APACE Newsletter

Asia-Pacific Association of Chemical Ecologists

February 8, 2017 **Issue 4**

Special topics of interest:

- Second International Chemical Ecology Conference (P 2)
- APACE Executive and New Councilors (P 3)
- APACE Lifetime Achievement Award (P 3)
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Message from the Present President (Looking Forward)

Dear APACE members,

Not too long ago, our 8th Conference of Asia-Pacific Association of Chemical Ecologists (APACE) was successfully completed in California, USA. Thanks to Dr. Jerry Zhu and his team workers, as well as the strong supports from semiochemical-based industries from all over the world, this meeting not only brought an overwhelming scientific program with a high quality and integrity that stimulates chemical ecological research, and also stimulated a strong growth of the APACE economy, which will benefit the society for a run. The 8th APACE conference, with a main theme "Chemical Ecology: Signaling in the 21st Century", included more than 10 symposia covering a broad aspect from basic chemical ecology research to semiochemical-based practical applications.

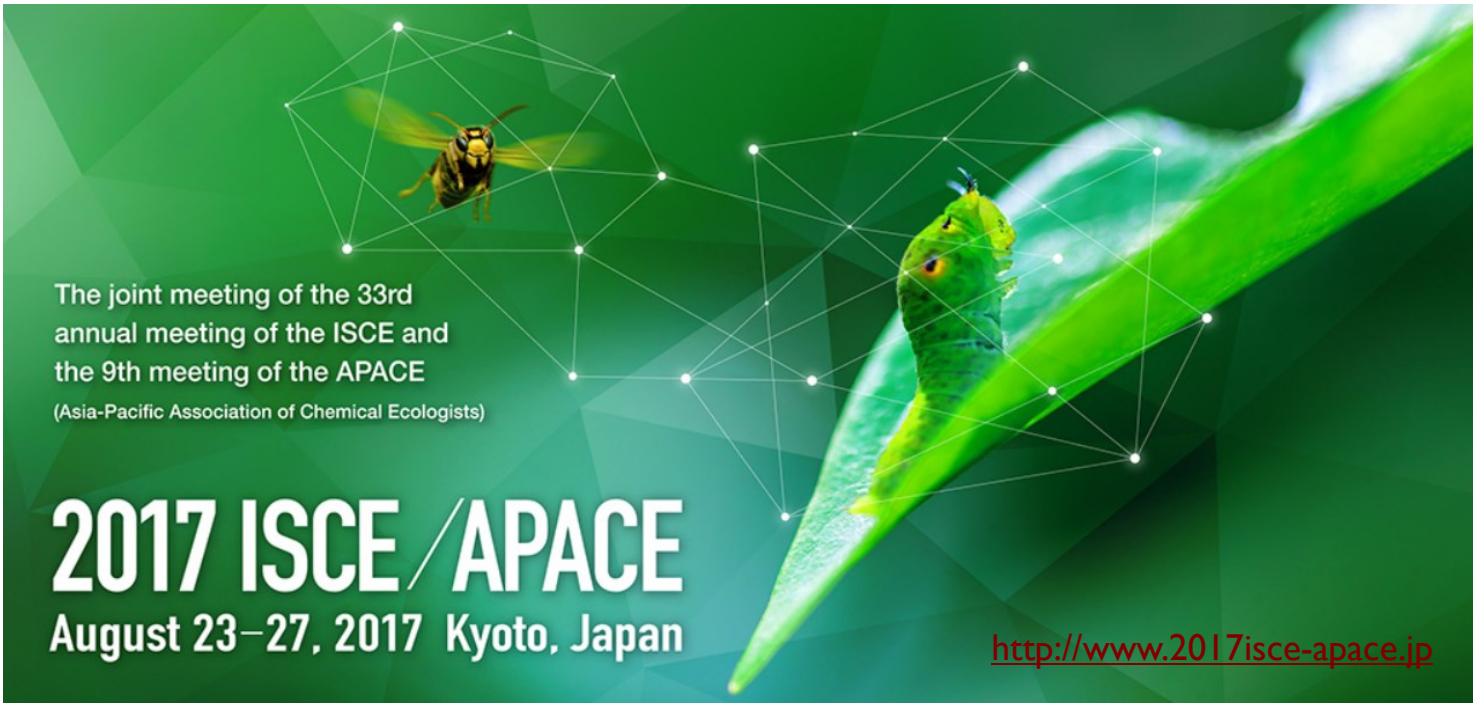
The first ever "Going from the Basic to the Marketplace for Semiochemical" organized by Drs. Tom Baker, Jocelyn Millar and Jerry Zhu had gathered experts from universities, industries and government research institutes all over the world to share their efforts and experience in use of semiochemicals for pest management. With the recognition and support of Chief Editor of Journal of Chemical Ecology (JCE), Dr. John Romeo, A special issue was published in July, 2017 based on the selected presentations. The title of this special issue is "Semiochemicals in Pest Management: Development, Regulation and Application" http://link.springer.com/journal/10886/42/7/page/1. During the conference, Emeritus Professor, Jiawei Du from China was presented The APACE Life-Time Achievement Award to recognize his long-term career achievement in chemical ecological research and his significant contribution to APACE society, as one of co-founders in 1997 .

