Teamwork

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This issue of 'Teamwork' includes:

We say Thank you!

As this IUPAC biennium draws to a close it is time to acknowledge the service of ACD members who are retiring. Folke Ingman, Günter Gauglitz and Vladimir Kolotov have completed their terms of service.

Folke Ingman was Division President for 4 years through the time leading up to, then implementing, the change from the Commission-based system to the Project-driven system. We warmly acknowledge the contribution that his leadership made to the present structure and modus operandi of the Division.

Günter Gauglitz represented the interests of Spectroscopic Methods in Analytical Chemistry (2000-2003). During his time on the ACD he worked on the project series 'Laser-based molecular spectrometry for chemical analysis: Absorption'. He also hosted the 2002 meeting of the ACD in Tübingen.

Vladimir Kolotov represented the interests of Radiochemistry and Radioanalytical Methods. Looking at the current ACD portfolio of projects, Vladimir will be involved with the Division for some time yet as he chairs the Project 'Low activation materials for Fusion Technology: State and Prospects' and is a member of the Task Group chaired by Mauro Bonardi (see below). His Project with F. De Corte 'Compilation of k0 and related data for NAA in the form of an electronic database' will shortly be accessible via the web.

We say Welcome!

There has been some 'redistribution of people between TM and AM positions but in addition we are very pleased to welcome two new AM and three new TM, each of whom is already actively involved in, or developing, IUPAC projects!

Kermit Murray (Louisiana State University) joins us as an AM who has special interests in applications of mass spectrometry. He was a "young" observer at the GA in Ottawa, but we didn't let him go! He already has his teeth into developing a project proposal on 'Standard Definitions of Terms Relating to Mass spectrometry'

Mauro Bonardi (INFN - Milano Accelerators and Applied Superconductivity Laboratory, and Universia' degli Studi di Milano) joins us as a TM with responsibilities for 'Nuclear Methods'. Mauro is Task Group leader on the recently funded project 'Terminology, quantities, and units concerning production and applications of radionuclides in radiopharmaceutical and radioanalytical chemistry'.

Zhifang Chai (Institute of High Energy Physics, Chinese Academy of Sciences) joins us a new AM. He is actively working on developing a project proposal on 'A critical assessment of Nuclear Analytical Techniques for quantitation of inorganic species in biological samples'. Chai and Mauro are communicating on this project!

Marja-Liisa Reikkola (University of Helsinki) is a new TM and brings with her expertise in separation science (capillary electromigration, field flow fractionation, separation mechanisms) and extraction techniques and analytical techniques consistent with the practice of 'green chemistry'. She is currently on the task group for the project 'Analytical electromigration techniques'.

Elias Zagatto (University of São Paulo) joins us as a new TM with particular interests in flow methods of analysis. Elias chaired a task group on the project 'Information essential for characterising a flow-based analytical system' (published in PAC, 2001). He is currently developing a project proposal on 'The use of terms pre-concentration and concentration in different branches of analytical chemistry'.

ACD Membership 2004-5

The Table at the end of this Newsletter gives the complete list of TM, AM and NR for the Analytical Chemistry Division, 2004-5. We are very pleased that our membership embraces 22 countries - almost half of the 45 member countries of IUPAC! We hope to feature 'Biographic notes' for the 'new names' on this list in subsequent issues of ***Teamwork***.

Teamwork **invited** ***Folke Ingman*** to share his personal perspective of IUPAC, a perspective that spans 23 years of service. Folke writes:

My first acquaintance with IUPAC came when the General Assembly met at Davos, Switzerland during the summer of 1979. Janos Inczédy phoned to ask whether I would be interested in joining Commission V.1 (General Aspects of Analytical Chemistry). I became an Associate Member of that Commission in January 1980 and the first meeting of the Commission which I attended was held at Veszprem by Lake Balaton (Hungary) in August.

IUPAC transcends the 'iron curtain'

In the 1980's, the iron curtain was very much a reality. Scientists in the eastern part of Europe had few possibilities to meet with their western colleagues. They never knew whether they would be allowed to take part in the conferences they wanted, sometimes they got permission at the last moment, sometimes they did not. IUPAC, however, was recognised by the authorities as an important body and IUPAC meetings provided opportunities for direct personal contacts between scientists from the eastern and the western world.

Most of the General Assemblies were arranged in western countries. The even year meetings, however, at least in V.1, were usually held in different places in Eastern Europe. By doing so we could be pretty sure that all members could attend. Also, since there were many palaces and manors belonging to the Academies of Sciences of those countries, the meeting costs could be kept at a very reasonable level. Being together in one place during the whole time of the meeting fostered friendship between commission members and provided good working conditions.

IUPAC Commissions: a birthplace for project ideas.

Commission Members coming from different parts of the world and having slightly different specialities ensured that discussions about new project ideas were thorough and fruitful. This is perhaps the most vulnerable part of the new organisation. I have the impression that, at least in Commission V.1, most of

the work was done either just before the meetings, during the meetings or just after them. This of course meant that a project took a long time to complete - but on the other hand that it had been thoroughly discussed by the whole Commission at least at one but often at several meetings before publication.

