



## IN THIS ISSUE

- [Secretary/Editor's Message](#)
- [Update on the 23rd Annual Meeting of the International Society of Chemical Ecology to be held in Jena, Germany July 22-26, 2007](#)
- [Professor Wittko Francke Awarded the ISCE Outstanding Service Award](#)
- [ISCE ELECTIONS, 2007 Candidate for ISCE Vice-President](#)
- [ISCE ELECTIONS, 2006 Candidates for ISCE Councilors](#)
- [Meetings](#)
- [Obituary](#)

The ISCE Newsletter is published triannually, normally in October, February, and June. It is financed through member contributions. None of the material contained herein may be reprinted without the proper written acknowledgment of the editor. Address all correspondence and newsletter submissions to the editor (Stephen Foster, [stephen.foster@ndsu.edu](mailto:stephen.foster@ndsu.edu)).

Deadline for the next issue is May 25, 2007.

## Secretary/Editor's Message

Wilhelm Boland and his organizing committee have put together an exciting program for the 2007 ISCE Annual Meeting in Jena, Germany. Details are given below in a [downloadable pdf flyer](#). The meeting is a little over 3 months away, so it is time to start organizing your trip and making bookings! For complete details about registration and accommodation, please access the meeting website (see the link on this page).



Candidates for vice-president and councilor have now been finalized (see below). The electronic ballot (including instructions) for voting for these positions can be found on the front page of the ISCE website. Please vote for the vice-president candidate, even though there is only one candidate, and vote for no more than four councilor candidates. All voting must be carried out before the end of May 15 2007 (USA CST).

It has been a fairly quiet period for the society over the last few months. There are a few bits of news, however, I would like to share with you. We all know of, and appreciate, the success of the 2006 Barcelona meeting organized by angel Guerrero and colleagues. Recently, Angel presented the society with a gift of 2300 Euros, being the profit from the meeting. Thanks to the endeavors of various people, especially Jocelyn Millar, the biorational-focused pest control company Suterra LLC has generously agreed to sponsor the Silver medal. The Silver medal is the Society's most

prestigious award, recognizing a career-long achievement in the field of chemical ecology. The sponsor's contribution helps to defray the costs of the award winner to attend the meeting and deliver their acceptance talk, which is always a highlight of the annual meeting. The award's previous sponsor, Fuji Fine Chemicals, had decided to discontinue their sponsorship after a number of years of generous support.



Finally, I am saddened to inform you of the passing away of Milt Silverstein. Milt Silverstein was one of the pioneers of the field of chemical ecology and, with his colleague, the late John Simeone, established the Journal of Chemical Ecology. He will be sadly missed by many.

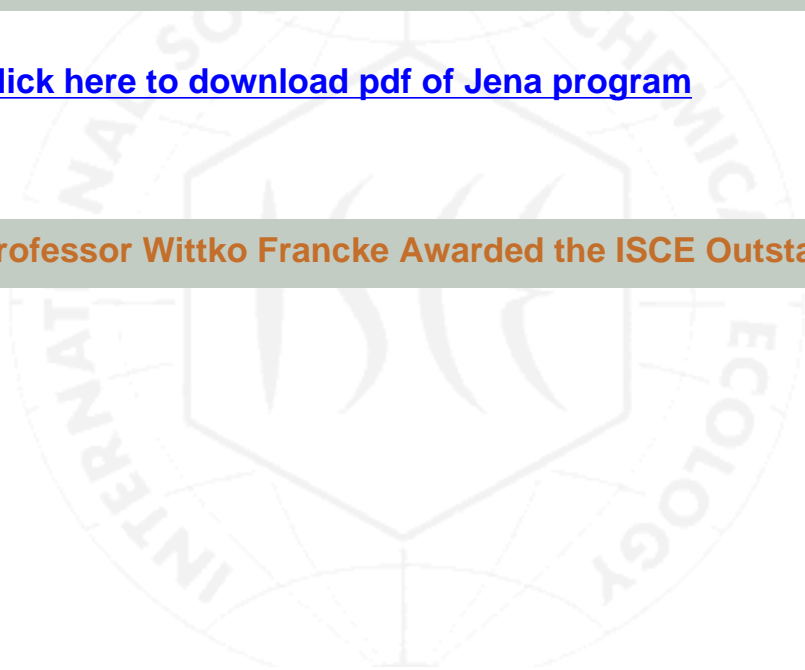
### **Professor Milt Silverstein at the 2001 ISCE Annual Meeting at Lake Tahoe**

**Stephen Foster**  
**Secretary, ISCE**

**Update on the 23rd Annual Meeting of the International Society of Chemical Ecology to be held in Jena, Germany July 22-26, 2007**

[Click here to download pdf of Jena program](#)

**Professor Wittko Francke Awarded the ISCE Outstanding Service Award**



The ISCE Executive Committee created the ISCE Outstanding Service Award in 2001 in response to the need to recognize and honor outstanding service to the Society that extended over many years, and/or encompassing service of many different types. Unlike the Society's two other major awards, the Outstanding Service Award is not intended as an annual award, but is made on the recommendation of the ISCE Executive Committee at irregular intervals as circumstances warrant. The Society was pleased to honor Professor Wittko Francke with the Outstanding Service Award at the 2006 ISCE annual meeting in Barcelona. The Society actually had intended to make the award at one of the two previous meetings, but Professor Francke was unable to attend those meetings. Even then, the award was long overdue, because Professor Francke has a truly remarkable record of generous and selfless service to our Society. Both overtly and covertly, he has helped to sustain and guide the Society since its inception. To touch on but a few highlights of his contributions, he is one of the few founding life members of the Society. He served as President (1989-90), and he hosted the highly successful meeting in Hamburg in 2002, which was the most well-attended ISCE meeting ever held. He has been an ISCE councilor, and continues to serve as the Society's archivist. He has served on a number of committees, including the fundraising and student travel award committees for multiple years. He was selected as the ISCE's Silver Medal award winner in 1995. In a Society that was founded and still is run entirely by members volunteering their time and effort, Professor Francke's tireless efforts and advocacy of the Society and the discipline of chemical ecology have been truly extraordinary. The Society as it exists today is due in substantial part to his contributions. In a small token of gratitude and recognition of these efforts spanning more than two decades, at the final banquet of the 2006 meeting, ISCE President Jocelyn Millar presented Professor Francke with a silver tray inscribed with the words:

Professor Dr. Dr. h. c. mult. Wittko Francke, in Recognition of Outstanding Service to the International Society of Chemical Ecology



**ISCE ELECTIONS, 2007 Candidate for ISCE Vice-President**



Wilhelm Boland studied Chemistry at the Universities Münster and Cologne and received his Diploma and Ph.D. from the University of Cologne in 1975 and 1978, respectively. He became Research Associate at the Institute of Biochemistry (University of Cologne) until 1987 and moved then to the University of Karlsruhe as a Professor for Organic Chemistry. In 1994 he became Full Professor for Bioorganic Chemistry at the University of Bonn. In 1997 he joined the Max Planck Society and became Director of the Department of Bioorganic Chemistry in the Max Planck Institute for Chemical Ecology in Jena. He was Managing Director of the newly founded Institute from 1997 to 2001. Since 1997 he has also been associated with the Friedrich Schiller University in Jena as an Honorary Professor.

Professor Boland was the 1st Simeone-Silverstein lecturer (1995) of the International Society of Chemical Ecology. He is a Fellow of the Royal Chemical Society of Great Britain, and a member of the NRW Academy of Sciences since 2003. In 2005 he received the Hans-Herloff-Inhoffen Medal from the Technical University and the Society for

Biological Research in Braunschweig. His major fields of research cover plant-insect interactions with special emphasis on induced defences in plants. Typical topics are: volatile biosynthesis, cross-talk between signalling pathways in plants, synthetic elicitors, and defensive chemistry in leaf beetles. He is a regular attendee at ISCE meetings and is on the editorial advisory board of Journal of Chemical Ecology.

### ISCE ELECTIONS, 2006 Candidates for ISCE Councilors





Dr. Jörg Bohlmann is Associate Professor, Distinguished University Scholar, and NSERC Steacie Fellow in the Michael Smith Laboratories at the University of British Columbia, Vancouver, Canada (since 2000). He received his Ph.D. from the Technical University of Braunschweig, Germany (1995). He was a postdoctoral fellow (1995-1997, Feodor Lynen Fellow of the Alexander von Humboldt Foundation) at the Institute of Biological Chemistry at Washington State University, Pullman, USA. He then joined the Max Planck Institute for Chemical Ecology in Jena, Germany (1998-2000). Jörg Bohlmann's research at the University of British Columbia deals with the genomics of defense against insects in conifers and poplars. Since 2001, he has been a project leader of two large scale international genomics project funded by Genome Canada. A major research focus in his laboratory is on the molecular biochemistry of terpenoid defenses in conifers.

