

International Society of Heterocyclic Chemistry

1999 Newsletter

Message from the President

As the President of the ISHC, I write to inform you of the developments that occurred during this past year, and look ahead to the new millennium. 1999 was a "Congress year", and the extremely successful 17th International Congress on Heterocyclic Chemistry (ICHC) was held in Vienna (see below). The ISHC continues to evolve, but it is the enthusiasm and commitment of members that make for a successful society. Please encourage your colleagues to join us!

The ISHC on the World Wide Web

(<http://euch6f.chem.emory.edu/hetsoc.html>)

The ISHC's World Wide Web home page has been integrated with the way the society does business. Newsletters, meeting registration forms, and other information will always be available in this way - please use this service. E-mail is a good way to contact your President as well as the 2001 Congress Chairperson. Please send us your E-mail address along with any of your ideas and suggestions on any aspect of the operation of the ISHC by logging into the www home page. Once again the ISHC is grateful to Al Padwa for maintaining our Web page; now that our new Publicity Chair (see below) is located in the same Department as Al, we hope to make even better use of Internet technology.

The 17th ICHC in Vienna, Austria - August 1 - 6, 1999

The major event of the year was the International Congress of Heterocyclic Chemistry held in Vienna in early August. It was an extremely successful event with some 1180 scientists (plus about 250 accompanying persons) registered for the meeting. The organisation, masterminded by the Congress Chairman Fritz Sauter and his co-chairmen Johannes Fröhlich and Peter Stanetty, was outstanding, and the Congress will long be remembered, not least for the venue of the plenary lectures which took place in the Imperial Palace. The Congress also embraced "the new technology" - abstracts were submitted electronically, and the Congress website (see below) was used to great advantage.

In addition to the two Award Lectures (see below), the following distinguished scientists presented plenary lectures:

Margaret Brimble (Australia)
Dan Comins (USA)
Marco Ciufolini (France)
Laurence Harwood (UK)
Alan Katritzky (USA)
Johann Mulzer (Austria)
Andreas Pfaltz (Switzerland)

Victor Snieckus (Canada)
Boris Trofimov (Russia)
Yoshi Yamamoto (Japan).

There were also some 36 invited lectures, over 70 oral presentations, and almost 600 posters - a true feast of heterocyclic chemistry.

The ISHC is immensely grateful to Fritz Sauter and all his colleagues for organising such a fantastic Congress. However, for those of you unable to attend, all is not lost. The Congress Website is still open, allowing you to view abstracts as pdf files, search abstracts for keywords, and even listen to the speeches of welcome!

<http://www.ioc.tuwien.ac.at/ichc/>

Finally, a sad postscript to the Congress was the death, shortly afterwards, of Professor Raymond Castle. Raymond Castle has been long associated with heterocyclic chemistry and with the Society; our thoughts are with his family and colleagues.

The 1999 Awards

Owing to the late call for nominations, it was not possible to announce the winners of the ISHC Senior Award in Heterocyclic Chemistry and the ISHC Junior Katritzky Award for Heterocyclic Chemistry in last year's Newsletter. The two Awardees received their awards and delivered their Award Lectures at the Congress in Vienna. For the benefit of those of you who were not in Vienna, brief biographical details of the Awardees are included below.

Winner of the 1999 ISHC Senior Award in Heterocyclic Chemistry: Albert Padwa (Emory University, USA)

Albert Padwa was born in New York City in October 1937. He received his bachelors and Ph.D. degree at Columbia University in 1959 and 1962, respectively, working in the area of free radical chemistry with Cheves Walling. His thesis dealt with the intramolecular hydrogen transfer reaction of alkoxy radicals derived from organic hypohalites. In 1962-63 he was a NSF postdoctoral fellow with Howard Zimmerman at the University of Wisconsin carrying out research on cyclohexadienone photochemistry. In 1963 he was appointed Assistant Professor at Ohio State University in Columbus, Ohio. In 1966 he moved to the State University of Buffalo as an Associate Professor and was promoted to Full Professor in 1969. He was appointed the William P. Timmie Professor of Chemistry at Emory University in 1979.

For the past 35 years and in over 520 publications, the Padwa team has made broad and remarkably important contributions to heterocyclic chemistry. He has been a major pioneer in the area of cycloaddition chemistry and its usage for the synthesis of numerous classes of nitrogen heterocycles. Indeed, the vital role that reactive intermediates play in contemporary heterocyclic synthesis owes much of its origins to the outstanding research contributions of the Padwa group. Of particular note is his seminal work on the tandem cycloaddition of rhodium carbenoids for the synthesis of various natural products. His recent investigations dealing with the domino cyclisation cascade of thionium ions have added new dimensions to synthetic heterocyclic chemistry and have made it possible to synthesise alkaloids in a highly convergent manner.

trained an extremely large group of graduate and postdoctoral co-workers who have assumed important positions in both academic and pharmaceutical research worldwide. The ISHC is very proud to honour him as the 1999 ISHC award winner.

