**ISCE NEWSLETTER** 

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## A Memory from the Last Annual Meeting (Stockholm 2015)



President Stephen Foster congratulates Silver Medal Award winner, Ritsuo Nishida. Ritsuo was recognized "for his wide-ranging investigations on interactions between plants and insects, particularly butterflies, for the identification of insect semiochemicals, and for his tireless efforts to promote chemical ecology". Ritsuo is a true pioneer in Chemical Ecology (photo by Dirk Louis Schorkopf).

The Society gratefully acknowledges the very generous support of the Jean-Marie Delwart Foundation for the Silver Medal.

## **32nd Annual Meeting of the ISCE**

Dear friends and colleagues,

We are finally approaching the start date of the 1st Joint Meeting of the International Society of Chemical Ecology (32nd Annual ISCE Meeting) and the Latin American Association of Chemical Ecologists (4th ALAEQ Meeting). We are expecting to have a very exciting meeting with more than 320 participants coming from 32 different countries. The scientific program is now complete and is going to be made available at the event's home page soon; please access www.chemecolbrazil2016.com for updated information about our meeting.

The program will include a total of 7 conferences, 11 symposia (including talks by 16 keynote speakers and an additional set of 120 oral presentations) and 2 poster sessions. But there is more... several social activities have been planned: a welcome cocktail, the Gala-dinner and a visit to the magnificent Iguassu Falls. A table presenting the general program of the event can be found below.

I hope to meet you all soon at Foz do Iguassu, one of the prettiest touristic spots of our planet, where we will share another great scientific event of our society.

See you soon!

Paulo Zarbin Chair

## **Program-at-a-Glance of the 32nd Annual Meeting of the ISCE**

1ST JOINT MEETING ISCE-ALAEQ - IGUASSU FALLS, BRAZIL - 04-08/07/2016 GENERAL PROGRAM										
	Mon, 04.Jul	Tue, 05.Jul	Wed, 06.Jul	Thu, 07.Jul	Fri, 08.Jul					
09:30-10:30		PL2: Kenji Mori	PL4: Martin Heil	PL6: John Romeo	PL7: Georg Petschenka					
10:30-12:15		S1 / S2 / S3	S5 / S6 / S7	S5 / S9	S8 / S10 / S11					
12:15-14:00		Lunch	Lunch	Lunch/Excursion	Lunch					
14:00-15:30	ISCE/ALAEQ Executive Meeting	S1 / S3 / S4	S6 / S7 / S8	Excursion	S8 / S10 / S11					
15:30-16:00		Coffe Break	Coffe Break	Excursion	Coffe Break					
16:00-16:45		S1 / S2 / S4	S6 / S8	Excursion	Business Meeting					
16:45-17:45		PL3: Astrid Groot	PL5: Martin Kaltenpoth	Excursion	Business Meeting					
17:45-19:30	Open Cerimony / PL1: Mark Hay	Poster Session 01	Poster Session 02		_					
20:30	Welcome Cocktail			Gala Dinner						
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	PLENARIES	SYMPOSIA	BREAK/SOCIAL	POSTER	TOURS	BUSINESS
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S1: The Chemistry of Chemical Ecology

S2: Chemical Ecology of Vector-Host Interaction

S3: Role of Chemical Ecology in Social Behavior, and Vice Versa

S4: International Collaborative Research on Chemical Ecology in Latin America

S5: Applied Uses of Pheromone: Past, Present and Future

S6: Plant Communication

S7: Chemical Interactions Mediated by Microorganisms

S8: General Chemical ecology

S9: Chemical Ecology of Insects Affecting People

S10: Chemical Ecology of Phytophagous Flies

S11: Mix Topics - Chemical Ecology

# A Note on Zika Virus

Many members may be worried about traveling to Brazil for the ISCE meeting for fear of Zika transmission. However, many factors minimize the chance of infection. The area of our meeting is in the south of Brazil which is considered a free zone of infestation. In addition, the meeting will be during winter time in Brazil, which drastically decreases the populations of mosquitoes.

