



NEWSLETTER

International Society of Chemical Ecology

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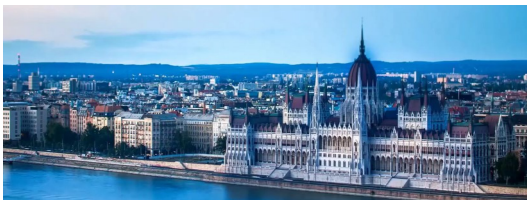
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— Important Dates —

- ◇ **31 January 2018**
Deadline for nominations of a new vice-president, councilors, and candidates for ISCE awards

2018 ISCE Meeting: Budapest



The 2018 ISCE Annual Meeting will be held in Budapest, Hungary, on August 12-18, 2018. It will be co-organized by Miklós Tóth (Plant Protection Institute, Centre for Agriculture Research, Hungarian Academy of Sciences) and Zoltán Imrei (Hungarian Plant Protection Society). The venue will be the Novotel Budapest City Hotel. Information and links to the official conference website will soon be available at the ISCE website, at the link below: <http://chemecol.org/annualmeeting.shtml>



2017 ISCE Meeting in Japan: Summary

Dear ISCE members,

On behalf of the organizing committee, we cordially thank all participants of the second joint meeting of the 33rd annual meeting of the ISCE and the 9th meeting of the APACE (Asia-Pacific Association of Chemical Ecologists) that was held in Kyoto, Japan from 23 - 27, August, 2017.

The conference venue was Ryukoku University, one of the oldest universities in Japan. The program included a total of 15 sessions and 2 poster sessions. There were 358 participants from 31 different countries, 132 oral presentations and 176 poster presentations.

We would like to thank all session organizers who selected excellent speakers and the local and international scientific committee members for their important advice. Special thanks to (past) presidents of societies; Christer Löfstedt (ISCE) and Junwei Zhu (APACE) for their active support.

We had award lectures of ISCE Silver Medal Award (to Professor Gary J. Blomquist), ISCE Silverstein-Simeone Lecture Awards (to Professor Robert A. Raguso), ISCE Early Career Award (to Dr. Kerry Mauck), APACE Lifetime Achievement Award (to Professor Rituo Nishida and Professor Keng Hong Tan) and APACE Young Scientist Award (to Dr. Takuya Uehara and Dr. Kai Lu). Awardees of ISCE Student Travel Awards, APACE Student Travel Awards and Student Presentation Awards were commended in the business meeting and the closing ceremony.

We also had four plenary lectures by Professor James H. Tumlinson, Professor Wilhelm Boland, Professor Hiroshi Kudoh and Dr. Yongping Huang. Furthermore, the symposium celebrated the 90th birthday of Prof. Jerrold Meinwald on the first day (Aug 23). During the ceremony, a concert by Professor Meinwald and his wife was performed.

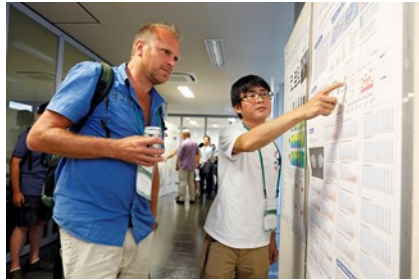
We thank all the participants again: everyone made the joint meeting academically so active and comfortable. We are looking forward to seeing you next year in Budapest, Hungary.

Junji Takabayashi and Naoki Mori, Organizers



Impressions of Kyoto 2017

Courtesy Junji Takabayashi. Additional photographs are available on the website: <http://www.2017isce-apanet.jp/>



Business Meeting

ISCE Treasurer's Report (as of 18 July 2017) by J. D. Allison

The recovery and subsequent increase of ISCE accounts from the low point set in 2008, has resumed after a decrease in 2015, to the current market value of \$298,958.11, an increase of \$23,705.62 from the year-end value in 2016 (\$275,252.49). Society assets are distributed in cash (10.98%), fixed income investments (26.41%) and equity investments (62.8%). To maximize the prospects of a modest appreciation of our portfolio (mostly to keep pace with inflation), our spending should be limited to 4% of the portfolio value not including new revenue from membership fees and sponsors' gifts.