Dr. Angel Guerrero is Professor of Research of the National Research Council (CSIC) in Spain. He studied Chemistry at the University of Barcelona (Spain) and received his PhD degree from the same University in 1974. During his postdoctoral period (1976-1979), at Cornell University under the supervision of Prof. Jerrold Meinwald, he discovered the fascinating world of Chemical Ecology. Back in Spain, he set up the first laboratory of this discipline in the country. After standing as Research Associate, he was promoted to Research Scientist in 1987 and to Professor of Research in 2001. He is author or coauthor of ca. 135 publications, 6 patents and has imparted more than 20 invited conferences in several universities and research centers. He has published and reviewed papers for the Journal of Chemical Ecology, actively participated in several ISCE meetings and hosted the 22nd ISCE Meeting in Barcelona, 2006. His main interests are focused on the identification, synthesis and biological activity of insect pheromones and the development of pheromone antagonists as potential agents for pest control.



Dr. Jörg Hardege undertook his undergraduate (MSc) degree studies in Biology between 1980 and 1985 in Germany at the University of Oldenburg where he joined the research group of Prof. E. Zeeck in 1985 to start working on the identification of marine invertebrate chemical signals in the Department of Chemistry. During his PhD (summa cum laude in 1992), he and his wife Dr. Helga Bartels-Hardege developed a strong interest in chemical ecology of Nereidid polychaetes. Pheromones in ragworms have become the group's trademark research subject. As such, most of his research work in St. Andrews (post-doctoral researcher 1993-1995), as lecturer in chemical ecology at Cardiff University (1996-1999) and recently at Hull University (Senior lecturer for chemical ecology) has focused on understanding how marine invertebrates 'utilize'

chemical signals e.g. in mate choice. Having identified a number of pheromones in marine invertebrates, the majority of the research team now studies the ecological and evolutionary implications of the use of pheromones in a number of Nereis species, although chemical signals in aquatic organisms (shore crabs, lobster, crayfish, otters) still feature strongly. Right from the start of his research career as a student, Dr. Hardege joined the ISCE, which he believes is an ideal forum to foster collaborations between chemists and biologists. Since 2004 he is the Head of Department of Biological Sciences at Hull University.

Dr. Torsten Meiners is assistant professor at the Institute of Biology, Free University of Berlin, Germany. He studied biology at the University of Wuerzburg (1987-1994) and finished his Ph.D. in 1999 at the Chemical Ecology lab of Prof. Monika Hilker at the Free University of Berlin. His work on elm-elm leaf beetle-parasitoid interactions established that oviposition of herbivorous insects can induce plants to emit synomones that attract egg parasitoids. After working as a post-doc on learning capacities of parasitoids in the lab of Joe Lewis in Tifton, Georgia, he worked with Peter Anderson on electrophysiology and behaviour of herbivores in the Chemical Ecology lab in Alnarp, Sweden, before he returned to Berlin.

Dr. Meiners' research interest is the Chemical Ecology of multitrophic interactions. He surveys the roles of chemical and structural diversity of the vegetation and of induced plant defences on host and host plant location strategies of herbivores and their parasitoids. His teaching activities comprise lectures and practical courses on Chemical and Behavioural Ecology as well as on multitrophic interactions. In 2004 he was one of the hosts of the International Symposium on Insect-Plant Relationships (SIP-12) in Berlin. Dr. Meiners has been an ISCE member since 1998 and is a frequent attendee of ISCE meetings. Furthermore, he is member of the Behaviour of Parasitoids (BEPAR) group and Associate Editor of *BioControl*. He is co-editor of the book *Chemoecology of Insect Eggs and Egg Deposition* and regularly publishes and reviews papers in chemoecological journals including the *Journal of Chemical Ecology*.