ISCE Member Walter Leal has written a short editorial regarding the impact of Zika in the next few months in Brazil, which is linked below:

"Let's moderate our reaction to Zika virus", 10 June 2016 The Davis Enterprise, Davis, CA, USA Walter Leal Link: <u>http://www.davisenterprise.com/forum/opinion-columns/lets-moderate-our-reaction-to-zika-virus/</u>

### **Election Results**

#### **Our New Vice President**

# Our members elected Anne-Geneviève Bagnères to be the ISCE Vice President for 2016-2017.

Anne-Geneviève Bagnères is a senior research director at the CNRS. She earned a PhD in Neuroscience from the University of Paris 6. She did a post-doc with Ed Morgan at Keele University in the UK and a sabbatical with G.J. Blomquist in the USA. Of the hundred articles and book chapters she has published, more than half are dedicated to the topic of chemical ecology. Her scientific interests are chemical communication and the evolutionary ecology of insects. More specifically, she focuses on social insects. The research team she has led since 2001 is exploring the evolutionary biology of subterranean termites, as well as that of wasps and bees; invasive species are also a subject of study. Chemical ecology is a key component of these social systems. She



has advised and helped supervise around 30 PhD students and has taught courses on chemical communication. She is one of the few scientists in the world that helped identify and define the chemical signatures of insects. These signatures are composed of cuticular compounds (*i.e.* located on the exoskeleton), such as hydrocarbons and apolar long-chain surface compounds. She is the leader of a group of French researchers (GDR 3658—MediatEC) specialised in chemical ecology research. This group has brought together 52 labs and more than 250 scientists. She has been a member of ISCE since 1988 and served as an elected council member from 2003 to 2006.

#### **Our New Councilors 2016-2019**

# Our members elected four new councilors. We welcome these councilors to the society and look forward to their contributions!

**N. Kirk Hillier** is a professor of Biology at Acadia University in Nova Scotia, Canada. He completed a Ph.D. in biology at Memorial University of Newfoundland (Canada), where he studied the use of semiochemicals for pest monitoring of the lingonberry fruitworm, *Grapholita libertina*. Afterwards, he took a postdoctoral position in Neil Vickers lab at the University of Utah and examined the role of courtship odors and olfactory physiology in Heliothine moths. He joined Acadia in 2007, and also has been a Visiting Scientist at the University of Hawai'i (Honolulu, HI, USA); Theodor Boveri Institut (Würzburg, Germany), the Arizona Research Laboratories Division of Neurobiology (Tucson, AZ, USA), and has been an active collaborator with the Max Planck Institut für Chemische Ökologie (Jena, Germany).

The focus of Kirk's lab's research is to investigate the function of odors in insect neuroethology and the potential for applying this knowledge to insect pest management, olfactory neuroscience and the evolution of odor production and perception. His research program has expanded to include an examination of large scale hostacquisition strategies (field-based), and gene-expression, to include studies of the brain and behaviour from the molecular to ecosystem level. Ultimately this work is being integrated with industrial collaborations for development and commercialization of new pheromone-based control technologies. Kirk has garnered over \$10M in research support since joining Acadia and is presently PI on a \$7.1M collaborative grant for applied work on the use of pheromones for insect pest management. He has authored or coauthored 36 peer-reviewed publications. He has supervised 73 graduate, honours and summer students, and in 2012 was awarded



the C. Gordon Hewitt Medal from the Entomological Society of Canada (a National award for outstanding achievement in Canadian Entomology by a scientist under 40).

**Robert R. Junker** is Assistant Professor at the Department of Ecology and Evolution at the University of Salzburg, Austria. He received is PhD at the University of Würzburg, Germany and spent two years as Scientific Assistant at the Institute of Sensory Ecology in Düsseldorf, Germany. Robert started his scientific career with the exploration of the defensive functions of floral scents. His research program now expanded to the investigation of the structure and functional composition of diverse plant, animal and bacteria communities within ecosystems and along environmental gradients. He is particularly interested in how plant volatiles and other plant traits affect the behavior, distribution and diversity of insects and bacteria. Additionally, he is tracking the functional responses of plant species and whole communities to global change components such as climate warming and the spread of invasive species. In collaborative and interdisciplinary studies in



the lab and in the field (e.g. in the Austrian Alps and in Hawai'i), he is analyzing and manipulating the phenotype of plant species (e.g. scent emissions, coloration, morphology), examining interaction networks, revealing the composition and diversity of bacterial communities (e.g. next generation sequencing) and observing the behavior of animals as response to plant traits. In order to analyze the complex data gathered in these studies he applies and develops novel statistical tools to quantify the phylogenetic and functional diversity of communities and the niche size of species. Robert's research group published a number of research and review articles on the multifunctionality of floral scents in peer-reviewed international journals such as New Phytologist, The Plant Cell, and the Journal of Chemical Ecology. He chaired the first Gordon Research Seminar on Plant Volatiles in 2014 and is representative of the University of Salzburg for the Climate Change Centre AUSTRIA.

