



# NEWSLETTER

INTERNATIONAL SOCIETY OF CHEMICAL ECOLOGY

Volume 17, Number 2, June, 2000

## UPDATE ON THE 2000 ISCE ANNUAL MEETING, Poços de Caldas, Brazil, August 15-19, 2000.

The preparations for the 2000 meeting, organized by Prof. Evaldo Vilela and his organizational team, are almost complete. The meeting in Poços de Caldas, a little north of Sao Paulo, has been timed to fit perfectly with the International Congress of Entomology; participants can go directly from the ISCE meeting to the Congress, and air travel costs should be the same whether participants attend only one meeting or both. Participants may register at any time, right up to and including during the meeting. General information about the meeting and the site, and the registration forms were published in the February newsletter, and can also be found on the meeting website <http://plecoptera.bioagro.ufv.br>, or the ISCE website at [www.isce.ucr.edu/society/](http://www.isce.ucr.edu/society/). Please note that conference participants must send their travel itineraries to the organizers by July 16th so that they can make arrangements for transportation to and from Poços de Caldas and Sao Paulo airport. Please send an email with your name(s), country of origin, arrival date and time, airline and flight number, departure date and time, airline and flight number to [evaldovilela@insecta.ufv.br](mailto:evaldovilela@insecta.ufv.br) by July 16.

Further information about ecotours and the city of Poços de Caldas can be found on the website [www.pocos-net.com.br/pocosdecaldas/en/](http://www.pocos-net.com.br/pocosdecaldas/en/)

### Future Meetings

Other scheduled meetings will be: July 7-12, 2001, Lake Tahoe, USA (organizer Gary Blomquist); 2002, Hamburg; 2003, South Korea; 2004, Ottawa, Canada; 2005, USA, possibly in the Washington D.C. area; 2006, Barcelona.

### Donations from Fuji Flavors, Kluwer, and Trécé Inc. Support ISCE Awards and Student Travel.

We are grateful for continuing support from Fuji Flavors for the ISCE Silver Medal Award, and from Kluwer Academic Publishers for the Silverstein-Simeone Lecture. We are also grateful to Trécé, Inc. for their generous

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donation in support of the Student Travel Fund, which sponsors student travel to the annual meeting to make presentations. Student travel awards are made on an annual basis, with 6-10 students and postdoctoral scholars normally receiving awards.

## From the Editor:

- The membership renewal application forms are only sent out once a year, usually in the October Newsletter. Not infrequently, the forms are forgotten or misplaced, and consequently every year we lose track of a number of members. However, the membership renewal form is permanently available on the ISCE website at the address <http://www.isce.ucr.edu/society/form.html>. If you have forgotten to renew your membership, or if you know colleagues who would like to join (or rejoin) the Society, please access the membership form on the webpage. **Please address all correspondence regarding membership issues or journal subscriptions paid through the Society to the Treasurer, Dr. Steve Teale, at [sateale@mailbox.syr.edu](mailto:sateale@mailbox.syr.edu)**

A wealth of other information about the Society and its activities is available on the website, including all the forms and information required to renew memberships, register for the annual meetings, student travel award applications, and abstracts of the meetings for the past several years. The webpage is updated frequently, and it should serve as an up-to-date source of information on Society affairs for you. Please make use of it, and the membership list which is linked to it. The webpage address is <http://www.isce.ucr.edu>. I am very grateful to Adam Trickett for his ongoing efforts in creating and maintaining the website for the Society.

- Please return your ballots for the election of our new vice-president and councilors to the secretary, Jocelyn Millar, at Dept. of Entomology, University of California, Riverside CA 92521, USA. If you wish, you may Email me your choices at [jocelyn.millar@ucr.edu](mailto:jocelyn.millar@ucr.edu). Please include your full name somewhere in your message.
- Please send any news items, such as awards won by Society members, announcements of conferences and symposia, listings of positions available, and other items of general interest to the editor by Email or by regular mail at the address above.

If you have not already done so, please pay your 2000 dues. Annual meeting participants who are not paid-up members will be charged membership dues at the time of registration for the meeting.