The society received three corporate gifts in 2016. DELWART BIOTEC sponsored the Silver Medal Award (\$5000). Trécé Incorporated sponsored the Student travel awards (\$2500). Springer Publishing Co. supported the Silverstein-Simeone Award (\$2000). Thanks are due to these corporations. ISCE reimbursed our Silver Medal, Silverstein-Simeone and Early Career Award winners for 2016 for their travel expenses (Silverstein-Simeone winner Dr. Martin Heil - \$2,675.59; Silver Medal winner Dr. Mark Hay - \$2,588.70; Early Career Award Winner Dr. Georg Petschenka - \$2,061.97). We paid the 2016 webmaster (Dr. Rob Mitchell) \$1089.95 in fees to maintain the website. The ISCE contributed \$20,434 for Student Travel Awards, presentation awards and invited speakers at the 2016 ISCE annual meeting. We also paid \$990 for the development of a website for the 2016 ISCE annual meeting. Travel expenses for our Silver Medal Award winner, Silverstein-Simeone Award and Early Career Award winners for 2017 are pending. We have 464 active members.

As a tax-exempt, non-profit organization, the ISCE does not pay U.S. taxes. However, new rules require us to file an annual income statement to maintain our tax-exempt status. The process is very simple unless annual revenues exceed \$50,000.

My impression is that the new online ISCE member database is working well for most members.

Respectfully submitted,

Jeremy Allison, Treasurer

The treasurer's report 2016 was approved
by the ISCE members present at the business meeting.

Decision on future meetings

The ISCE Annual meeting in 2022 will be hosted by Renée Borges in cooperation with Kartik Sunagar, Shannon Olsson, and Radhika Venkatesan in Bangalore, India. The invitation to California presented by Jerry Zhu (joint meeting ISCE + APACE 2025) will be considered and a decision will be done at future meetings.

Student Travel Award Winners 2017

Claire Duménil, UK

Edita Ritmejeryste, Australia

Marc Bouwer, South Africa

Youngsun Joo, Germany

Ruth Schmidt, The Netherlands

Aino Kalske, USA

Srishti Batra, India

Erika Tóth, Sweden

Caroline De Clerk, Belgium

Adrian Brückner, Germany

Ching-Wen Tan, USA

Johanna Chemnitz, Germany



Best Student Presentations of the ISCE 2017 Meeting

Best oral presentations

Fee L. E. M. Meinzer, Germany

Ruth L. Schmidt, The Netherlands

Po-An Lin, USA

Claire Duménil, UK



Best posters

Shinnosuke Mori, Japan

Toshikatsu Haruma, Japan

Robert Maxwell Collignon, USA

Edita Ritmejeryste, Australia

Dilani K. Hettiarachchi, New Zealand

Ji-Fan Hsieh, Australia

Naoki Ube, Japan

Erika Tóth, Sweden

Daiki Okuhara, Japan

The Syntech Electrophysiology Award (best student or postdoc presentation on electrophysiology)

