

IUPAC Announces Winners of the 2010 IUPAC Prizes for Young Chemists

The following winners of the 2010 IUPAC Prizes for Young Chemists were announced in May:

- **Guangbin Dong**, Stanford University, Palo Alto, California, USA
- **Viktoria Gessner**, Technical University Dortmund, Dortmund, Germany
- **Rafal Klajn**, Northwestern University, Evanston, Illinois, USA
- **Jason Spruell**, Northwestern University, Evanston, Illinois, USA
- **Guihua Yu**, Harvard University, Cambridge, Massachusetts, USA

The prizes are awarded for the best Ph.D. theses in the chemical sciences as described in 1000-word essays. The winners will each receive a cash prize of USD 1000 and travel expenses to the 43rd IUPAC Congress, 30 July–7 August 2011, in San Juan, Puerto Rico. Each prizewinner will also be invited to present a poster at the IUPAC Congress describing his/her award winning work and to submit a short critical review on aspects of his/her research topic to be published in *Pure and Applied Chemistry*. The awards will be presented to the winners of the 2010 and 2011 prizes during the Opening Ceremony of the Congress.

The essays describing the 2010 winners' theses can be found on the IUPAC web site and cover a wide range of subject matter:

- Guangbin Dong: Synthetic Efficiency: Using Atom-Economical and Chemoselective Approaches towards Total Syntheses of Agelas Alkaloids, Terpestacin and Bryostatins
- Viktoria Gessner: Lithiumorganic Compounds: From the Structure-Reactivity Relationship to Versatile Synthetic Building Blocks and Their Application
- Rafal Klajn: Self-Assembly of Nanostructured Materials
- Jason Spruell: Application of Copper-Catalyzed Reactions for the Efficient Synthesis of Donor-Acceptor Mechanically Interlocked Molecules as well as for Nanoscale Surface Patterning
- Guihua Yu: Assembly and Integration of Semiconductor Nanowires for Functional Nanosystems: from Nanoelectronics to Nanobiotechnology

There were 29 applications from 15 different countries. The Prize Selection Committee comprised members of the IUPAC Bureau with a wide range of expertise in chemistry.

Applications for the 2011 prizes are now being solicited. For more information, see www.iupac.org/web/nt/2010-05-19_young_chemist.

 www.iupac.org/web/nt/2010-05-19_2010_winners

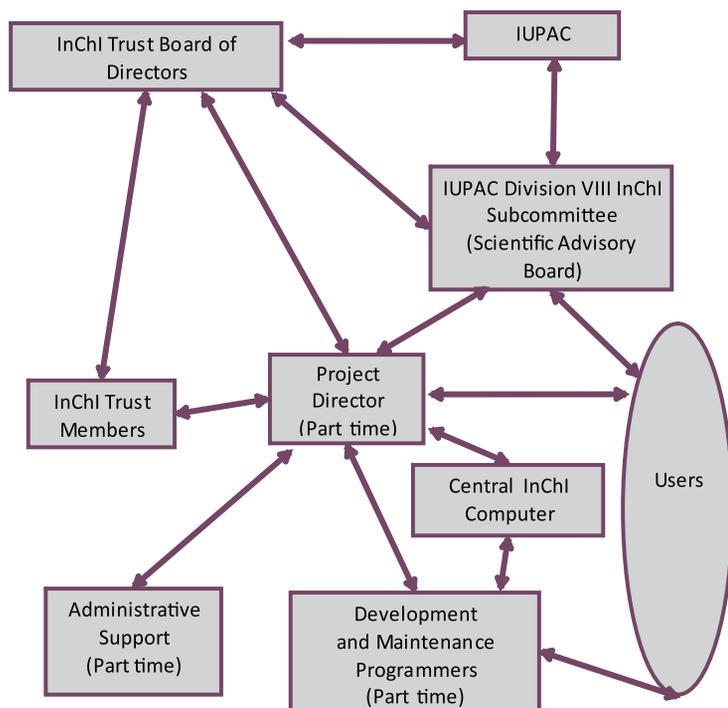
IUPAC and the InChI Trust Agree Upon Conditions for Collaboration

At the third meeting of the InChI Trust Board of Directors, in San Francisco, USA, on 21 March 2010, an agreement (see bottom of p. 17) between IUPAC and the InChI Trust was signed by Jason Wilde (publishing director, Nature Publishing Group, and chairman of the InChI Trust Board) and Terry Renner (IUPAC executive director). This sets out the conditions under which the two organizations intend to further develop and maintain the International Chemical Identifier (InChI). The diagram on page 17 explains how the relationship will work.

The InChI Trust was constituted in May 2009 to develop and support the nonproprietary IUPAC InChI standard and promote its uses to the scientific community. Members make annual contributions to the operating costs of the Trust, and IUPAC's Division VIII InChI Subcommittee acts as a Scientific Advisory



Jason Wilde, left (publishing director, Nature Publishing Group, and chairman of the InChI Trust Board), and Terry Renner (IUPAC executive director) at the InChI Trust signing on 21 March 2010.



