

## **Item 6: Statutory Report of President on State of the Union**

It is both a privilege and pleasure to report to you on what has happened within IUPAC in the last two years. There have been many developments and in this written report I will outline some of these. The Secretary General will address other issues so that between the two reports we can provide you with an oversight of the General State of the Union. This written report will be in the nature of an outline, and I shall expand on some of these issues in my oral report to Council.

Let me begin by being somewhat introspective. In order to achieve our mission and our six goals, many of our stakeholders believed that we needed to follow up our successful introduction of the project system with a revision of IUPAC structures in order to streamline IUPAC governance. Such revisions were debated but not accepted at our last two General Assemblies, however there were significant expressions of support to make IUPAC operations more efficient. An ad hoc committee for streamlining IUPAC operations was created and I will report on the results of their deliberations under item 8 on the agenda. Let me just note here that much of what the committee recommended has already been put in place. One aspect of their deliberations involved changes in the conduct of Council in order to allow us to deal more expeditiously with routine matters, and to free up time for Council to think strategically and to engage in matters of real importance to the Union and its members.

A recurring concern of IUPAC officers and member organizations is how to allow everyone to get their issues “on the table.” To address this problem, the Executive Committee approved a proposal at its April 2006 meeting to hold a series of round table discussions in Torino. These discussions are intended to allow small groups of Council delegates to discuss subjects of mutual interest in a setting conducive to the easy exchange of ideas. By the time I give my oral report, these round tables will have occurred, and we will receive a report on them in the latter part of the Council meeting.

Our principal strength within IUPAC lies in the talent, knowledge and commitment of the more than 1000 scientists worldwide who are involved in the IUPAC project system. The reports at the Beijing GA of the Division Presidents and Standing Committee Chairs were both impressive and inspirational, and I am sure that will be no less so in Torino. These reports contain key information about IUPAC activities and I very much look forward to reading them. My VPCA provided an overview of the project system at the conclusion of the second biennium of its full operation. In summary I concluded that the project system is an overwhelming success. In financial terms alone there has been a very significant increase in project commitments from the transition years of 2000-01 to the present. These increases have occurred while maintaining a strong financial position within the Union. You will have had the pleasure of reading the report of the Evaluation Committee. They have done an outstanding job in analyzing whether the project system is meeting our strategic goals and is delivering value for our investment. Please study the report on your own but let me paraphrase their conclusions by stating that they find our modest investment has been worthwhile, and indicates the success of the project system.

I could easily fill this report with individual successes within the project system. Rather arbitrarily, let me just highlight a few with apologies to the numerous excellent projects that I will not mention. The ThermoML standard for thermochemical and physical property data, the International Chemical Identifier, InChI, which expresses chemical structures in a standard machine-readable format, the phenomenal continued success of

## Item 6: Statutory Report of President on State of the Union

the atmospheric reference database for atmospheric modelers with 6500 hits per week, the publication of a book on *Analogue Based Drug Discovery*, analytical capacity building in Africa, the Stability Constants Database, the revision of Standard Atomic Weights, a very successful series of workshops on crop protection chemistry in Asia and Latin America, the IUPAC-UNESCO-UNIDO safety training program, the leading role of IUPAC in a multi-organization project on Harmonization of Quality Assurance, the major role played by IUPAC in the revision of the *International Vocabulary of Basic and General Terms in Metrology* (VIM), and many more are all achievements which make significant contributions to world wide chemistry.

IUPAC is a diverse and multifaceted organization, which successfully addresses a number of important global issues within the chemical sciences. However we are still best known for our authoritative leadership in the fields of nomenclature and terminology. We continue to excel in that role and I wanted to note the appearance, or future appearance, of the *Red Book* in 2005, the *Gold Book* in 2006, the *Green Book* in 2007, and the *Blue* and *Purple* books in 2008. In summary, these authoritative publications are characterized by the following properties. The *Red Book* presents an extensive revision of Inorganic nomenclature. It introduces material to deal with newly discovered classes of compounds, and provides agreement between organic and inorganic approaches to compounds of mutual interest. The online version of the *Gold Book* is now available in XML format. This powerful tool enhances searchability, and provides a convenient and efficient way to organize data, and to group related terms and concepts. The *Green Book* has also undergone extensive revision and provides an invaluable source of information on units and revised values of fundamental universal scientific constants. The *Blue Book* has continued to grow in size and scope. It has undergone a radical change in philosophy in that for the first time it will provide preferred names for organic compounds. The *Purple Book* has undergone a general revision to give an up to date guide to the rapidly changing field of polymer terminology.

Aside from the excellent work occurring in IUPAC Divisions, I would like to draw your attention to increases in activity among our Operational Standing Committees. Aside from the safety training program, COCI has attempted to increase the number of Company Associates through several strategies, and has been active in the organization of the WCLM. CCE has taken an active role in promoting the public appreciation of Chemistry, and has been responsible for a major event at the Torino Congress, the presentation of Roald Hoffmann's play "Should've". Recently we have assigned CCE the task of pursuing the concept of an International Year of Chemistry. Meetings have occurred with UNESCO to enlist their help in obtaining UN General Assembly approval for 2011 as an International Year of Chemistry. Planning is underway and steps have been identified to achieve this goal. CHEMRAWN has continued to promote and sponsor conferences and to publish associated reports on issues of global importance. Through their Chair, they have produced an in depth analysis of the effects of CHEMRAWN conferences since their inception in 1978.