Takuya Nirazawa, Japan

ISCE Awards

ISCE Silver Medal Award

The ISCE Silver Medal for 2016 was awarded to Professor **Gary Blomquist** from the Department of Biochemistry & Molecular Biology, University of Nevada, Reno. Gary graduated at the University of Wisconsin - La Crosse in 1969 and obtained his Ph.D. in 1973 at Montana State University. He was trained with Larry Jackson, a lipid biochemist who pioneered research on insect cuticular lipids, especially hydrocarbons. As Gary prepared to take his first faculty position at the University Southern Mississippi, his mentor urged him to find a new niche because “there is no future in insect hydrocarbons!” Fortunately for this discipline, Gary was undeterred and proceeded to lead the emergence of this field as one of the most integrative and innovative areas of insect chemical ecology, combining the best molecular and developmental genetics of *Drosophila* with behavioral biology and ecology, mimicry, predator/parasitoid-host relationships, endocrine interactions, and much more. Gary pioneered investigations into the biosynthetic pathways and endocrine regulation of hydrocarbons in insects. By doing so he provided the substrate for his students and many other labs to investigate the utility of insect hydrocarbons in chemical taxonomy, their importance in sexual recognition, and their key function in colony organization of social insects. Gary was the first to show how inquilines use hydrocarbons to invade host colonies and to document the importance of hydrocarbons as pheromone precursors in some insects. His accomplishments in the area of insect nutrition (e.g., presence of a Δ^{12} -desaturase that can make linoleic acid *de novo*, production of polyunsaturated fatty acids that are converted to prostaglandins) completely revolutionized our understanding of the biochemistry of insect-plant interactions. In addition, his more recent work on the biosynthesis of monoterpene pheromones in bark beetles was one of the first forays into genomics in a non-model insect.

Gary's research productivity has been extremely high, as illustrated by his numerous publications in high quality journals, and the many times his work has been cited. The respect he commands is documented by his many awards and invited talks. Gary has an exemplary record of service, serving on five editorial boards, as the Dept. Chair and Graduate Program Director at University of Nevada - Reno, and as an organizer of many symposia and meetings. ISCE has benefitted enormously from his leadership as its President and Councilor.



Garry Blomquist presented this year's ISCE Silver Medal Award Lecture, sponsored by the Delwart Foundation. The title of his lecture was “Bark beetle pheromone and insect hydrocarbon production”.

ISCE Silverstein-Simeone Award

Robert Raguso is a professor at Cornell University, Department of Neurobiology and Behavior. Rob graduated at Yale College, New Haven in 1987 and obtained his PhD in biology at the University of Michigan, Ann Arbor in 1995. As he came for post-doc position to the University of Arizona in Tucson, he was already widely known and respected for his research on the evolution and behavioral ecology of insect-plant interactions, especially pollination and chemical communication mediated by floral scent. He promptly launched an ambitious study of the behavior of local hawkmoths and the chemical ecology of their feeding from (and hence pollination of) diverse flowering plants. He gained much valuable experience in experimental studies of moth flight behavior in a laboratory wind tunnel, and he continued to develop his expertise in the collection and analysis (by GC-MSD) of floral volatiles.



Rob has distinguished himself as a very influential scientist in the field of plant-insect interactions, pollination in particular, and for the volatile organic compounds that mediate such interactions. He is widely considered the foremost leader in chemical ecology of plant-flower interactions based both on his research papers as well as on his ability for synthesis, which is highly apparent to readers of “the core journals” and the most prestigious publishing venues in the field. Among his most important discoveries are: (a) the finding that both visual and olfactory cues are necessary for the hawk moth *Manduca sexta* to recognize flowers as sources of food; (b) a refinement of that work to show that hawk moths are most attracted to flowers when scent emanates from the visible flower; (c) an observation that artificial flowers emitting scent and elevated CO₂ are more attractive to foraging male hawk moths than flowers emitting scent alone and that females are similarly attracted, but only if the floral scent and elevated CO₂ are accompanied by volatiles from host-plant foliage; and (d) a discovery that floral humidity is a reliable sensory cue for nectar-foraging hawk moths to assess profitability.

Rob's work has yielded a number of superb studies that collectively elegantly and convincingly demonstrate the evolutionary consequences of plant-pollinator interactions, demonstrating along the way influences of interactions among visual, mechanical and olfactory signals in determining pollinator responses, scale-, context-, and environment-dependent impacts on outcomes of pollinator-plant interactions, and phylogenetic constraints on the composition of fragrances.

Robert Raguso presented the Silverstein-Simeone lecture of the ISCE, sponsored by Springer. The title of his lecture was “Perfume as dark matter: Unveiling the explanatory power of floral scent”.

ISCE Honorary Life Member

Professor Kenji Mori was named **Honorary Lifetime Member** of the International Society of Chemical Ecology at the 2017 meeting of the ISCE in Kyoto Japan. He is the fifth individual to be awarded this title in the history of the ISCE. His impact on chemical ecology has been profound and global. Through his unmatched skills with syntheses of compounds of known chirality Professor Mori has opened many doors to understanding of interactions between organisms that simply would not be possible otherwise. He served as President of the Society from 1992-93. He received the society's Silver Medal in 1996. **Congratulations Dr. Mori for all you have done to advance the field of Chemical Ecology.**



At the 2017 meeting in Japan, Professor Mori presented a lecture entitled "Recent results in pheromone synthesis".

ISCE Award for Outstanding Service

Professor John Romeo was honored by International Society of Chemical Ecology with the **Outstanding Service Award**. This award was made for his long-term service to the society. He spent 20 years editing the **Journal of Chemical Ecology** (the official journal the ISCE), first as a co-editor and then as the Editor-in-Chief. During his tenure with the journal he guided the journal into the digital era, built a team of high quality associate editors, recruited editors for special issues, added new features, and enhanced the journal's look. He also increased the rigor of the review process and thereby increased the journal's impact. In his capacity as Editor-in-Chief John also served our society as a member of the Executive Committee. Before he became our editor, he served the society as Secretary from 1990 to 1997. His service to the ISCE has been long and very impactful. **Congratulations Dr. Romeo for all you have done to ensure the quality of our science.**



ISCE Early Career Award

Kerry Mauck studied biology at the College of New Jersey and continued at Penn State University where she successfully defended her thesis in 2012 under the supervision of Dr. Mark Mescher and Dr. Consuelo De Moraes. The topic of her PhD was "Chemical ecology of interactions among plants, non-persistent viruses, and insects". As a postdoctoral research fellow, she spent three years at ETH Zürich, Institute for Agricultural Sciences, where she studied plant-mediated interactions among root microbes, plant viruses and virus vectors. In June 2016, Kerry became Assistant Professor of Vector Biology at the University of California, Riverside. The areas of her research are effects of plant viruses on communication between infected hosts and insect vectors, ecology of virus infections in wild plants, and plant virus evolution and adaptation.



Kerry's expertise includes entomology, virology, analytical chemistry, and molecular biology, which opens up a plethora of multidisciplinary research areas. She has shown how plant viruses can optimize their transmission using two complimentary tactics, that is, by making the plants more attractive to the aphid vectors of the virus, while simultaneously reducing the plant quality as aphid hosts, inducing the aphids to disperse rapidly once they have sampled the diseased plant and picked up the virus. This work was published in the Proceedings of the National Academy of the USA, and it has already been cited more than 200 times. In subsequent work, Kerry probed more deeply into the mechanistic causes of these effects by analyzing and quantifying the specific volatiles involved in the attraction of aphids, and by determining the specific nutritional factors that were affected by virus infection, and which reduced the quality of the infected plants as hosts. She then tracked this even further back by looking at effects of virus infection on the plant's defensive signaling pathways, such as the salicylic acid, jasmonic acid, and ethylene signaling systems. From this reductionist approach, she then switched back to a more global approach by asking and answering a series of broader questions, including whether viruses capable of infecting related plant species became adapted to the local hosts which were available (they did), whether there were virus-related effects on the fourth trophic level (aphid parasitoids; there were), whether there were virus-related effects on herbivores which were not vectors of the virus (there were), and the cumulative effects of infection by more than one pathogen.

Kerry's achievements are wholly consistent with the intent of the ISCE Early Career Award. Her research has been original and cutting edge and is already influential in shaping research directions in the chemical ecology of vector-borne pathogens.

At the 2017 meeting in Japan, Kerry Mauck presented a lecture entitled "How plant viruses use chemistry to manipulate hosts and vectors".

Call for Nominations for 2018

ISCE Silver Medal, Silverstein-Simeone Award, and Early Career Award

The ISCE Silver Medal Award recognizes career achievement by an outstanding scientist working in the field of Chemical Ecology.

The Silverstein-Simeone Award, established in 1995, to honor Milt Silverstein and John Simeone, is made on the basis of recent or current work of an outstanding nature at the “cutting edge” of Chemical Ecology. The recipient must deliver a plenary lecture at the annual ISCE meeting and publish a paper on the same topic in the *Journal of Chemical Ecology*. The Society gratefully acknowledges the very generous support of the Jean-Marie Delwart Foundation and Springer for the Silver Medal and Silverstein-Simeone Awards, respectively. Nominators should be ISCE members in good standing. Nominations will be reviewed by the President and Vice President for relevance to the appropriate award, before forwarding them to the full ISCE Executive Committee and Councilors. Should a nomination for one award be considered more relevant for the other award, the President will contact the nominator(s) regarding reconsideration. Current ISCE officers or councilors are not eligible for the awards because of a conflict of interest. Note that previous, unsuccessful nominations must be re-nominated to be considered for an award and the nomination packets for an individual resubmitted.

The Early Career Award in Chemical Ecology recognizes an emerging leader in chemical ecology and honor cutting-edge research that will influence the future direction of the field of Chemical Ecology. It will be awarded annually by the ISCE, and started in 2014. The award is limited to persons who graduated from their Ph.D. studies no longer than 8 years previously (deadline = end of nomination period). The recipient must deliver a plenary lecture at the annual ISCE meeting in the year of the application. The conference fee, reasonable economy travel, and hotel expenses of the recipient of the Award will be paid for by the society. The nominations will be reviewed by the ISCE Executive Committee and Councilors. Note that previous, unsuccessful nominations must be re-nominated to be considered for the award. An applicant can nominate him/herself or be nominated by an ISCE member.

Nominations for each of three awards require the following documents:

A nomination letter explaining why the nominee should be recognized for the award, stressing either their current cutting-edge research (for the Silverstein-Simeone Award and the Early-Career Award) or their career achievements (for the Silver Medal award). For the Early-Career Award, this letter should be supported by one to three letters from current ISCE members.

Curriculum vitae, including a list of publications pertinent to the research on which the award is based (for the Silverstein-Simeone Award), or a full list of publications (for the Silver Medal award). Supporting letters from other colleagues may be included. For the Early-Career Award, a Curriculum Vitae providing the current position, year of receipt of Ph.D. and a full list of publications is required. Reprints of the three most important papers in PDF must be included. The nominee must be a member of the ISCE for at least one year prior to nomination.

Please include all parts of the packet (including supporting letters) in one pdf file and submit in electronic format along with one paper copy to ISCE President:

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Deadline for the nominations is January 31, 2018.

It is also time to nominate a Vice-President and four new councilors.

The **Vice-President** is a voting member of the Executive Committee. The Vice-President becomes the Society President in the year following tenure as Vice-President, Past President in the next year, and remains as councilor for three years after that. **ISCE Councilors** are elected for a term of three years. It is important that councilors contribute to the running of the society and attend at least two ISCE Executive meetings during their three-year tenure. Principal responsibilities include participation in the selection of the Silver Medal and Silverstein-Simeone Awards, providing general guidance, advice and assistance to the Executive Committee, and judging student competitions at the annual meeting. It is recommended that a person nominated for the above positions should have a strong record of participation in the Society's activities and meetings.

Please send names, contact addresses, phone and fax numbers, and e-mail addresses of candidates along with a short description of why you think the candidate(s) would be suitable for office to Christer Löfstedt. Please ensure that the person agrees to being nominated before you nominate them.

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Deadline for the nominations is January 31, 2018.

International Society of Chemical Ecology

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Secretary	Irena Valterová	secretary (at) chemecol.org
Treasurer	Jerry Zhu	treasurer (at) chemecol.org

