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President's Message

Dear Members,

After each meeting of the International Society of Chemical Ecology, I come away rejuvenated by the breadth and depth of the scientific studies that are underway in our field. If one can judge the health of our science by the quality of our meetings, I think it would be fair to say that we are heading in the right direction. Most of us in the ISCE identify ourselves not only as chemical ecologists, but have strong ties to other fields of study such as chemistry, marine biology, animal behavior, neurophysiology, ecology, plant physiology, or entomology to name a few of the many. This diversity is certainly part of what makes our Society strong and our meetings so critical to the exchange of ideas. Because chemical ecology sits at the intersection of so many types of inquiry, and draws on a tremendous



diversity of scientific tools, I think that it is important that our society continually expand our intellectual diversity by inviting established scholars to our meetings who may not think of themselves as chemical ecologists, but who still have a lot to offer. Also, we need to make our meeting a great experience for students and postdoctoral scholars who may not identify themselves as chemical ecologists yet, but have the potential to contribute to our goals for many years to come. Those who have established themselves in our field should be ready to promote chemical ecology by vigorously supporting those who are still developing their careers. With development of communication technologies, we should be able to accelerate the exchange of ideas and expand its reach to all parts of the globe. Our website has tremendous potential to contribute in new ways. Finally we need to identify and reward a few of our most innovative and influential explorers with our society awards. Because the Society is financially on solid grounds we should be able to target these priorities and do so in a way that is sustainable.

Fortunately our Society is supported by volunteers who give their time to promoting our science and its impact. I think that it is safe to say that the spirit of volunteerism that characterizes the ISCE has allowed us to have more impact than most professional societies of our size. Our annual meetings are organized by individuals who put countless hours into the effort, and risk much to make them successful. Thank you Anna-Karin Borg-Karlson, Christer Löfstedt and all the individuals who helped make the meeting in Stockholm the highlight of the year. Also, thank you to Paulo Zarbin for identifying a beautiful venue for our next meeting in Brazil, and for beginning the hard work that makes for a rewarding meeting. Members, please mark your calendars now for 4 - 8 July 2016. Some of us will need visas to travel to Brazil, so please plan accordingly. Our meetings for the next several years have been set (Kyoto, Japan, in 2017; Budapest, Hungary, in 2018; and Georgia, USA, in 2019). Let me know if you have ideas for 2020.

Our officers and councilors are serving the ISCE very well. Thank you, Stephen Foster for all you did this past year as President, and Stefan Schulz for continuing your efforts as Past-President. Thanks to the prudent fiscal management directed by our Treasurer, Jeremy Allison, we have the financial resources to ensure that our Society can continue to enhance our programs. Our Secretary, Irena Valterova, has enhanced our record keeping, communications, and kept the rest of us on schedule. Our webmaster, Robert Mitchell has made our web page more effective and visually pleasing. Recently, Rob has taken some major steps that will make the jobs of treasurer and secretary easier. John Romeo's leadership of *Journal of Chemical Ecology* has made our journal the key outlet for research in our multidisciplinary field. Please send your best papers to our journal so that scientific impact of our field can continue to improve through our flagship journal. John will be stepping down as Editor-In-Chief in the near future. He and the editors that preceded him have built a legacy for the journal that has served chemical ecology very well. Ted Turlings, who has taken leadership in fund raising, successfully recruited a new sponsor for the Silver Medal Award, the Delwart Foundation. Thank you to this Foundation and thank you Ted. The ISCE appreciates those sponsors that have been steadfast in their support, including Springer (Silverstein-Simeone Award), and Trécé Incorporated (Student Travel). Also thank you to Syntech for recognizing a student or postdoctoral scholar presentation with the Golden Probe Award. It would be wonderful to identify a sponsor for our new Early Career Award. Anyone who has an idea here, please send it on to Ted Turlings or me.

Finally, I would like to offer my opinion on the future of our field. The diversity of our field is its greatest strength. We should embrace all of the dimensions of this diversity to harvest the full potential of chemical ecology. The intellectual diversity that was recognized by the founders of ISCE as a *raison d'être* for the new field is also a potential source for fragmentation

as Science gets more specialized. If you believe, as I do, that the ecological challenges that we face are great and the natural world and its resources are worth protecting, then we need to enhance the synergistic potential of our varied perspectives by contributing our best efforts to each other. We need to find more ways to share ideas and knowledge for the value of our field to increase.

See you all in Brazil,
Ken Haynes



Summary of the meeting by the hosts Anna-Karin Borg-Karlson and Christer Löfstedt

On behalf of the organizing committee we cordially thank all participants at the ISCE 2015 conference in Stockholm, for their enthusiasm and contributions making the conference successful. About 460 attendees from 39 countries registered for the meeting, twice as many as we expected! Together we fulfilled our goals to visualize the science of chemical ecology and implement the importance of research for solving present and future needs in agriculture, aquatic, forestry, and medicinal areas.