During the year of 2016, we have accomplished several major goals including the establishment of the legal status of APACE as a corporation in the US, and the acceptance as a Non-Profit Organization from US Internal Revenue Service, which will make industry supporters easier to donate to APACE. The APACE website has been professionally redesigned and registered with the world's largest web hosting and cloud platform company that allows APACE members receive 7-24 uninterrupted service from every corner of the world. Our councilors represent various fields of chemical ecology, as well as from different Asia-Pacific regions. They play critical roles in an advisory capacity to the Executive Committee in decision making. This year 9 new councilors have been elected from many qualified candidates by our members.

The APACE has been grown substantially since 1997. With all great efforts of our previous presidents and their staffs, we are developing stronger and being more recognized internationally. We have built a strong relationship with our brother society (ISCE) in the last 5 years, and benefit each other in various areas. Last, I would encourage you to recommend your colleagues and students to become a new member of APACE, or renew your membership on our new website at http://www.newapace.com/members.html.

Thanks for your trust and support,

Jerry Zhu



Planned meeting topics

1. Identification and synthesis of semiochemicals
2. Plant mediators in biological interactions (including allelopathy)
3. Ecological omics: genome to field and evolution
4. Semiochemicals in social interaction
5. Pheromones
6. Plant-plant interactions
7. Insect-plant interactions
8. Tritrophic interactions
9. Forest chemical ecology
10. Aquatic/Marine chemical ecology
11. Animal chemical ecology
12. Utilization of semiochemicals in pest management
13. Chemical ecology of invasive species
14. Elucidating molecular targets of phytochemicals for crop protection

Contact

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APACE New Officers and Councilor

9-th APACE President 2015-2017 Junwei Jerry Zhu (USA)

- Conference: 9th APACE + 33rd ISCE (ICE 2017)
- Venue: Kyoto, Japan 2017
- Host: Naoki Mori and Junji Takabayashi (Japan)
- President: Junwei Jerry Zhu (USA)
- Vice President: Junji Takabayashi (Japan)
- Seretary: Guirong Wang (China)
- Treasurer: Qinghe Zhang (United States)

APACE Councilors 2015-2019

- Alvin Kah-Wei Hee (Malaysia)
- John Paul Cunningham (Australia)
- Chen-Zhu Wang (China)
- Joanne Yew (USA)
- Gen-Zhong Cui (China)
- Matthew Siderhurst (USA)
- Shuang-Lin Dong (China)
- Dangsheng Liang (USA)
- Shigeru Matsuyama (Japan)

APACE Life-time Achievement Award Winners

Prof. Keng-Hong Tan (Malaysia)

Prof. Ritsuo Nishida (Japan)

See details at www.newapace.com

Student Travel Awards This is the first time for APACE to establish this special funding for qualified students to apply. This fund is set to support student attendance to join the coming 2017 Joint Meeting of APACE and ISCE held in Kyoto, Japan (Aug. 23-27). Please follow the instructions on the APACE website. Cash award will be presented along with the award certificate.

Young Scientist Awards This award is aim to recognize the young talents of APACE chemical ecologists and support them to further advance their career. Young PhDs (<5 years after their graduation) are encouraged to apply. Please see APACE website for detailed guideline for application. Cash award and the award plaque will be presented.

See detailed instruction for application at www.newapace.com

A special Issue of Journal of Chemical Ecology titled "**Semiochemicals in Pest Management: Development, Regulation and Applications**" was published in 2016 successfully with great supports from JCE Chief Editor, John Romeo. This was originated from the first-ever applied chemical ecology symposium organized by Jerry Zhu, Tom Baker and Jocelyn Millar titled "***Going from the Basic to the Marketplace for Semiochemical***" at the 2015 APACE Conference held in California, USA.

Journal of Chemical Ecology
All Volumes & Issues

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Semiochemicals in Pest Management

Issue Editors: Tom Baker, Jocelyn Millar, Junwei Zhu
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In this issue (15 articles)

Employment Information

1. Agricultural Entomologist (Continuing Track Assistant Professor, University of Delaware, Georgetown, USA), http://www.entsoc.org/continuing-track-assistant-professor-agricultural-entomology

2 Livestock and Field Crops IPM Coordinator (Cornell University, Ithaca, NY, USA), https://academicjobsonline.org/ajo/jobs/7516

3. Field Crop Entomologist (Assistant/Associate Professor, Louisiana State University, Baton Rouge, USA), http://www.entsoc.org/assistantassociate-professor-field-crops-entomologist

4. Postdoctoral Researchers (Emory University, Atlanta,; UNC-Greensboro, USA); PhD Assistantship (Macquarie University, Sidney, Australia; Max Planck Institute for Chemical Ecology, Jena, Germany). https://www.chemecol.org/employment.shtml

Members' News

Dr. Joanne Yew was awarded a research grant from US Department of Defense (University Research Instrumentation Program). Dr. Yew also published several high-impact research articles in Plos Genetics, Neuron and Nature Communication.