### REMINDER

For those people travelling to the ISCE Annual meeting in Poços de Caldas, Brazil, in order to have transportation from the Sao Paulo airport, **Please send an email with your name(s), country of origin, arrival date and time, airline and flight number, departure date and time, airline and flight number to [evaldovilela@insecta.ufv.br](mailto:evaldovilela@insecta.ufv.br) by July 16.**

## Results of referendum in February Newsletter.

The February Newsletter contained a referendum form in which the Executive Committee of the ISCE requested the membership's guidance on two issues:

**1. Election of Officers.** This question consisted of two parts, dealing first with election of members of the Executive Committee, and second, with the election of ISCE councilors. In the past, we have frequently only had one person on the ballot for the positions of Secretary, Treasurer, and Vice-President when these positions became open. We requested the membership's guidance as to whether it should be ISCE policy to try and have at least two nominations for each vacant Executive Committee position, or whether the membership was happy with the current system in which there may be only a single candidate for a position. This in no way means that there will only be one candidate, only that we can proceed with the election even though only one candidate may be nominated in a particular year. The

ballots cast were 75% in favor of the current system.

We are also reinstating the election of councilors, as called for in the ISCE bylaws, instead of councilors being appointed. We generally need to elect four new councilors every year. Thus, a second part of this referendum question concerned whether the membership was happy with a slate of only four candidates if only four were nominated, or whether you would like to see more than four candidates for the four available positions. The membership again voted in favor (65%) of proceeding with the election of councilors with the minimum number of candidates (4) if that is the total number nominated in a particular year.

**2. Newsletter in Electronic Format Only.** The costs of printing and mailing paper copies of the Newsletter form a significant portion of the Society's annual budget. Each copy of the Newsletter costs about \$3 to format, print, and mail by first class mail. We could save approximately

\$5,000 per year by switching to electronic format only, with the proviso that for the few members who were not able to access the Newsletter in electronic form, hard copies could be printed from the electronic edition and mailed out.

75% of the ballots cast were in favor of switching to an electronic format, so the Executive Committee will begin making plans to implement this change. We envision that when a new Newsletter is ready for distribution, you will be informed by email so that you can access and download it from the ISCE Webpage. Consequently, it will be vitally important that you inform the Treasurer, who maintains the membership database, of any change in your email address. We will retain mailing addresses in the membership database in order to send out other materials such as the registration packets for the annual meetings.

### **Letter from the President: Suggestions for Symposium Topics**

Dear members of the Society:

In the last Newsletter we stressed the importance of your participation in Society affairs. We need your input, support and advice. The scientific program of our annual meetings is one of those instances. We have been fortunate in having excellently organized and scientifically stimulating meetings in the past and I am sure this will continue. The society is traditionally strong in all subjects of plant and insect defenses and interactions, as well as in pheromone research and related areas. This is good and should not be changed. However, there are other fascinating areas of chemically mediated communication such as mutualistic associations, parasitism, and microbial ecology, just to mention a few. Moreover, marine chemical ecology is expanding and due to the advances of molecular biology evolutionary aspects of chemical ecology are becoming increasingly important.

One major task of our annual meetings is to give innovative or neglected areas of chemical ecology a forum, both as a means of stimulating interdisciplinary discussions and to catalyze collaborations among members of the chemical ecology community. If you have suggestions for a newly emerging or neglected subject area of chemical ecology, that in your opinion would make an fresh and interesting topic for a symposium at a future meeting, please inform either me or the ISCE secretary. Your suggestions will be extremely useful for hosts of future meetings in helping them to organize stimulating and well balanced scientific programs.