The program was tight, and one of the lecture rooms far too small. We are sorry that we were not able to solve this problem but the good spirit of the attendees made the situation bearable. However, there were no sessions with less than 50 people the required number of seats. We tried to offer as many as possible an opportunity to give oral presentations but we still had to reject a large number of requests for talks.

We really want to thank all devoted symposia organizers who selected excellent speakers, the medal awardees for presenting highlights from years of research, all speakers that accepted the challenge of presenting important research in a short time after long journeys, and the scientific committee for their great interest and important advice, this year's core of Chemical Ecologists! We also wish to thank the guides on the excursions, their engagement was highly appreciated.

As all of you who participated noticed David Gotthold at Kemistsamfundet was a key person for administration of the conference! He was the administrative conductor, taking care of



all kinds of upcoming problems. Last but not least, we are thankful to all sponsors, who recognized the importance of the annual meeting in Chemical Ecology and our aim to provide knowledge for building sustainable agriculture, fisheries, forestry, human and animal health and other societal values. The conference was held under the KTH motto “Science and Art” and the Lund University motto “*Ad utrumque*”, ‘prepared for both’. We believe that we all together managed to live up to this!

Finally, to all participants: thank you for giving us all a good memory of the largest ISCE 2015 meeting so far during an unusually sunny and warm week in Stockholm, Sweden.

Anna-Karin and Christer

Impressions of Stockholm 2015

Courtesy Till Tolasch and Jeremy Mc Neil. Additional photographs are available on the ISCE website (<http://chemecol.org/galleries.shtml>).





Business Meeting

ISCE Treasurer's Report (through 2nd June, 2015) by J. D. Allison

The recovery of ISCE accounts from the low point set in 2008, has plateaued at the current market value of \$285,505.92, an increase of \$4,969.10 from the year-end value in 2013 (\$280,059.12). It is worth noting that since 30-June 2014 the Society assets (\$310,658.31 on that date) have decreased in value \$25,152.39. Society assets are distributed in cash (< 1%), money accounts (16%) and priced investments (83%). 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. Over the past few two years membership fees average \$9,686.10, sponsors gifts \$9,500 and 4% of the society assets over this period equals ca. \$11,200. This means that total spending should not exceed \$30,386.10. In 2013 total expenses were \$27,436.55 and in 2014 total expenses were \$37,502.06. In 2015 total projected expenses are \$31,820. I strongly believe that current spending levels are not sustainable in the long-term.

The society received three corporate gifts in 2014. 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 and Silverstein-Simeone Award winners for 2014 for their travel expenses (Silverstein-Simeone winner Dr. Bill Hansson - \$5,586; Silver Medal winner Dr. Jocelyn Millar - \$1,562.29). We paid the 2014 webmaster (Dr. Rob Mitchell) \$1039.90. The ISCE contributed \$12,000 for Student Travel Awards at the 2014 ISCE annual meeting. Travel expenses for our Silver Medal Award winner and our Silverstein-Simeone Award winners for 2015 are pending.

We have 476 active members from 49 countries. There are 97 life members, 289 regular members, 89 student members, and 1 sponsor member. Our membership decreased by 48 members in 2015. Currently, student members make up 18.7 % of our membership.

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 alternative credit card payment system recently added is working well for most members (73 % of all renewals compared to 26 % by PayPal; ca. 1 % of our members pay by cheque).

Respectfully submitted,

Jeremy Allison, Treasurer

The treasurer report 2014 was approved by the present members of the ISCE business meeting.
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Decision on future meetings

Mark Hay (Georgia Institute of Technology, Atlanta) offered to host the 2019 ISCE meeting. It was decided to accept Atlanta (Georgia, USA) as the meeting site in 2019. The meeting is planned for early June 2019.

Changes in the Bylaws

Several changes and amendments were suggested. These will be posted on the ISCE website at least 14 days before the Annual meeting in Brazil. The changes will be presented for voting at the next business meeting.

