.

(f) Publicity material for Congress, GA and IUPAC-sponsored conferences. This includes the ACD mini-symposium for the next GA; ACD project posters for the GA; revision of the power-point presentation to highlight ACD activities.

Emerging issues in developing countries

Jan-Åke Jonsson coordinates the Team which will focus on collecting ideas for activities to promote analytical chemistry and assist analytical chemists in developing countries.

One important partner is SEANAC (Southern and Eastern African Network on Analytical Chemist) (www.seanac.org), an Associated Organisation of IUPAC. From SEANAC (via Dr Nelson Torto) a number of suggestions have been received: support of lectureships, compilation of a data base on expertise, a workshop, etc.

The team will coordinate and contribute to articles for *Chemistry International* on "Emerging needs in developing countries" and has some provisional topics that could be developed for such articles. One of the missions of the team is to follow the progress of the joint IUPAC-IOCD project "Standardization of Analytical Approaches and Analytical Capacity - Building in Africa" in which several of the task group members are involved. [See below.]

Any help is more than welcome. People interested in this area are asked to contact Jan-Åke directly at [<jan_ake.jonsson@analykem.lu.se>](mailto:jan_ake.jonsson@analykem.lu.se).

Emerging issues in analytical chemistry: metallomics

Metal ions at the trace and ultratrace levels are widely utilized by biological systems in fundamental processes such as signalling, gene expression, and catalysis. Therefore, the chemistry of a cell needs to be characterized not only by its characteristic genome in the nucleus and a protein content, a proteome, but also by the distribution of the metals and metalloids among the different species and cell compartments. The understanding of the mechanism is of immense interest for drug development and screening of combinatorial syntheses.

The advances in analytical instrumentation, especially in mass spectrometry, have enabled access to information on the identity and quantity of the metal species in biological systems at the molecular level. This has suddenly resulted in the proliferation of new terms related to analytical chemistry of trace metals in biology and medicine: metallome and metallomics, metalloproteomics, metallo-metabolomics, ionomics, heteroatom-tagged proteomics not to mention but a few of them. On the other hand, the number of mass spectrometric techniques available creates confusion in terms of which technique should be used to which analytical task.

Therefore it is a matter of interest for ACD to define the terms in this emerging area and to critically evaluate the role of analytical tools in the context of quality of results obtained. The related projects include: the definition of terms related to speciation analysis ([PAC, 2000, 72, 1453-1470](#)) and Terminology in mass spectrometry, recently approved under the coordination of Kermit Murray ([IUPAC project 2003-056-2-500](#)).

New ACD Funded projects, May 2004

In its April/May funding round the ACD voted strongly in favour of supporting the project "Standardization of analytical approaches and analytical capacity building in Africa". This is an inter-Divisional project with the Division for Chemistry of the Environment (DCE). The contribution by the ACD will be \$5000, half of the total of \$10000 requested from IUPAC. Final approval and commencement of the Project awaits a favourable decision from the World Bank and UNESCO who will be the major sponsors (\$200000).

Another project supported by the Division is "[Terminology on separation of macromolecules](#)". This is an inter-Divisional project with Division IV, Macromolecular Chemistry. Division IV is the 'lead Division'. The ACD has committed \$1500 to this project.

The Division officers have considered support for the inter-Divisional (I, III, V) project on "Reference Methods, Standards and applications of photoluminescence" (San Roman and Brouwer). This request was 'out-of-cycle' with the Division's funding round so advice was taken from 4 Division V reviewers. Division III (Organic and macromolecular) is the 'lead Division'. The ACD will contribute \$2500.

New Ideas for new projects

The next issue of *Teamwork* will feature ideas that have been suggested for new projects. If you would like to make suggestions for inclusion in that list please let the editor of *Teamwork* know.

[Ryszard Lobinski](mailto:ryszard.lobinski@univ-pau.fr)
ryszard.lobinski@univ-pau.fr