One of our goals is to foster communication among individual chemists and scientific organizations, with special emphasis on the needs of chemists in developing countries. An IUPAC project that relates directly to those goals is the Malta III Conference "Frontiers of Chemical Scientific Research and Education in Middle Eastern Countries".

## Item 6: Statutory Report of President on State of the Union

This is the third such conference and they have all been sponsored by ACS, RSC, GDCh and IUPAC. IUPAC has been designated the Principal Sponsor for Malta III, and has been asked to facilitate its organization. The participants in these conferences include most Middle Eastern countries including Palestine and Israel. It is anticipated that scientists in the Middle East will develop working relationships and cooperative programs that will have long range positive effects on the dissemination and exchange of scientific knowledge by scientists and engineers of the Middle East and their students. The long-range effects of this Conference and the follow-up activities which result from the Conference should aid in the economic development of each participating country, will address the problems associated with the local and global environments, and will add to the material prosperity of their peoples.

IUPAC has been successful in raising money for a number of prizes. An existing prize, the Thieme-IUPAC Prize, is sponsored by Georg Thieme Verlag. It consists of Euro 5 000, and is awarded every two years on the occasion of IUPAC's International Conference on Organic Synthesis to a scientist under 40 years of age, whose research has had a major impact on the field of synthetic organic chemistry. In the past two years, one endowment has been increased and a new prize has been introduced. Samsung has recently donated USD 25 000 to the IUPAC Polymer Division. The donation will be added to the Samsung Total Petrochemical Company Endowment fund that was originally funded with a USD 125 000 donation from Samsung in 2003. The income from the Endowment Fund is used by the Polymer Division to support excellent researchers and students in polymer science. In 2006 a generous donation from Richter Pharmaceuticals, Ltd. (Budapest, Hungary) has led to the IUPAC-Richter Prize in Medicinal Chemistry. The award will recognize one scientist every two years who will receive a cash prize of USD 10 000 at an IUPAC-associated scientific meeting wherein they will be expected to deliver a lecture about their work.

I will leave the Secretary General to give you the complete story but I simply have to mention an exciting development that relates to our website and web capabilities. I have signed a Memorandum of Understanding between IUPAC and Fachinformationzentrum für die Chemie Berlin to provide web-based services to IUPAC bodies through the IUPAC website.

IUPAC has never been directly involved in the International Chemistry Olympiad. This is a competition with all the excitement and camaraderie that characterizes the Olympics and involves young people in their final year of high school. In July 2006, thanks to a gracious invitation from the organizing committee, I had the great privilege of participating in this event, speaking about IUPAC at their closing ceremonies, and, most importantly, presenting IUPAC *Gold Books* to the 28 gold medalists in a competition that involved more than 70 countries. As a result of that interaction, I have recently signed a Memorandum of Understanding between IUPAC and the International Chemistry Olympiad that will make IUPAC a permanent sponsor of this event and lead to our direct involvement in the competition.

One of IUPAC's priorities is to nurture relationships with organizations whose aims and activities are in harmony with those of the Union. One such organization is the European Association for Chemical and Molecular Sciences, EuCheMS. I had the opportunity to present a brief address at the opening ceremonies of their 1<sup>st</sup> European Chemical

## Item 6: Statutory Report of President on State of the Union

Congress. This historic meeting was a great success, and in my talk I had an opportunity to inform the more than 2 000 conferees about the breadth of IUPAC activities. Hopefully we will continue to collaborate with mutual benefit to both organizations.

Another such organization is the International Council for Science (ICSU). Chemistry has played an important role in ICSU from its founding in 1931, with IUPAC being one of its original members, yet IUPAC has not been fully involved with ICSU over the last few years. Increasingly many of our own programs have a worldwide outreach. If we are to maximize our global opportunities, the IUPAC Executive believes that we need to work more closely with ICSU. As a first step, we became involved with the ICSU strategic planning process by providing input to many of their planning documents. We have been more actively involved in nominating members for ICSU bodies. Recently the chair of CCE became a member of the ICSU committee on Freedom and Responsibility in the Conduct of Science. We have actively participated in a committee to revise the ICSU dues structure. At their General Assembly in October 2005, I was elected as a Scientific Union member of the ICSU Executive for three years. I am hopeful that an IUPAC officer as a member of the ICSU Executive will provide an exciting opportunity to enhance the global aspects of IUPAC's programs. In this regard ICSU has recently opened regional offices for Africa, Asia and the Pacific, and Latin America and the Caribbean. IUPAC participated in the opening conferences at all three sites: Pretoria, Kuala Lumpur and Panama. Our hope is to use the contacts within these regional offices to help IUPAC become more involved with underdeveloped countries and to extend our programs more effectively to these regions.

These are exciting times for IUPAC. I am looking forward to our Council meeting where we celebrate our achievements, and continue our search for effective ways to contribute to the application of chemical sciences to improvements in our global environment and to human conditions.

*Bryan Henry*