Dr. Caroline Müller recently started as professor at the Department of Chemical Ecology at University of Bielefeld, Germany. After studying Biology at the Free University of Berlin, Germany, she obtained her PhD (1999) under the supervision of Prof. Monika Hilker, working on plant-insect interactions. A post-doc with Prof. Alan Renwick at Boyce Thompson Institute, Cornell University, USA followed in which she characterized feeding stimulants for potato specialists. In a second post-doc with Prof. Paul Brakefield in Leiden, The Netherlands, she worked on quantitative genetics of herbivorous sawflies and plant-insect-predator relationships. In 2003 she joined the group of Prof. Markus Riederer at University of Würzburg, Germany, where she led the group of chemical ecology. There, she studied, among other things, the role of plant surfaces in plant-insect interactions and co-edited a book on the Biology of the Plant Cuticle. Her research focuses on the chemo-ecology of secondary plant metabolites which are involved in feeding stimulation and which can be varied by herbivore attack and abiotic factors. Her teaching activities comprise lectures and practical courses in

chemical ecology, ecology and botany. She joined the ISCE as a member in 1998 and is a frequent attendee of the annual meetings of the society. She regularly publishes and reviews manuscripts in chemoecological journals including the Journal of Chemical Ecology and is associate editor of *Entomologia Experimentalis et Applicata*.

Dr. Aijun Zhang is a research chemist with the U. S. Department of Agricultural, Agricultural Research Service, Beltsville Agricultural Research Center, Chemicals Affecting Insect Behavior Laboratory in Beltsville, Maryland. He received his Ph.D. degree in Forest Chemistry in 1992 from State University of New York-College of Environmental Science and Forestry, Syracuse, New York, working on the pheromone chemistry of insect. He then took his postdoctoral training under the supervision of Dr. Wendell Roelofs in Cornell University, Geneva, New York. Dr. Zhang is a life time member of the International Chemical Ecology Society and attends the annual meeting since 1994 in Syracuse. He regularly publishes and reviews manuscripts in the *Journal of Chemical Ecology*. His major research currently is in the field of natural products, insect chemical communication, and the use of behavior-modifying chemicals for control of agricultural insect pests.



## Meetings

### **Mass Spectrometry for Chemical Ecology: Determination of Nonvolatile compounds** 20-21.July, 2007, MPI for Chemical Ecology, Jena, Germany

Mass spectrometry is one of the leading techniques for detection and analysis of extremely complex and fragile biological molecules. Thus, a thorough awareness of modern mass spectroscopic techniques is an absolute prerequisite for frontier-level investigations in molecular chemical ecology.

#### **Course Description**

A comprehensive course covering both fundamentals and modern aspects of mass spectrometry (MS) with emphasis on biological and biochemical applications. As the most sensitive analytical technique on hand for qualitative and quantitative investigations, MS plays a vital role in chemical ecology. Topics include: contemporary methods of gas phase ion formation [electron ionization (EI), chemical ionization (CI), electrospray (ESI), atmospheric pressure chemical ionization (APCI), matrix assisted laser desorption ionization (MALDI)], detection, and mass analysis. Detailed interpretation of organic mass spectra for structural information with special emphasis on even-electron-ion fragmentation (Note: interpretation of EI spectra and GC-MS methods will not be covered). Qualitative and quantitative applications in chemical ecology will be illustrated using examples from proteomics, lipid chemistry and secondary metabolite identification. Application of isotope-ratio mass spectrometry (IRMS) to chemical ecology research will be discussed. The course will finish with demonstrations at the mass spectrometry facility at the MPI for Chemical ecology of some of the techniques covered in this course.

The number of participants will be limited to 25 persons to maintain a close interaction with the instructors. Chemical ecologists with little or no analytical chemistry background are strongly encouraged to participate. The main objective of this course is to promote communication between mass spectrometrists and scientists working in molecular biology or field-ecology.

The fee for the two-day course is **400 €** for ISCE members, and **800 €** for non-members. The fee includes all lectures and instructions, teaching manuals, refreshments during breaks, two lunches, one dinner and a final party.

### **Summerschool, Human Olfaction 2007**

Will take place from the 29th of July until the 4th of August 2007 at the Department of Otorhinolaryngology of the University of Dresden Medical School:

[http://www.tu-dresden.de/medkhno/riechen\\_schmecken/summerschool\\_2007.htm](http://www.tu-dresden.de/medkhno/riechen_schmecken/summerschool_2007.htm)

Contact: Thomas Hummel (thummel@mail.zih.tu-dresden.de)

### **Floral and Vegetative Volatiles**

October 7-12, 2007, Eurotel Victoria, Les Diablerets, Switzerland

Chair: Eran Pichersky, Vice Chair: Wittko Francke

<http://grc.org/programs.aspx?year=2007&program=floral>

**Overview:** While the first two Gordon Conferences in this series were devoted to consideration of floral volatiles, our 2007 meeting will be the first to expand to cover the entire gamut of plant volatiles, from chemistry and biochemistry to physiology and ecology. The field of plant volatiles has experienced a major acceleration in the rate of discovery due to the development of new techniques in metabolomics and genomics. A recent special issue of Science (10th February 2006, vol. 311) on the theme of plant volatiles contained a number of articles about the discovery of new plant volatiles in exotic plants, the evolution of the enzymes responsible for the synthesis of new volatile compounds, the ecological roles of plant volatiles in enhancing plant fitness, and the dietary properties (for humans) of plant volatiles. This conference will discuss new discoveries and approaches in the following areas:

