

## IUPAC Prize for Young Chemists

In an editorial in *Science* on April 3, 1998, Nobel Laureate Thomas Cech discussed the Young Scientist Prize in Molecular Biology that is awarded each year to several young scientists who have just received their Ph.D. degrees. This prize, sponsored by Amersham Pharmacia Biotech and administered by the *Science* magazine editorial staff, is aimed at stimulating young scientists and is novel in recognizing the often overlooked contributions of graduate students. Cech concludes his editorial with the challenge: *One wonders why there aren't more such prizes for other fields of research.*

In September 1998, the Bureau discussed the possibility of an IUPAC Prize for recent Ph.D. recipients in the chemical sciences. There appear to be no such international prizes, but there is at least one similar national prize, the Nobel Signature Award given by the American Chemical Society. The Bureau concluded that such an award would be an innovative way to encourage outstanding young research scientists at the beginning of their careers and should reflect favorably on IUPAC. The Bureau approved the concept with the following major features:

- Eligibility: Award of the Ph.D. degree during the last year in any IUPAC Member or Observer country
- Number and Size of Awards: Up to four awards annually, each consisting of \$1000 and travel expenses to the next IUPAC Congress
- Geographic Limitations: Assurance of fair geographic distribution over a period of time.
- Role of NAOs: Individual NAOs may be asked for assistance, particularly in translating any documents or verifying that a degree is a Ph.D. or equivalent. Administration of the Prize would be handled through the Secretariat, and little burden is anticipated for NAOs.

The Bureau asked the Secretary General to develop a more detailed proposal (given below), which has been approved by the Executive Committee and will be submitted to the Bureau and Council.

The proposal draws on the experience of the *Science* magazine staff in administering the Molecular Biology Prize, which provides each year up to four regional awards of \$5000 and a grand prize of \$20,000. This award has been given since 1995 and now attracts about 80 applications each year, mostly in English. Publicity is given through *Science* magazine and its web site, as well as distribution of brochures through its Editorial Board. The *Science* staff conducts a preliminary evaluation and screening, then submits the applications to an international committee of five molecular biologists, chaired by Prof. Cech.

Principal Features of the Proposal:

1. The IUPAC Prize for Young Chemists is established to encourage outstanding young research scientists at the beginning of their careers.
2. The prize will be given for the most outstanding Ph.D. thesis in the general area of the chemical sciences, as described in a 1000-word essay.
3. IUPAC will award up to four prizes annually. Each prize will consist of \$1000 cash and travel expenses to the next IUPAC Congress. In keeping with IUPAC's status as a global organization, efforts will be made to assure fair geographic distribution of prizes. [The intention is to make four awards each year provided this can be done with good quality and reasonable geographic dispersion.]
4. Awards will be presented biennially at the IUPAC Congress. In addition to the four regular awards, in the year of the Congress an additional award will be reserved for the country in which the Congress is held. Each awardee will be invited to present a poster on his/her research and to participate in a plenary award session.
5. Applications must be submitted, as described below, to the IUPAC Secretariat with a copy to the National Adhering Organization (or Associate NAO) of the country in which the Ph.D. degree was awarded.
6. Applications will be judged by a committee of eminent scientists appointed by the President of IUPAC with the advice of the IUPAC Division Presidents. The Prize Committee will be organized by the immediate Past President of IUPAC and chaired by him or his designee. The Secretariat will provide staff support.
7. This program will require funding of close to \$3000 per award in direct costs, plus some additional funds for administration, publicity and expenses of an award ceremony - a total averaging about \$15,000 - \$18,000 per year (with most expenses in the Congress years). Our Endowment Fund should be used as the initial source of funds and guarantor of continuing awards. In fact, a program of this sort might receive sufficient favorable publicity to encourage future contributions to the Endowment. In addition, after the program is underway, we may be able to obtain industrial sponsorship (as *Science* has for the molecular biology prize), which could permit larger and/or more numerous awards and reduce or replace the amount from the Endowment. Finally, we might request some support from the organizers of the Congress, particularly for expenses of the prize for their country, reduced or waived registration fees for the Congress, and expenses related to the award ceremony.
8. If this proposal is approved by Bureau and Council, we could establish Prizes for 1999 and 2000, to be awarded in 2001. Although we may not get many applications for 1999, I think it would be desirable to gain some experience without the time pressure of the Congress. We might have the following schedule:
  - Fall, 1999: Announce the program via the Web, *CI*, NAOs, national chemical news

magazines, etc.

- April 1, 2000: Deadline for applications for the 1999 Prize (*i.e.*, for Ph.D.s awarded during 1999) to be received by the Secretariat.
- Summer, 2000: Announce winners and extend invitations to the Congress in 2001.
- Late summer, 2000: Announce the 2000 Prize, with deadlines, etc.
- February 1, 2001: Deadline for receipt of applications.
- May 1, 2001: Announce winners and extend invitations to the Congress.
- July, 2001: Awards at Congress

#### 9. Procedures for 1999 Prize:

- a. Entrants must have been awarded their Ph.D. (or equivalent) degree during calendar 1999 in any of the countries that are Members or Associate Members [Observer Countries] of IUPAC.
- b. The research described in the entrant's thesis must be in the field of the chemical sciences, defined as chemistry and those disciplines and technologies that make significant use of chemistry.
- c. The IUPAC Prize will recognize only work that was performed while the entrant was a graduate student.
- d. Application requires submission of a completed entry form, together with the material listed in items *e* and *f*. The entry form and supporting material should be submitted by e-mail whenever feasible. Additional material may be sent as needed by fax or mail.
- e. An essay must be submitted by the entrant that describes his or her thesis work and places it in perspective relative to current research in the chemical sciences. The essay must be written by the entrant and may not exceed 1000 words. The use of English is preferable, but any of the world's major languages is acceptable.
- f. Two supporting letters are required from the thesis adviser and/or chairman of the thesis committee and one additional faculty member. These letters should comment on the qualifications and accomplishments of the applicant and the significance of the thesis work.
- g. Complete applications must be received at the IUPAC Secretariat by April 1, 2000. The entrant should also send a copy of the application to the IUPAC National Adhering Organization in the country in which the Ph.D. was awarded. Early submission is strongly encouraged so any questions may be resolved before the deadline date.
- h. Entry form to include:
  - Name
  - Address
  - Phone, fax, e-mail
  - Academic degrees: Degree, date, place
  - Ph.D. thesis title; Name and position of adviser; Names and positions of thesis committee
  - Publication list
  - Academic and professional awards received as a student
  - Other relevant professional experience
  - Signature, with certification that "The work described in the submitted essay is based on my thesis research and that the Ph.D. (or equivalent) degree was awarded between January 1, 1999 and December 31, 1999."