A greater responsibility for Divisions

Where do new project ideas come from in the new (project-driven) system? To be able to propose a project one should have a working knowledge of the way IUPAC works. The project proposals we have seen until now in the new organisation almost invariably came from former Commission Members. I recall only one idea proposed by a Journal Editor.

I believe that this is the greatest challenge for IUPAC in the coming years. A project driven system without projects is bound to die sooner rather than later. I believe that the Division Committee must take on the responsibility for producing project ideas and nursing them until a task group has been appointed and a proposal has been put forward. This calls for closer contacts between DC Members between the meetings than previously. I also believe that the workshop model which was first tested in Ottawa and will now continue in Vienna next February is an excellent way to nurse project ideas. However, it requires that all DC Members be committed to the work even between the meetings. I wish the Analytical Division every success in its future work for Analytical Chemistry.

Southern and Eastern Africa Network of Analytical Chemists (SEANAC)

The objectives of this inaugural conference in Botswana (7-10 July) were to develop networks between analytical chemists on the African continent, to facilitate the sharing of information and the limited resources available. Division V wished to identify with this group of analytical chemists who are seeking solutions to real challenges in teaching and research in analytical chemistry, in countries that are less well resourced than most. ***Roger Smith*** attended the SEANAC conference to represent the ACD. Roger writes:

SEANAC was created from an awareness of the environmental, health and food quality analytical problems in southern and eastern Africa. The network aims to enhance the analytical capability of the region by collaboration, cooperation in the use of the limited facilities and equipment, and by generating research interactions at the personal and institutional level through meetings, exchanges, training courses and workshops. Following a preliminary meeting, a group at the University of Botswana lead by Dr Nelson Torto, organised the Inaugural meeting of SEANAC in Gaborone, Botswana in July 2003.

The meeting was a considerable success. It brought together over 120 academic, industrial, and government participants primarily from the 11 African countries of the region. Many attended a pre-conference training workshop. Over three days of keynote and contributed lectures and posters, we learnt of the forefront of analytical chemistry, of the practical problems in the region, and of some of the opportunities for support and assistance. We heard of environmental problems such as a soil with 28.2 % w/w pesticide content, the need to develop standardised methods of analysis to satisfy the EU market, and the problems of health care in an area where HIV/AIDS levels can reach 38 %.

The region encompasses great contrasts. Some laboratories are equipped to high standards for research, but lower levels for teaching. Access to facilities and contact through the internet can be highly variable and there are variable levels of secondary education. What is regarded as analytical chemistry can differ. A useful description is provided in a recent article (Anal. Chem., 75, 2003, 107A).

On the positive side were learnt of high quality research carried out in the region, and potential sources of aid and support (especially the Swedish International Development Corporation Agency, National Science foundation, and The Organisation for the Prohibition of Chemical Weapons). These agencies provide travel and support grants, assist in exchanges within the region, access to facilities further afield for both short term research training or for longer periods, as well aid for technical support and training to maintain

and operate equipment. We heard of an interesting programme which can assist the transportation of second hand equipment to the region, once a donor and recipient are identified.

The standardisations of methods and results are important for trade. We heard of training courses (from IOCD and AOAC) to ensure that compliance to international standards can be achieved, and of how even basic instrumentation can be used to generate reliable results. The Division may be able to make an impact here through the WPQA. In education there was a presentation on the use of the internet as a distance teaching aid, including the Analytical Science Digital Library (www.asdlib.org), a resource that provides links to peer reviewed educational websites.

How can IUPAC help? Ideas are still being explored and a follow-up meeting was held at the General Assembly in Ottawa. Potential links include assistance with collaboration and standardisation activities, by providing contacts with potential contributors to training courses, helping to develop a consistent regional analytical curriculum for education though CCE and the continuing assistance in collaboration with the aid agencies already active in the region.

The conference succeeded in its primary aim of bringing together analytical chemists from the different countries of the region. It succeeded in terms of organisation, the number of regional participants, the high quality of the presentations, and the national and international support and recognition it received. The organisers are congratulated. They very successfully overcame the trauma, only a few weeks before the meeting, of being evicted from their planned hotel by the imminent arrival of the US President, his security, and press entourage!

A "New challenges for Analytical Chemists: Genomics and proteomics" a Division V Workshop on held in Ottawa***. Ryszard Lobinski*** reports:

In the quest of keeping up to date with the emerging needs of analytical chemistry the ACD Committee invited external speakers to give a brief introduction to some hot topics in analytical chemistry. The persons who graciously accepted the invitations were Aled Edwards, Director of the Genomic Consortium, University of Toronto, Jim McLaren, Director of the Chemical and Mechanical Standards, National Research Council, Ottawa, and Heinz Schimmel, IRMM, Geel, Belgium. The topics covered analytical chemistry in proteomics and genetically modified organisms.

A. Edwards presented the increasing role of mass spectrometry in the multibillion dollar industry of identification and prediction of disease states. He evoked the need for standardization of analytical mass spectrometric methods, qualitative fingerprinting and quantitative determination. J. McLaren and H. Schimmel talked about the needs for accurate measurements of DNA in view of the increasing role of genetically modified organisms and regulatory trends.