**Winner of the ISHC Junior Katritzky Award for Heterocyclic Chemistry:
Timothy Gallagher (University of Bristol, UK)**

Timothy Gallagher was born in Auckland, New Zealand in August 1956. Following undergraduate and postgraduate studies in the UK at Cardiff and Liverpool respectively, he undertook postdoctoral work with Phil Magnus in the USA before starting his independent academic career at Bath. Subsequently he moved to Bristol where he has now been promoted to full professor.

Tim Gallagher has worked on a range of problems in heterocyclic chemistry, and has made significant contributions in the area of alkaloid synthesis, and in the development of new methodology. His total synthesis of anatoxin-a initiated a long term and diverse program to study the chemistry of novel nicotinic agonists. This has led to the synthesis of new probes for studying the nicotinic pharmacophore and, very recently, to a unique series of ligands that show selectivity for key nicotinic receptor sub-types. A common theme is a strategy for constructing N- and O-heterocycles based on electrophile-mediated cyclisations to allenes, and this has been applied in several areas: a total synthesis of a complex indolizidine based alkaloid (pumilotoxin 251D) and, secondly, the development of a method for achieving efficient but remote (1,6- and 1,7-) asymmetric induction in the area of heterocyclic synthesis.

He has also used functionalised N-heterocycles as building blocks for the construction of a range of important and biologically significant heterocyclic targets, including polyhydroxy-indolizidines and the muscarinic agonist slaframine. He discovered the first general solution for the regiospecific generation of enolates based on 3-ketopyrrolidines and different methods for expressing this reactivity profile as well as its application in total synthesis have been reported.

Gallagher's most recent work has been in the β -lactam area. He has discovered a completely novel and highly convergent method for generating bicyclic β -lactams and a very significant feature of this chemistry is the diverse range of derivatives that are available. This includes carbapenams and carbapenems, a one-step synthesis of penams and a two-step method for obtaining penams and, most recently, a direct entry to oxapenams, an otherwise difficult and sensitive group of β -lactams. This process has also uncovered a novel method for generating azomethine ylides and he has reinforced his synthetic applications with a detailed and revealing mechanistic study. These mechanistic discoveries are of significance because of the implications that the work has for a much broader range of heterocyclic substrates that will now take this strategy beyond the β -lactam variants.

Professor Gallagher's work has been described in some 115 publications, and has been recognised with several awards: the 1987 Pfizer Academic Award (and again in 1992); the 1990 Royal Society of Chemistry Hickinbottom Fellowship; the 1991 ICI Academic Research Award; the 1994 Royal Society of Chemistry Corday-Morgan Medal and Prize.

The 18th ICHC in Yokohama, Japan - August, 2001

It was announced in Vienna that the 18th Congress will take place in Yokohama, Japan in 2001. The Congress Chair (and new Vice-President of the Society) is Professor Masakatsu Shibasaki (mshibasa@mol.f.u-tokyo.ac.jp), and all members should feel free to suggest names for Plenary Speakers for the Congress. Please send suggestions directly to Professor Shibasaki by January 2000 at the latest.

More details of the Congress will be announced in due course.

Fellows of The Society

It is decreed in the Constitution of the Society that two Fellows can be elected at every Congress; there were no nominations in 1999 and hence no new Fellows were elected. I would like to remind all members that they can make nominations for new Fellows of the Society; the nominee must have been a member of the Society for at least 5 years, and must have made outstanding contributions to the Society and/or to the subject of heterocyclic chemistry. Nominations can be sent to the President at any time, but for the Fellows to be elected in 2001, *the closing date is 30 June 2000*.

Elections

Following the recent elections, the current (from 1 January) **Executive Committee of the ISHC** comprises:

President:	Yoshinori Yamamoto
Vice-President:	Masakatsu Shibasaki
President Elect:	Steve Weinreb
Secretary:	Hans Neunhoeffer
Treasurer:	Stan Lang
Publicity Chair:	Dennis Liotta
Past President:	Chris Moody

The **Advisory Committee of the ISHC** comprises:

Dale Boger, Margaret Brimble, Oliver Kappe, Dan Comins, Scott Denmark, and Heinrich Wamhoff.

As outgoing President, I wish to express thanks on behalf of the Society and all its members to those colleagues who have completed their term of office on either the Executive or Advisory Committees; the Society is grateful to them for their efforts on our behalf.

Progress in Heterocyclic Chemistry

Members of the Society receive gratis individual copies of PHC on an annual basis. This important series is now well established, and Volume 11 was published in October 1999. The Society is most grateful to the editors, Gordon Gribble and Tom Gilchrist, and their team of authors. We urge you to make certain that your chemistry library is subscribing to *Progress in*

Heterocyclic Chemistry so that others in your setting can benefit from this yearly review of the heterocyclic literature.

For your information, the Editorial Advisory Board for PHC for Volume 12 is shown below. The new chairman, Professor Yamamoto, would welcome suggestions for future members of the Board.

Y. Yamamoto, Tohoku University, Sendai, Japan (Chairman)

C. J. Moody, University of Exeter, UK

K. Fuji, Kyoto University, Japan

T. C. Gallagher, University of Bristol, UK

A. D. Hamilton, Yale University, CT, USA

M. Ihara, Tohoku University, Sendai, Japan

S. M. Weinreb, Pennsylvania State University, PA, USA

R. Prager, Flinders University, South Australia

R. R. Schmidt, University of Konstanz, Germany

A. Dondoni, University of Ferrara, Italy

G. R. Newkome, University of South Florida, USA

D. P. Curran, University of Pittsburg, USA

Finance

At the 1999 Congress it was reported by the Treasurer that the Society is in good financial shape; hence your Executive Committee was able once again to hold the annual dues at the same level as the previous year (see below). However it is not the purpose of the Society to hold large reserves of funds, and therefore we would be interested to hear of imaginative ideas for how we might best make use of some funds to promote the cause of heterocyclic chemistry.

Membership

Stan Lang, the Society's treasurer, reports that 992 persons have paid 1999 dues. Although this represents a large number of members, a Society of our stature certainly should have even more members. I thank our publicity chairperson and regional representatives for all of their hard work this past year. These officials will continue to recruit new members worldwide in the year to come. Please take a few minutes to convince your colleagues that membership of the ISHC has important advantages, several of which are outlined below. You should note the recent decision by your Executive Committee to hold the 2000 dues at the same level as the last two years.

Benefits Associated with Membership

1. Participation in the Congress at significantly reduced registration fee rates.
2. Obtain Congress abstracts of papers at no cost even if not in attendance.
3. Receive lectures in Heterocyclic Chemistry (complete plenary lectures of the biannual IHCs).
4. Subscribe to *Heterocycles* at 20% discount.
5. Receive 25% discount from Elsevier on many different books.
6. Free annual copy of *Progress in Heterocyclic Chemistry* (see above).

Membership Dues

Should you have an address problem, the right opportunity to rectify this is in connection with paying the 2000 dues to our treasurer, Stan Lang, who is also in charge of the membership roster. Let me also repeat some payment details.

The annual dues are US \$35.00 (active member) and US \$15.00 (certified predoctoral student member). Multiple year subscriptions are encouraged. Please forward your dues by credit card, check, or money order in US dollars made payable to The International Society of Heterocyclic Chemistry, and forward to:

S. A. Lang, Ph.D.
Treasurer ISCH
P. O. Box 230
Blauvelt
NY 10913
USA

email: langsa@banet.net

You can also contact Dr. Lang by email for direct wire transfer or credit card use or for additional information.

Alternatively, send the equivalent (*only* in DMarks or the new Euro) to Dr. Hans Neunhoeffer, Secretary ISHC, Institute of Organic Chemistry, Darmstadt University of Technology, Petersenstrasse 22, D-64287 Darmstadt, Germany [fax number 49-6151-163278], or transfer directly to Dr. Neunhoeffer, ISHC, Volksbank Mühlthal, Account No. 20-22-044, BLZ 508 643 22.

In addition, Japanese members may pay their dues in yen to Prof. Dr. Ichiya Ninomiya, Kobe Women's College of Pharmacy, 4-19-1, Motoyamakita-Machi, Higashinada-ku, Kobe 658, Japan, or by direct bank transfer to Professor Ichiya Ninomiya, Sanwa Bank Higashi-Kobe, Account No. 3,565,822.

For long-standing members of 10 years continuous membership, there is the opportunity to become a Life Member of the Society; the dues for life membership are 10-times the current annual dues.

Finally.....

I wish you all a happy holiday season, and send you my very best wishes as we move into the next millennium.

Chris Moody

President ISHC

Exeter, UK, November 1999.