**Thomas Schmitt** is a Professor for Animal Ecology at the University of Würzburg, Germany since 2013. He obtained his PhD in Biology with Prof. Erhard Strohm at the University of Würzburg for his work on the evolution of sex pheromone communication in the European beewolf. Between 2004 and 2012 he worked as an Assistant Professor and group leader together with Prof. Klaus Peschke at the Department of Evolutionary Biology and Animal Ecology at the University of Freiburg, Germany. From there he moved for one year to the Faculty of Biology of the Technical University of Darmstadt, Germany as an Assistant



Professor and group leader working with Prof. Nico Blüthgen. His research focuses on evolutionary aspects of chemical communication in Hymenoptera. He is particularly interested in the diversification of cuticular hydrocarbon profiles in insects and the selection pressures shaping these profiles. Thomas has published more than 60 papers in peer reviewed journals like Nature, Science, Cell, PNAS, Proceedings Royal Society B, Evolution, Journal of Chemical Ecology etc. He is a member of the ISCE since 2002 and attends the annual ISCE meetings regularly.

Johannes Stökl is Assistant Professor at the Institute for Zoology at the University of Regensburg supported by a prestigious Heisenberg fellowship of the German Research Council. Johannes received his MSc in Vienna in 2002 and his PhD with Prof. Manfred Ayasse at the University of Ulm in 2007. He then spent two years as postdoc with Prof. Bill Hansson at the Max-Planck-Institute for Chemical Ecology in Jena before moving to Regensburg to the lab of Prof. Joachim Ruther. In Regensburg he established his own group to study hymenopteran parasitoids of *Drosophila*, focusing on wasps of the genera Leptopilina and Asobara, which he uses as model systems to investigate the evolution of chemical communication in insects. Johannes has published numerous papers in international Current Biology, Nature Communications, journals (e.g. Proceedings Royal Society B, and of course the Journal of Chemical Ecology) and has edited a special issue on the "Chemical Ecology of Parasitic Hymenoptera" in BioMed Research International.



## **Congratulations to all of you!**

## **President's Comments on the Health of the ISCE**

The health of a scientific society such as ours is measured in part by the enthusiasm of our members, which in turn influences the eagerness of a new generation of chemical ecologists to join the fold. Our Society does a great deal to encourage the vigor of our meetings and to recognize its citizens. We encourage graduate students and postdoctoral scholars to attend our meetings by putting more resources into student travel than we generate by our total membership dues and a sponsor. We also recognize the accomplishments of early career professionals, established researchers, and life-time achievers. We are contributing substantial funds to enhance our meetings by helping with travel of outside speakers. We are able to do more with low membership dues because of the health of ISCE endowment, and because we are run by a team of volunteer officers and councilors. No contribution to our Society is greater than that made by our annual meeting organizer. This individual takes on a great responsibility and risk when he or she agrees to this venture. This year the challenges have been great but the rewards will be greater still with a beautiful venue and an excellent program. Please join me in thanking Professor Paulo H. G. Zarbin for his extensive efforts in making this conference exceptional.

Healthy scientific societies have a good balance between the young and the old, and fresh ideas and experience. Our Society in particular benefits from the synergistic interaction between chemical and biological perspectives, which are both enhanced by molecular and ecological approaches. There will be several hundred of us participating in these exchanges in Brazil with the first joint meeting between el Asociación Latino Americana de Ecología Química and the International Society of Chemical Ecology.

In two areas I am concerned about the health of our Society. Typically we get an influx of new student members with each annual meeting, but our long-term retention of these individuals is not very good. A few of our student travel award winners go on to longer careers as part of ISCE, but we should do better. We need to ask ourselves and our student members what we can do to make ISCE a home for the long run. A second area of concern is participation in ISCE elections. In the last cycle less than 25% of our member voted. A relatively small society, such as ours, should do much better. Hopefully we can exchange ideas about ways to improve in our areas of strength and weakness so that we can continue "to promote the understanding of interactions between organisms and their environment that are mediated by naturally occurring chemicals."

Ken Haynes, President ISCE