Student Travel Award Winners 2015

Sandra Aragón, Georg-August University, Germany
Carla Arce, Federal University of Viçosa, Brazil
Lina Castano-Duque, Pennsylvania State University, United States
Anjel Helms, Pennsylvania State University, United States
Sara Hermann, Cornell University, United States
Gabriel Hughes, Purdue University, United States
Guillermo Jimenez-Alemán, Max Planck Institute for Chemical Ecology, Germany
Jennifer Klutsch, University of Alberta, Canada
Ricardo Machado, Max Planck Institute for Chemical Ecology, Germany
Daniel Mutyambai, International Centre of Insect Physiology and Ecology, Kenya
Birgit Oelschlaegel, TU Dresden, Germany
Bruno Perlatti, Federal University of São Carlos, Brazil
Hannier Pulido, Pennsylvania State University, United States
Guillermo Rehermann del Rio, Universidad de la República, Uruguay
Brett Younginger, Portland State University, United States
Lisa Ziesche, TU Braunschweig, Germany

Best Student Presentations of the ISCE 2015 Meeting

Best oral presentations

Anjel Helms, Pennsylvania State University, USA
Remington Poulin, Georgia Institute of Technology, USA
Thomas Butterfield, University of Sussex, UK

Best posters

Erika de Castro, University of Copenhagen, Denmark
Matthias Schott, Justus Liebig University, Germany
Chhana Ullah, Max Planck Institute for Chemical Ecology, Jena, Germany

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

Dan-Dan Zhang, Lund University, Sweden

ISCE Silver Medal Award

The ISCE Silver Medal for 2015 was awarded to **Ritsuo Nishida**, Professor Emeritus in the Discipline of Chemical Ecology, Kyoto University. He graduated in Agricultural Science at Kyoto University where he also obtained his PhD. As a postdoctoral research fellow, Ritsuo spent 3 years at the Department of Entomology, New York State Agricultural Experiment Station, Cornell

University working with William Bowers and Wendell Roelofs. In that time he displayed amazing skills in natural product chemistry and a keen sense in how to assess the meaning of plant volatiles. His ability to detect a common smell from an oriental fruit moth hair-pencil pheromone and from lemons allowed him to identify the compound from lemon peels and prove it to be identical to the hair-pencil pheromone. He carried these talents and skills to his position in Japan and soon established himself as a leading chemical ecologist in the world.

Throughout his long research career and as APACE President and ISCE Councilor, Ritsuo provided an outstanding service to chemical ecology discipline across both Societies (APACE and ISCE) and enormously contributed to the progress of chemical ecology research. His publications span an extraordinarily broad swath of insect chemical ecology, including chemicals mediating gustation, sexual activity and attraction, defensive sequestration, host-plant selection, induction of plant defense, alarm, digestion and detoxification. The chemistries of these systems are extremely diverse, as are the range of the insects and arthropods studied, including butterflies, moths, cockroaches, true fruit flies, mites, and sawflies. To tackle these systems successfully requires superb skills as a chemist, coupled with an ability to devise diagnostic bioassays and to explain the ecological and evolutionary significance of these interactions. The Silver Medal is an overdue recognition of Ritsuo's career-long contributions to our discipline.



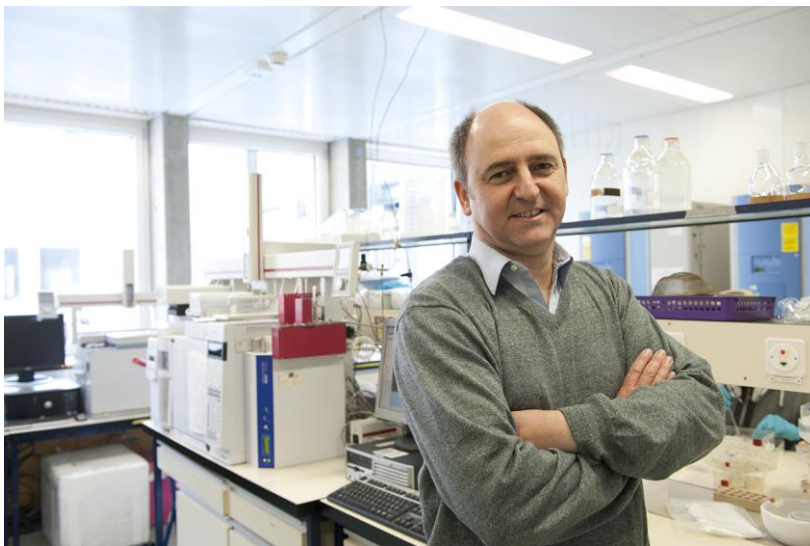
Ritsuo's outstanding point in his work is his love towards nature and beauty of tiny creatures. His works are not like punishing pest insects with chemical tools, but open our eyes to the beauty of nature in the sense of chemical ecology. Butterflies, fruit flies, and orchids, everything he works with is beautiful, and he always makes us aware of the chemical tricks behind those beautiful creatures with a spice of his humor.

Ritsuo Nishida presented this year's ISCE Silver Medal Award Lecture, sponsored by the Delwart Foundation.