For your information, the titles of symposia organized at ISCE meetings for the past 10 years are listed below:

#### **1999 (Marseille):**

Molecular Biology of Odor Reception  
Plant Defence  
Social Communication  
Analytical Chemistry  
Sensorial Physiology and Behavioral Communication  
Venom and Molecular Targets

#### **1998 (Ithaca):**

Intraspecific Interactions  
Function and Use of Bioactive Chemicals  
Chemistry of Bioactive Chemicals

#### **1997 (Vancouver):**

Vertebrate Semiochemical Attractants and Cues for Blood-feeding Arthropods  
Marine Chemical Ecology  
Recent Advances in the Chemical Ecology of Scolytidae

#### **1996 (Prague):**

Physiology and Mode of Action of Semiochemicals  
Chemically Mediated Interactions Within and Among Trophic Levels  
Biochemistry of Secondary Metabolites  
Practical Applications of Semiochemicals

#### **1995 (Chile):**

Aphid-Plant Interactions  
Multitrophic Interactions  
Nitrogen in Plant Defense  
Synthesis, Separation, and Biological Activity of Enantiomers  
Plant-Herbivore Interactions  
Chemical Ecology of Vertebrates  
Allelopathy  
Pheromones: Isolation, Mechanisms, Uses  
General Topics in Chemical Ecology  
Bioactive Substances from Living Organisms

#### **1994 (Syracuse):**

Plant Herbivore Interactions: Quo Vadimus  
Chemical Prospecting  
Chemical Ecology of Forest Insects

Chemical Ecology and Chemical Analysis: Advances in Detection and Identification  
Interspecific Chemical Recognition  
Semochemicals of Beneficial Arthropods

#### 1993 (Tampa):

Marine Chemical Ecology  
Chemical Ecology of Terpenoids  
Physical Stress and Chemical Ecology  
Insect Pheromones and Hormones  
Tropical Chemical Ecology

#### 1992 (Kyoto):

Indigenous Medicinal Plants

### MEMBER NEWS

#### Professor R. M. Silverstein elected to the National Academy of Sciences, USA.

On May 2, 2000, Professor Robert M. Silverstein was elected to membership in the National Academy of Sciences of the U.S. in recognition of his role in establishing the field of chemical ecology and his pioneering work on the identification of pheromones. Professor Silverstein received his B.S. from the University of Pennsylvania in 1937 and his M.S. (Chemistry, 1941) and Ph.D. (Chemistry, 1949) from New York University. For the next 20 years he worked as a Senior Organic Chemist and Research Fellow at Stanford Research Institute, where he established a reputation as one of the foremost natural products chemists in the world and literally wrote the book on "Spectrometric Identification of Organic Compounds". This book is now in its sixth edition, published in 1998, and has served as the "bible" for identification of natural products by chemists throughout the world. In 1969 Professor Silverstein moved to Syracuse, NY, where he became Professor of Chemistry at SUNY College of Environmental Science and Forestry, and where he remains as Emeritus Professor.

Professor Silverstein is renowned for isolation and identification of pheromones. He collaborated with David Wood and colleagues to isolate and identify the first beetle pheromone. This was also the first multi-component pheromone to be identified and they were the first to demonstrate the importance of using a complete blend of pheromone components. He also wrote the definitive papers on the role of chirality in insect pheromones. He and his

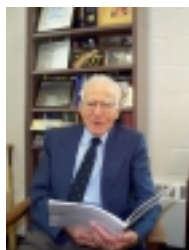
Allelopathy  
Chemical Ecology of Aqueous Biosphere  
Pleanry Lectures on Natural Product Chemistry  
Chemical Ecology of Fruit Flies  
Utilization of Natural Products in pest Control

#### 1991 (Dijon):

Semochemicals in Vertebrates, Human Pheromones, and Perfumes  
Plant-Insect Interactions  
Evolutionary Perspectives on Semochemicals in Insects

Thomas Hartmann, President    Jocelyn Millar, Secretary

colleagues demonstrated the importance of host tree compounds in synergizing bark beetle pheromones and identified and synthesized the pheromones of over 20 species of beetles, several ticks, moths and ants, as well as mammals like the deer and pronghorn antelope. His pioneering work on pheromones provided the knowledge and the tools for successful monitoring and control programs for insect pests of forests, stored products and agricultural crops. An example is the pink bollworm moth sex pheromone, which he played a critical role in identifying, and which is used successfully for control of this important pest of cotton, thus avoiding the use of pesticides on thousands of acres. Professor Silverstein helped define the term "chemical ecology" and establish a distinct field of study that involved chemically mediated interactions among many different types of organisms. He created the Journal of Chemical Ecology in 1974, and was a co-editor with Dr. John Simeone for 20 years. He was also a driving force in the founding of the International Society of Chemical Ecology (1983) and played a major role in its organization and functioning for the first 10 years. Professor Silverstein has received numerous awards including the Sigma Xi (Syracuse) award, 1977; American Chemical Society (Syracuse) award, 1978; J.E. Bussart Memorial Award, Entomological Society of America, 1978; Freshwater Biological Research Foundation Award, 1980; Medal of the Royal Swedish Academy of Agriculture, 1983. He was also the first recipient of the ISCE Silver Medal in 1986, and was made an Honorary Life Member of the Society in 1994. In addition, the Silverstein-Simeone Award was established by the ISCE to honor his and John Simeone's contributions to this society and to the field of Chemical Ecology.