While InChI might be a simple concept—its maintenance and further development require intricate consideration by various groups; here is how, schematically, the organizations and individuals involved with InChI interact.

 www.inchi-trust.org

Board, with responsibility for continued authentication of the InChI standard. The following organizations are now members of the Trust:

- ACD Labs
- ChemAxon
- Elsevier
- FIZ CHEMIE Berlin
- Informa/Taylor & Francis
- IUPAC
- Microsoft
- Nature Publishing Group
- OpenEye
- Royal Society of Chemistry
- Symyx Technologies
- Thomson Reuters
- Wiley-Blackwell

Questions about the Trust should be routed to the project director, Stephen Heller <Steve@InChI-Trust.org>, or to the IUPAC Division VIII InChI Subcommittee and InChI Trust Secretary, Alan McNaught <mcaught@ntlworld.com>.

InChI Trust and IUPAC: Heads of Agreement

1. The InChI Trust, established in May 2009, provides a means of continuing the development and maintenance of the InChI standard with funds from annual membership dues.
2. The IUPAC Division VIII InChI Subcommittee (hereinafter called the "IUPAC InChI Subcommittee") represents IUPAC's authority for recognition of the InChI standard.
3. The InChI Trust Board of Directors includes a IUPAC representative with full voting rights.
4. Requests for changes, whether corrections or extensions, to the InChI algorithm and/or the related InChIKey hash algorithm can arise from InChI Trust members or other InChI users, or from within IUPAC.
5. The IUPAC InChI Subcommittee and the InChI Trust Project Director will consider any requests for change, define corresponding requirements and communicate these requirements to the InChI Trust with suggestions for prioritization if necessary.
6. The InChI Trust will make arrangements for work needed to implement accepted changes, discussing any prioritization issues with the IUPAC InChI Subcommittee. In case of disagreement over priorities, the Trust, as provider of funds for the work, will have the final say. However, it is open to IUPAC to provide alternative sources of funding for any work connected with InChI development. Conversely, the Trust may contribute funding towards projects of the IUPAC InChI Subcommittee.
7. Any new (corrected/extended) version of InChI/InChIKey will require IUPAC approval (i.e. endorsement by IUPAC Division VIII) before release. New versions of InChI/InChIKey will be released simultaneously on the IUPAC and the InChI Trust websites.
8. All releases of InChI algorithm will be on behalf of IUPAC and the InChI Trust (as joint licensor) and will continue to be made available under the GNU Lesser General Public License version 2.1, or other open-source license as mutually agreed between IUPAC and the InChI Trust.

Denis Hamilton to Receive the First International Award for Advances in Crop Protection Chemistry

The IUPAC Division on Chemistry and the Environment has established the IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry, which will recognize individuals in government, intergovernmental organizations, industry, and academia who have exercised personal leadership for outstanding contributions to international harmonization for the regulation of crop protection chemistry. The award will be administered by the division's Subcommittee on Crop Protection Chemistry, and will be presented on a biennial basis in conjunction with an IUPAC-sponsored conference or special symposium organized by IUPAC.

Nominations for the award will be solicited for receipt by December 1 of odd-numbered years, with the award to be made during even-numbered years. A call for nominations will be published in *Chemistry International*. Corporate sponsorship for the award has been arranged with Dow AgroSciences of Indianapolis, USA. Awardees will receive a USD 3000 honorarium plus meeting registration, travel, and per diem reimbursement.

Rationale

Why is international harmonization for the regulation of crop protection chemistry an important goal to encourage? Historically, it has been common for regulatory authorities in each country to require unique safety and environmental studies, follow individualized testing schemes, and complete stand-alone evaluations for each new crop protection chemical or use—all of which have yielded great waste and redundancy. Today's extensive batteries of chemistry, toxicology, ecological, and environmental studies may cost upwards of USD 200 million for each new active ingredient brought to market. The lack of standardization also creates an animal welfare issue since many more animals have to be tested when studies must be repeated in different countries. In

addition, the lack of common standards creates trade barriers—in the sale of crop protection chemicals and of agricultural commodities bearing trace residue of these chemicals.

Although many governments and organizations are on record as promoting international regulatory harmonization and have endeavored to develop cooperation, there has been no formal mechanism in place for recognizing outstanding individual contributions toward the effort. The IUPAC award will fill this gap.

Denis Hamilton Announced as First Awardee

The first IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry will be presented to **Denis J. Hamilton**, a chemist recently retired from the Queensland Department of Primary Industries (DPI), Australia, after more than 45 years of service. The award is to be presented on 7 July 2010 during a gala banquet organized as part of the 12th IUPAC International Congress of Pesticide Chemistry to be held in Melbourne, Australia <www.iupacicpc2010.org>.

Hamilton joined DPI in 1963, and after some 20 years of laboratory experience with the analysis of pesticide residues in crop protection chemicals and in foods, he began a truly extraordinary, quarter-century of work on the international harmonization of crop protection chemistry regulation. He has served on the FAO Panel of Experts on Pesticide Residues in Food and the Environment within the JMPR (Joint FAO/WHO Meeting on Pesticide Residues) since 1986. The JMPR reviews data on pesticides and recommends Codex MRLs, the maximum residue limits for pesticides in food in international trade. He has also served since 1997 on the FAO/WHO Joint Meeting on Pesticide Specifications (JMPS), which sets international quality specifications for pesticides to be used in agriculture and public health. With both JMPR and JMPS, Hamilton played leadership roles in organizing scientific panels, evaluations, and reports and in development of guidelines and novel assessment approaches.

From 1991 to 2009, Hamilton participated in IUPAC crop protection chemistry activities through the Commission on Agrochemicals and



Denis J. Hamilton will receive the first IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry.