

**Discussion of the International Year of Chemistry proposal  
CCE meeting, Philadelphia, PA Jan 25-26, 2008**

**Agenda**

- 1) Update on campaign for UNESCO/UN designation (Mahaffy)**
- 2) Meeting at APS – See Notes below (Malin)**
- 3) Draft Prospectus (Malin)**
- 4) General discussion**

**Some questions for discussion:**

- 1. What should be the role of IUPAC and partners in obtaining UNESCO approval and UN designation?**
- 2. What should be the role of IUPAC in administering the IYOC? One model: IUPAC publicizes IYOC, encourages organizations to participate, maintains website describing activities.**
- 3. Should an effort be made to obtain funds for local activities?**
- 4. How can various segments of the community (education, industry, government, public) become involved?**
- 5. What is the best approach to ACS, AAAS national societies & federations worldwide? What about non-IUPAC members?**
- 6. What else should be included in the Prospectus?**
- 7. What are the “deliverables” of the IYOC?**

**Notes from meeting at American Physical Society on 1/9/08**

JMM visited American Physical Society and met with two people (Jessica Clark and Vinaya Sathyasheelappa) who were very much involved in the World Year of Physics - 2005. They provided the following interesting and helpful information:

- Impetus for the WYP came initially from the European Physical Society which made staff available, as did APS, to support activities. The website is <http://www.wyp2005.org>
- The World Year of Physics appellation was used because International Year of Physics would have required UNESCO approval which they didn't have at the start.
- The EPS developed a logo early on.
- The World Year of Physics international executive committee only met a few times, about twice. Most of the activity took place within countries.
- APS administered the World Year of Physics activities in the United States. Their website is <http://www.physics2005.org/> For an international perspective they

suggested I talk with Judy Franz, APS Executive Director, who is Secretary-General of IUPAP.

- APS obtained grants from NSF and DOE plus about \$200k of its own funds totalling around \$500k. This was for U.S. activities, many of which are listed on their website. It's not yet clear to me what funds were available at the international level; The EU Sixth Framework made a grant to fund activities in Europe.
- An international kickoff event was held at UNESCO in Paris, Jan 13-15, 2005.
- The APS people said The World Year was "headquarters-led, but community-driven," which I take to mean that the organizers made it known to the community that support would be available for activities proposed by the Physics community. In the U.S. the organizers made individual \$10k grants to help support 20 programs.
- Some countries had a focus week, like National Chemistry Week in the US, but none of them wanted to move their week to be in phase with the others. This was caused no problems.
- There was a kickoff event in the U.S. involving AAAS, whose support The physicists felt was very valuable.
- Use of Albert Einstein as a central figure turned out to have certain legal ramifications, since some images of Einstein are proprietary. This may not be true of Marie Curie, but we should be aware of the possibility. The Physicists are also celebrating one of Marie Curie's Nobel prizes.

## **International Year of Chemistry - 2011 DRAFT Prospectus**

**Goal:** To increase the public's appreciation and understanding of the benefits of chemistry to humankind.

**Introduction and Rationale:** All known matter – gas, liquid and solid – is composed of the chemical elements or of compounds made from those elements. Not only is humanity's understanding of the material nature of our world grounded in our knowledge of chemistry, but the science of chemistry contributes enormously to economic progress. The chemical industry and other producers of medicines, fuels, metals, and virtually all other manufactured products depend upon chemistry.

In order to ensure the continued health of this science and to continue to attract excellent students as its practitioners, it is important that the general public appreciate and understand the many contributions that chemistry makes to improve and lengthen human life. Chemists play a key role in overcoming many of the challenges facing the world today, and therefore in helping to address the United Nations Millennium goals. A profound understanding of chemistry is essential for developing molecular medicine, for maintaining a wholesome environment and for creating sustainable sources of food and energy.

The year 2011 marks the one-hundredth anniversary of the Nobel Prize in Chemistry awarded to Marie Sklodowska Curie, recognizing her discovery of the

elements radium and polonium. Recognition of Dr. Curie's achievements will be an inspiration to all students, especially women, to pursue careers in chemistry.

The International Year of Chemistry – 2011 (IYOC) will:

- Serve as a focal point for activities by national chemical societies, educational institutions and non-governmental organizations
- Enhance the understanding and appreciation of chemistry among the public
- Promote the role of chemistry in contributing to solutions to many global problems
- Build capacity by engaging young people with scientific disciplines, especially the scientific method of analysis developed by hypothesis, experiment, analysis and conclusions.
- Enhance international cooperation.