### Jeff Aldrich Promoted to Research Leader, USDA-ARS

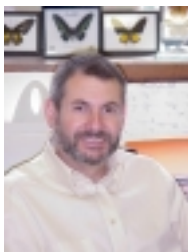


In December, 1999, Jeffrey R. Aldrich was appointed to the position of Research Leader of the US Department of Agriculture-Agricultural Research Service Chemical Ecology Laboratory, at the Agricultural Research Center in , Beltsville, Maryland.

### New Book by ISCE Life Member Bernard Fried

Professor Bernard Fried, Krieder Professor of Biology at Lafayette College and an internationally known parasitologist, has recently coedited a new book with T.K. Graczyk entitled "Echinostomes as Experimental Models for Biological Research". Echinostomes are ubiquitous intestinal flatworm parasites of vertebrates, and are important in human and animal health, and they make good experimental study systems because they can be easily maintained and manipulated in the laboratory. The volume consists of 15 chapters describing all aspects of the basic biology, systematics, behavior, lab rearing, and medical importance of echinostomes. The book is intended for advanced undergraduate students on up to professional parasitologists and physicians. The book is published by Kluwer, ISBN 0-7923-6156-3. Dr. Fried's studies also were highlighted recently in a special program on parasites that will appear on the Discovery Channel.

### Candidate for Vice-President: Dr. Murray Isman



Professor Murray Isman has been a very active member of the ISCE, having served as a councilor, the chair of the student travel awards committee, and the host of the 1997 ISCE meeting in Vancouver. He received BSc and MSc degrees in Zoology from the University of British Columbia, and

a PhD in Entomology from the University of California at Davis (1981). After 2 postdoctoral years at University of California Irvine, he joined U.B.C. in 1983 as an Assistant Professor of Entomology and Toxicology. In 1994 he was promoted to Professor. In the summers of 1986 and 1987, Murray was a Visiting Scientist in the Institute for Pharmaceutical Biology, Technische Universitat Braunschweig (Germany), and in February 1998 was a Visiting Lecturer in the Department of Chemistry at the Federal University of San Carlos (Brazil).

At UBC, Dr. Isman teaches courses in introductory entomology, integrated pest management, pesticide toxicol-

ogy, and insect physiology. He has previously supervised 8 graduate students, 10 postdoctoral fellows and 4 visiting scientists, and currently supervises 6 graduate students, 1 postdoc and 4 technicians.

The focus of Dr. Isman's research is the discovery and development of natural insecticides from plants. He has authored or co-authored almost 100 refereed publications including 10 book chapters, co-edited two books, given over 50 invited lectures, and received over \$1.8 million in extramural research funding. He has served as a peer reviewer for 30 journals and 10 granting agencies, and is on the editorial board of four journals, including the *Journal of Chemical Ecology* and the *Bulletin of Environmental Contamination and Toxicology*. He serves on the scientific advisory board of three companies, on the consultative committee of The Neem Foundation, and is a former president of both the Phytochemical Society of North America (1991-92) and the Entomological Society of British Columbia (1987-88 and 1998-99). Dr. Isman also organized and chaired the World Neem Conference in Vancouver in 1999.

### Candidates for ISCE Councilors:

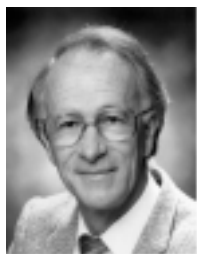
#### Professor Wilhelm Boland, Germany



Professor Wilhelm Boland obtained his Doctorate in Chemistry at Cologne University (1978), and did further postdoctoral work at Cologne University, obtaining his Habilitation in 1986. From 1987-1994, he became Professor of Organic Chemistry at Karlsruhe University, before moving to

Bonn University in 1994 to become Professor of Bioorganic Chemistry. Two years later, he joined the new Max Planck Institute of Chemical Ecology in Jena, where he is currently a director and Scientific Member of the Institute. Professor Boland has conducted research in many areas of chemical ecology, including the identification and synthesis of algal pheromones, biosynthesis of defense compounds in plants and insects, and the role of volatiles and other chemicals in plant insect interactions. He has published about 170 papers, reviews, and chapters. His contributions to cutting-edge chemical ecology research were recognized by the ISCE when he was elected as the first Silverstein Simeone Lecturer at the ISCE meeting in Chile in 1995.

### Professor Ben Burger, South Africa.



Professor Dr. Barend (Ben) Burger, Professor and Head of Organic Chemistry at the University of Stellenbosch in South Africa, is a long-term member of the ISCE. He received his B.Sc. in Chemistry and Mathematics, the M.Sc. in Inorganic Chemistry and the D.Sc. in Organic Chemistry under Prof C.F.

Garbers at the same university. As Alexander von Humboldt Fellow he did post-doctoral work with Prof. L. Birkofer at the University of Cologne and spent a sabbatical year with Prof. H. Schildknecht in Heidelberg in 1975.

Prof. Burger started semiochemical research in 1967, working on the sex attractant of the Pine Emperor Moth and later became involved in the identification and synthesis of constituents of the exocrine secretions of South African antelopes and other mammals, and dung beetles. He has also developed methods for analysis of volatiles in gaseous and aqueous samples for use in his semiochemical research and in the analysis of volatile pollutants. A current project focuses on the development of simplified 2-dimensional GC and GC-MS instrumentation for semiochemical analysis. He has hosted 7 postdoctoral associates from Europe and graduated 23 postgraduate students. He has published over 70 papers, four patents, and two books.

Prof. Burger received the Havenga Prize for Chemistry from the South African Academy for Arts and Science in 1989 and the Shimadzu Trophy for Outstanding Contribution in Chromatography in 1991. He was a Tamkan Chair Lecturer at the Tamkan University in Taiwan in 1990 and is a Fellow of the Royal Society of South Africa. He serves on the Editorial Board of the Journal for High Resolution Chromatography and is a Member of the Board of the International Foundation for Environmental Assistance for Russia.

### Dr. Susanne Dobler, Germany



Professor Susanne Dobler received her Diploma degree in Biology in 1990 from the University of Erlangen, Germany. She then went on to do a PhD under the supervision of Dr. M. Rahier at the University of Basel, Switzerland, studying the chemical ecology of plant insect

interactions. Her research focused on the evolution of food spectra in phytophagous insects, and the way that seques-

tration of plant compounds evolves and influences later host switches. After finishing her PhD in 1993, she did several years of postdoctoral studies, first with Prof. J.M. Pasteels at the Free University of Brussels, Belgium, and then two years at the University of Colorado with Profs. B.D. Farrell and M.D. Bowers. Currently, Dr. Dobler is an Assistant Professor at the University of Freiburg, Germany, and her research investigates the repeated switch to sequestration of pyrrolizidine alkaloids and iridoid glycosides in the evolution of *Longitarsus* flea beetles.

### Dr. Nelida Gomez, Panama



Dr. Néilda E. Gómez is a staff scientist at the Smithsonian Tropical Research Institute (STRI), in the Republic of Panama. She received her B.Sc. in Chemistry from the University of Panama, her M.Sc. in Pharmacognosy from the University of Rhode Island, USA, and her PhD in Natural Sciences from the Technological University of Braunschweig, Germany, in 1997.

Dr. Gómez worked as a research associate at the University of Panama from 1988-89, where she carried out in-house bioassays, and isolated and purified bioactive compounds from terrestrial and marine plants, and as scientific coordinator of the research station on Barro Colorado Island administered by STRI from 1989-1992, where she oversaw the day-to-day scientific operations. She was honored as an Outstanding Young Person by The Junior Chamber, Panama, in 1998 for her efforts to strengthen science and technology in Panama, and received fellowships from the German Academic Exchange Service and the Fulbright program to pursue graduate studies.

Her current research interests include chemical ecology of chrysomelid larvae from Panama; histochemistry of cassidine larvae (Chrysomelidae); chemical, biological, and ecological studies of the plant genus *Cordia* (Boraginaceae); chemical polymorphism of *Cordia curassavica*, a plant species containing lower terpenoids; and the role of nutrient availability in allocation to defense.

Dr. Gómez serves as a liaison to the STRI academic programs, and as advisor in several committees of Panamanian institutions that promote and support science and technology. She speaks Spanish, English, German, and French.

### Dr. Ann Hagerman, USA



Dr. Hagerman received her BSc in biology and chemistry from Occidental College, Los Angeles, and a Ph.D. in biochemistry from Purdue University, working with Larry Butler on the specificity of tannin-protein interactions. After postdoctoral work at

Purdue, she joined the faculty of the Department of Chemistry & Biochemistry at Miami University in Ohio, where she is currently a full professor.

Her research interests are in the areas of polyphenolic chemistry and biochemistry. In particular, I am interested in the effects of phenolics on mammals, including mammalian herbivores and humans. Phenolics are found in virtually all plants, so relatively high levels of these secondary compounds are routinely consumed along with plant constituents of the diet. High molecular weight phenolics have unique characteristics including the ability to tightly and specifically bind proteins, the ability to serve as potent antioxidants, and the tendency to remain intact within the gastrointestinal tract. These characteristics combine to make polyphenolics a class of natural products with unique biological availability and effects. Many of our studies in the past have focused on the effects of polyphenolics on protein metabolism. More recently, we have focused on their antioxidant activities. A major continuing component of my research program is in the development of simple, specific analytical methods which serve the needs of ecologists to obtain chemically accurate data on large numbers of samples. My work has been funded by NSF and NIH in addition to several corporations.

Dr. Hagerman has reviewed numerous manuscripts for JCE, and has served on the editorial board of the journal. She is committed to ensuring that the chemical underpinnings of our discipline remain strong. Growth in our discipline depends upon attracting the interests of chemists who can provide us with tools, mechanisms, and understanding of the chemical basis for interactions between organisms. In order to attract chemists we must ensure that the work we do includes rigorous, detailed chemistry as well as rigorous and detailed ecology and biology. Chemical ecologists are poised to make substantial contributions to interdisciplinary efforts in research, and Dr. Hagerman is committed to making sure that the Society continues to grow and encourage this enterprise.

### Dr. Steven Seybold, USA



Steve Seybold has been an active participant of the ISCE since the mid-1980's, attending numerous ISCE meetings, publishing frequently in the *Journal of Chemical Ecology*, and serving on the Editorial Board of the *Journal*. He is currently an Assistant Professor in the Departments of Entomology

and Forest Resources at the University of Minnesota. He has a B.Sc. in Forestry (University of Wisconsin-Madison, 1983) and a Ph.D. in Entomology from University of California at Berkeley (1992), where he studied the chemical ecology of conifer-feeding bark beetles and natural products chemistry with Drs. David Wood and Isao Kubo. His postdoctoral work with Gary Blomquist focused on the biochemistry and molecular biology of bark beetle pheromone production. His current research projects include studies of pheromone biosynthesis in *Ips* spp. and *Dendroctonus* spp. scolytids; isolation and identification of sex pheromones for wood-destroying anobiids, lyctids, and bostrichids; and field studies of the biological activity of aggregation pheromones of nitidulid species that vector oak wilt disease in Minnesota (in collaboration with R.J. Bartelt, USDA Peoria). Steve is also a member of the Entomological Society of America and the American Chemical Society and is a frequent reviewer for journals from these societies.