ISCE Silverstein-Simeone Award

Ted Turlings, full professor and head of Laboratory of Fundamental and Applied Research in Chemical Ecology (FARCE) at the Institute of Biology, University of Neuchâtel, is also Director of the Centre of Competence in Chemical Ecology and Vice-director (finances) of the Institute of Biology, University Neuchatel. He graduated in biology at the University of Leiden, the Netherlands, and obtained his Ph.D. in Chemical Ecology/Entomology at the University of Florida (USA). Ted provided ground breaking discoveries regarding plant stress and higher trophic insect interactions together with two fathers of chemical ecology, Jim Tumlinson and Joe Lewis. Ted carried out some of the cutting edge research that changed the way in which the scientific world viewed plant-insect interactions. Since then, and under his own laboratory leadership, he has

pioneered the study of many other new paradigms relating to multi-trophic interactions in chemical ecology. There is no doubt that he is one of the world leading scientists in the field of tri-trophic interactions. Recently, his research group has been a leader in looking at below ground plant-insect interactions, as well as the reciprocal effects of above and below ground herbivores on plant defenses. The quality of his research is evident from the level of funding his program receives and his



most impressive publication record, as well as the numerous invitations to speak at international meetings and to serve on editorial boards of primary journals. Furthermore, Professor Turlings program has provided an excellent venue for graduate student training as his research combines molecular, chemical and behavioral approaches to address questions, and a number of his previous students are now, themselves, leaders in the field of chemical ecology.

Ted Turlings presented the Silverstein-Simeone lecture of the ISCE, sponsored by Springer, at the 2015 meeting in Stockholm.

ISCE Early Career Award

Matthias Erb is currently assistant professor at University of Bern, Switzerland. He graduated in Agricultural sciences at the Swiss Federal Institute of Technology (ETH) in Zürich. He obtained his Ph.D. in 2009 in the field of Chemical Ecology from University of Neuchâtel, Switzerland. He continued in Neuchâtel as a postdoc for two more years working with Prof. Ted Turlings on belowground plant-insect interactions. In 2011, Matthias moved to Max Planck Institute for Chemical Ecology, Jena, Germany, where he became an Independent Research Group Leader. In 2013, he was appointed to his current position in Bern.

Matthias has made an incredibly rapid start on what will surely be an outstanding career in research on the chemical ecology of plant-herbivore interactions. Just four years after finishing his Ph.D., he already has an astonishing list of scientific contributions to his credit. He has shed light on a dark area of plant-herbivore studies: what happens underground. He discovered quite unexpectedly that underground herbivores signal plants to increase their allocation of defensive chemicals above as well as below ground. Another focus of Matthias' interests is how plants respond to initial insect herbivory to activate defenses against further attack. He has helped discover a diverse assortment of damage signals and biochemical machinery that senses damage and triggers plants to increase



their deployment of defenses. He contributed to a very insightful review on the use of chemical elicitors to enhance the attraction of herbivore enemies to crop plants by increasing volatile emission.

Matthias already has a sterling publication record with numerous papers, most of which have appeared in top echelon plant and general journals, including *Proceedings of the National Academy of Sciences USA*, *Plant Physiology*, *Plant Journal*, *New Phytologist*, *Ecology Letters* and *Plant Cell and Environment*, as well as five papers in our flagship *Journal of Chemical Ecology*. Many of these have had considerable impact far beyond what is normally considered chemical ecology. Matthias has also received invitations to write articles in top review journals and join editorial boards, and has truly become an internationally recognized scientist at a tender young age.

ISCE Upcoming meeting 2016 in Iguazu Falls

Next ISCE Annual Meeting will be held in Iguazu Falls, Brazil, on July 4–8, 2016. It will be hosted by Professor Paulo H. G. Zarbin of the Universidade Federal do Paraná. The conference venue will be Recanto Cataratas Thermas Resort and Convention, Iguazu Falls. The website of the meeting will be open in October 2015.

Call for Nominations for 2016

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:

1. 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.
2. 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:

Prof. Kenneth F. Haynes
Department of Entomology
S-225 Ag. Science North
University of Kentucky
Lexington, KY 40546
USA
E-mail: president@chemecol.org
Phone: +1-859-257-1618

Deadline for the nominations is January 31, 2016

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

The position of Vice-President is important in that he/she will become the Society President in the year following tenure of the role of Vice-President.

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 either of 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 Kenneth Haynes. Please ensure that the person agrees to being nominated before you nominate them.

Prof. Kenneth F. Haynes
Department of Entomology
S-225 Ag. Science North
University of Kentucky
Lexington, KY 40546
USA
E-mail: president@chemecol.org
Phone: +1-859-257-1618

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