- Physiological and ecological roles of plant volatiles produced in vegetative tissues, including plant-herbivore interactions.
- Physiological and ecological roles of floral volatiles in reproduction, including plant-pollinator interactions.
- Techniques and methodologies for studying plant volatiles.
- Chemistry and biochemistry of plant volatiles.
- Roles of plant volatiles in human affairs.

Oral presentations will be complemented by poster sessions scheduled for the afternoons. All attendees are encouraged to contribute a poster.

**Application to Attend the Conference:** Individuals interested in attending the conference should follow the on-line links on the GRC website. It is expected that the majority of the applications will be accompanied by an abstract that will be presented as a poster. A few abstracts will be selected for short talks.

**Conference Support:** A number of fellowships are available specifically for this conference in the

following categories: Students and post-docs who received their Ph.D. in the last five years and who are American citizens or permanent residents (women and minorities are particularly encouraged to apply), and early career scientists from Europe. To request funding, please apply for the conference through the website and also send an email to the Chair with justification for the request and includes the poster abstract within the body of the email. Deadline for applications is June 1, 2007. The GRC also has a limited number of Carl Storm Under-Represented Minority Fellowship Awards for first-time GRC attendees.

## Obituary



### L. E. L. "Bets" Rasmussen (1938-2006)

On Sunday September 17, 2006, family, friends, scientists, and elephants lost a great ally. AChemS member Dr. L.E.L. (Bets) Rasmussen succumbed to illness while in the presence of close family in Seattle, Washington, USA. To the scientific and elephant world, Bets may be known best for her 15-year quest to identify the estrous pheromone in Asian elephants. Along with collaborators, she succeeded in this task, determining the compound structure to be Z-7-dodecenyl acetate. When published by Rasmussen et al. (Nature 1996), this was a remarkable breakthrough. For a mammal, it was astounding that a single compound would have such profound importance to reproduction. Further, many moths use the same compound as part of their pheromone, a fascinating case of chemical convergent evolution. Most scientists rarely have one landmark discovery in their lifetime. Bets Rasmussen was just beginning to increase our understanding of elephants. Along with collaborators, Bets revealed the chemical signature of "moda" (or honey) musth in young male Asian elephants (Nature 2002). She also helped

understand the chemical dynamics of another elephant pheromone convergent with an insect pheromone, namely frontalin (Nature 2005). Bets worked proficiently in multiple areas including biochemistry, chemistry, behavior and molecular biology. While she also studied numerous other species such as sharks and whales, her passion was elephants. Bets assisted elephant conservation in the wild and in captivity. She cared deeply about elephants and about the people who worked with and for elephants. Bets Rasmussen was a tireless worker, a vibrant speaker and the best of friends. We have lost not only a great scientist, but also one of the most enthusiastic and nicest people you could ever meet. She enjoyed water-skiing, snorkeling and scuba diving. Survivors include her husband Rei, sons, Erik and Rob, two brothers and three sisters. Remembrances may be made to Riddle's Elephant and Wildlife Sanctuary in Greenbrier, AR ([elephantsanctuary.org](http://elephantsanctuary.org)).

**Career: Born November 11, 1938, Summit, NJ**

**1960** A.B. in Biology, Stanford University

**1964** Ph.D. in Neurochemistry, Washington University, St. Louis

**1964** Postdoctoral Fellow, National Institutes of Health

**1966** Research Biochemist, Dow-Corning Corporation

**1975** Research Associate, Department of Zoology, Washington State University

**1977-2001** Research Professor, Department of Environmental & Biomolecular Systems, OGI School of Science and Engineering, Oregon Health & Science University

*Contributed by Bruce Schulte and Tom Goodwin*



Stephen Foster, Editor  
Department of Entomology  
North Dakota State University  
Fargo, ND 58105, USA  
[Stephen.foster@ndsu.edu](mailto:Stephen.foster@ndsu.edu)

Visit the ISCE Webpage at <http://chemecol.org/>

[homepage](#)