Ed.: A very positive outcome from this Workshop was the identification of three potential projects: 'Standard Definitions of Terms Relating to Mass spectrometry' and 'Comparison of the terms: preconcentration/sample preparation as used in GMO analysis and in classical analysis' and 'Terminology related to analytical chemistry of metal forms in biological systems: metallomics'. Proposals are currently being drafted for two of these.

Building on the success of this workshop, the ACD is including a symposium in its next meeting in Vienna, February 2004…..

Analytical Chemistry Division meeting, February 16 and 17, 2004

The Division will hold its next meeting at the IAEA in Vienna on February 16 and 17.

In addition to the 'normal business' of the Division (setting goals for the next biennium; review of projects in process; identifying new project ideas; establishing management structures and group and individual responsibilities) the meeting will include a ***Joint Symposium*** with the Inter-Divisional Working Party on Quality Assurance (WPQA). This signals an intention that 'Metrological traceability' is to be one of the core areas for the work of the Division Committee in the next biennium.

The symposium is titled: ***Metrological traceability in chemistry***. It will bring together the ACD, the WPQA, key staff from IAEA and key-note speakers from IUPAP (Dr. Leslie Pendrill), BIPM (Dr Robert Wielgosz), WPQA (Dr. Paul De Bievre) and IAEA (to be confirmed).

> ***The objectives are three-fold***. Firstly to focus our attention on emerging issues in metrological traceability, with a view to identifying project opportunities and project partners. Secondly to enhance communication between the ACD, the WPQA and practitioners who draft, develop and apply standards for traceability and quality assurance (the stakeholders!). Thirdly to present and discuss the joint IUPAC-IUPAP project proposal to ICSU: '***Metrological Traceability of Measurement Results in Chemistry***'.

IUPAC has a unique role and responsibility in establishing communication between independent organizations and practitioners and in bringing objective expertise to focus on specific scientific matters.

This symposium is an opportunity for bridge-building and transfer of information between IUPAC, the invited agencies, and IAEA. It is an opportunity for IUPAC to exercise its responsibility in facilitating harmonisation of definition of standards and practices, of the concepts measurement uncertainty, traceability of measurement results, and international terminology. It is also an opportunity for IUPAC to inform key agencies of its current projects and those under development.

The symposium held in Ottawa in conjunction with the ACD meeting was highly successful in informing the ACD on emerging challenges in Genomics and Proteomics, in identifying possible new projects and in improving links with stakeholders/end-users. It indicated the capacity for the Division Committee itself to be much more pro-active in identifying projects, to take the role of a 'think tank' and so to generate Project ideas and proposals 'from the top down' (the inverse of the present process). The symposium in Vienna will build on this concept.

An invitation to Vienna

The ACD meeting is open to all members of the Division Committee, although only Titular Members can be funded. Please note that if you do intend to be present it is necessary that Ales Fajgelj receive your personal details, urgently, so that security clearance measures for your access to the IAEA site can be completed. The Agenda and related papers will be distributed to all members of the Division Committee in advance of the meeting; those who are unable to attend are invited to respond to Agenda items by e-mail in advance.

Kip Powell
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ACD Membership 2004-5

Name	Position	Current Term	NAO
Prof. Kipton J. Powell	TM President	2004-2005	New Zealand
Prof. Ryszard Lobinski	TM Vice President	2004-2005	France
Prof. Roger M. Smith	TM Secretary	2004-2007	UK
Dr. David S. Moore	TM Past President	2004-2005	US
Prof. Mauro Bonardi	TM	2004-2005	Italy
Prof. Ales Fajgelj	TM	2004-2005	Slovenia
Prof. D. Brynn Hibbert	TM	2004-2005	Australia
Prof. Kazuko Matsumoto	TM	2002-2005	Japan
Prof. Marja-Liisa Riekkola	TM	2004-2005	Finland
Prof. Elias Aires G. Zagatto	TM	2004-2005	Brazil
Dr. Zhifang Chai	AM	2004-2005	China/Beij.
Prof. Heinz Gamsjäger	AM	2002-2005	Austria
Dr. Wlodimierz Kutner	AM	2002-2005	Poland
Prof. Kermit Murray	AM	2004-2005	US
Prof. Yoshio Umezawa	AM	2004-2005	Japan
Prof. Yuri Vlasov	AM	2004-2005	Russia

Name	Position	Current Term	NAO
Dr. Jayaraman Arunachalam	NR	2004-2005	India
Prof. Christo Balarew	NR	2004-2005	Bulgaria
Dr. Daniel Alberto Batistoni	NR	2004-2005	Argentina
Prof. Klaus Danzer	NR	2004-2005	Germany
Prof. Jan Åke Jönsson	NR	2004-2005	Sweden
Prof. Walter Lund	NR	2004-2005	Norway
Dr. Zoltan Mester	NR	2004-2005	Canada
Prof. A. Sanz-Medel	NR	2004-2005	Spain