Most appropriately, this international initiative is being led by the International Union for Pure and Applied Chemistry (IUPAC), founded in 1919 by chemists from academia and industry. IUPAC has a truly global reach with 51 National Adhering Organizations and 21 Associate Adhering Organizations. At its General Assembly in Turin, Italy in August 2007, IUPAC unanimously approved a resolution in favor of the proclamation of 2011 as the Year of Chemistry.

**Activities:** IYOC activities will take place at the local, state, regional, national and international levels in many venues including schools, malls, universities, libraries, museums, and zoos. Local organizers will have free reign to create appropriate activities of their own, but examples might include:

- Treating all levels of students, from preschoolers to university students to chemistry demonstrations at appropriate levels.
- Interacting with government leaders to provide them with information on the importance of a strong chemical community.
- Organizing visits to industrial sites including chemical companies, metal factories, petroleum refiners, breweries, vintners and distillers
- Publicizing the contributions that chemistry makes to every nation's economy by submitting articles to the press and to magazines.
- Sponsoring poster exhibitions highlighting the usefulness of chemistry.
- Organizing problem-solving projects through which students can use their knowledge of chemistry to develop solutions to local problems.
- Developing television and radio programs explaining the benefits of chemistry
- Producing a list of the contributions that chemistry has made to improve lives, particularly publicizing recent developments in chemical research.
- Holding career fairs and inviting professionals from the chemical communities to talk about how they use chemistry in their jobs. Organizing hands-on activities and demonstrations to help participants get a feel for what it would be like to work in a chemistry-related field.
- Creating on the IUPAC Website a "page" for IYOC with links to national chemistry celebrations worldwide, including a listing of Green Chemistry

activities. The webpage might employ some of the practices exemplified in the “World Year of Physics 2005” page <http://www.wyp2005.org/>

- Developing a web-based “toolkit” of ideas for use by organizers of IYC-2011 events.

### **Methodology:**

IUPAC will make all necessary efforts to have the year 2011 declared the International Year of Chemistry by UNESCO and the United Nations General Assembly. All countries will be encouraged to participate in IYOC-2011. The Union will work with national and international federations and societies to publicize IYOC – 2011 within the context of annual national and regional celebrations of Chemistry that are already taking place. In addition, IUPAC will begin a fundraising campaign on behalf of IYC-2011 so that it can provide “seed” funding for projects to present the benefits of chemistry to the public. The Union will accept and publicize reports of activities carried out during the IYOC-2011;

### **Administration:**

- A request has been put forward that UNESCO endorse the concept of the International Year of Chemistry – 2011. UNESCO’s Executive Board will consider the request at its meeting in March, 2008. If approved by UNESCO, the request will go forward to the next United Nations General Assembly
- A relatively small Managing Committee, with worldwide representation, will supervise the IYOC-2011 project. Also planned is a larger IYOC Advisory Committee, members of which will be available to provide ideas, expertise and contacts to the Managing Committee.
- A request for \$50,000 will go to the IUPAC Project Committee to cover costs of meetings for the Managing Committee..
- IUPAC will publicize reports of activities as they are received. This information will be collected for dissemination in IUPAC journals, in book form or through the internet.
- IUPAC will manage the IYOC-2011 webpage

### **IYC Managing Committee:**

John Malin, Chair

Bryan Henry

Peter Mahaffy

Jung-II Jin

David Black

Natalia Tarasova

Gabriel Infante

To be appointed: Representatives of FLAQ;; EUChemS, Fed. Asian Chem. Societies,

Fed. African Chemical Societies;

ACS; RSC

Candidates: Bill Carroll (ACS), Carol Henry (ACC, retired), Colin Humphries (CEFIC, retired), Wolfram Koch (GDCh, EUChemS)

### **IYC International Advisory Board**

To be appointed

### **Preliminary Budget:**

Expenses:

Meetings and communication expenses of the managing committee:	\$50,000
<u>Seed money proposals for IYC activities (proposed)</u>	<u>\$500,000</u>
Total	\$550,000

Sources of funds:

IUPAC Project System:	\$50,000
<u>Industrial and institutional donors</u>	<u>\$500,000</u>
Total	\$550,000

### **Relevant websites:**

International Year of Astronomy - <http://www.astronomy2009.org/>

World Year of Physics - <http://www.physics2005.org/>