#### Positions Available:

#### 1. Postdoc position in chemical ecology – entomology - phytopathology

Plants possess various defense mechanisms against pathogens and herbivory. Understanding how plants optimize defense strategies against a range of assailants requires insight into cost-benefit trade-offs. Possible trade-offs in multiple-defense/multiple-target systems will be identified comparing temporal and spatial defense distribution over a range of plant species. Candidate will address interactions between below- and above-ground defenses, starting with a comparison of wild cotton species and continuing to plant-pathogen-herbivore systems native to the Netherlands. **Requirements:** PhD in biology with specialization in either botany, soil ecology, entomology or phytopathology. Experience with HPLC and/or GC-MS desirable, but not mandatory. **Salary:** Dutch standard Postdoc conditions, and depending on experience. **Duration:** 2 yr, possibility of a 1 yr extension. **Information:** Dr. Felix Wäckers, Tel: (0031) 26 479 1306, Fax: (0031) 26 472

3227, E-mail: [waeckers@cto.nioo.knaw.nl](mailto:waeckers@cto.nioo.knaw.nl). or Dr. Wim van der Putten, Tel: (0031) 26 479 1203, E-mail: [putten@cto.nioo.knaw.nl](mailto:putten@cto.nioo.knaw.nl). See also our website at <http://www.nioo.knaw.nl>. Send your resume to Mr. A.M.A. van Oploo, head of personnel, Centre for Terrestrial Ecology, PO Box 40, 6666 ZG Heteren, The Netherlands

## 2. Postdoctoral and Predoctoral Positions, Defense Strategies in Herbivorous Hymenoptera.

At least 7 postdoc and 1 predoctoral positions of 18-42 months available during 2000-2004, to study defense strategies in herbivorous hymenoptera, as part of a research training network. Requirements: Applicants should be from European Union or Associated states, applicants expected to work in country other than country of origin. Locations of 7 collaborating laboratories: Bruxelles, Louvain-la-Neuve (Belgium); Pisa (Italy); Delémont (Switzerland); Leiden (Netherlands); Ulm, Geissen (Germany). Information: [www.kbinirsnb.be/incheco](http://www.kbinirsnb.be/incheco), or Dr. Jean-Luc Boevé, email [boeve@kbinirsnb.be](mailto:boeve@kbinirsnb.be)

## Upcoming Meetings of General Interest:

- XXI International Congress of Entomology. Iguassu Falls, Brazil, August 20-26, 2000. Email: [ice@sercomtel.com.br](mailto:ice@sercomtel.com.br).
- International Organization for Biological Control, Working Group, 25<sup>th</sup> Anniversary Meeting, "Use of Pheromones and Other Semiochemicals in Integrated Control", Samos, Greece, Sept 25-29, 2000. Information: <http://phero.net/iobc>; contact: Maria Konstanopoulou, Email [mkonstan@mail.demokritos.gr](mailto:mkonstan@mail.demokritos.gr).
- Combined annual meeting of the Entomological Societies of America, Canada, and Quebec, Montreal, Dec. 3-7, 2000. Information: Judy Miller, email [meet@entsoc.org](mailto:meet@entsoc.org), [www.entsoc.org/annual\\_meeting/2000/2000.html](http://www.entsoc.org/annual_meeting/2000/2000.html).

## CUT OUT BALLOTS AND MAIL TO ISCE SECRETARY.

You may also register your votes by email to the secretary at [jocelyn.millar@ucr.edu](mailto:jocelyn.millar@ucr.edu). Please ensure that your email contains your full name. **Ballots or Emails must be received by August 4, 2000 in order to be registered.**

### BALLOT VICE-PRESIDENT, ISCE

\_\_\_\_\_ Dr. Murray Isman

\_\_\_\_\_ Other \_\_\_\_\_

### BALLOT COUNCILORS, ISCE

Please vote for only 4 of the 6 candidates.

\_\_\_\_\_ Dr. Wilhelm Boland, Germany

\_\_\_\_\_ Dr. Ben Burger, South Africa

\_\_\_\_\_ Dr. Susanne Dobler, Germany

\_\_\_\_\_ Dr. Nelida Gomez, Panama

\_\_\_\_\_ Dr. Ann Hagerman, USA

\_\_\_\_\_ Dr. Steven Seybold, USA



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