- Chiang YN, Tan KJ, Chung H, Lavrynenko O, Shevchenko A, Yew JY. 2016. Steroid Hormone Signaling Is Essential for Pheromone Production and Oenocyte Survival. ***PLoS Genet***. 12(6):e1006126.
- Lin H, Cao D, Sethi S, Zeng Z, Chin JSR, Chakraborty TS, Shepherd AK, Nguyen CA, Yew JY, Su CY, Wang JW. 2016. Hormonal modulation of pheromone detection enhances male courtship success. ***Neuron***. 90(6):1272-1285.
- Ng WC, Chin JSR, Tan KJ, Yew JY. 2015. The fatty acid elongase Bond is essential for Drosophila sex pheromone synthesis and male fertility. ***Nat Commun***. 6:9263.

Dr. Shuang-Lin Dong received several research grants from Chinese National Science Foundation studying insect olfactory receptors. He also published several research papers in Scientific Reports, BMC Genomics, etc.

- Yi-Han Xia, Ya-Nan Zhang, Xiao-Qing Hou, Fei Li & Shuang-Lin Dong. 2015. Large number of putative chemoreception and pheromone biosynthesis genes revealed by analyzing transcriptome from ovipositor-pheromone glands of *Chilo suppressalis*. ***Scientific Reports***, 5:7888
- Nai-Yong Liu, Wei Xu, Alexie Papanicolaou, Shuang-Lin Dong, Alisha Anderson. 2014. Identification and characterization of three chemosensory receptor families in the cotton bollworm *Helicoverpa armigera*. ***BMC genomics***, 15:597

Dr. Matthew Siderhurst has received several research grants and published a paper in JCE.

- Siderhurst, M. S., S. J. Park, C. N. Buller, I. M. Jamie, N. C. Manoukis, E. B. Jang, P. W. Taylor. 2016. Raspberry ketone trifluoroacetate, a new attractant for the Queensland fruit fly, *Bactrocera tryoni* (Froggatt). ***Journal of Chemical Ecology***. 42 (2): 156-162.

Dr. Ritsuo Nishida received ISCE Silver Medal Award Winner;

Dr. Christer Lofstedt was elected as the President of ISCE;

Dr. Tom Baker delivered ESA's 2015 Founders' Memorial Award Lecture

Dr. Agenor Mafra-Neto was awarded a Bill & Melinda Gates Foundation's Grand Challenges Explorations grant for developing an inexpensive, long lasting, 'cologne' that would alter the scent of livestock to mimic humans.

Congratulation to **Dr. Thi Anh Tuyet Luong** for completing her PhD entitled: "The oviposition and movement behaviour of Bt-resistant and Bt-susceptible *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae) on Bt cotton and non-Bt cotton plants", supervised by Drs. P. Cunningham and M. Zalucki (Australia)

Members' News (continued)

Dr. Alvin Hee successfully organized the First Symposium of Tephritid Workers of Asia, Australia and Oceania (TAAO) that was held from August 15-18, 2016 in Malaysia. Participants from over 23 countries participated in that meeting that also included a symposium on fruit fly chemical ecology and semiochemicals.

Dr. Suk-Ling Wee received a prestigious Australian Government Endeavour Research Fellowship to conduct research on fruit flies of Australian. She spent a successful 4 1/2 months' stint in the laboratory of Prof Tony Clarke in Queensland University of Technology (QUT) in Brisbane, working on the behavioural ecology of Jarvis' fruit fly (*Bactrocera jarvisi*).

Drs. Alvin Hee and Suck-Ling Wee were invited as visiting chemical ecologists to the laboratory of Prof. Phil Taylor in Macquarie University, Sydney, Australia in December 2016, and discussed potential collaborative research to develop an effective sterile insect technique programme to curb the prevalence of fruit flies especially the notorious Queensland fruit fly ("Q-fly') in Australia.

Drs. Rensen Zeng, yonggen Lou and Shuangling Dong received several Chinese NSF grants to study novel technologies (molecular-level) in integrated pest management.

Dr. Jerry Zhu received multiple research grants from industries (Cargill, Nitto Denko, ISCA and Chemtica) to develop environmental-friendly biting fly control technologies. He was also elected as the President of Overseas Chinese Entomologist Association (OCEA, a branch of Entomological Society of America).

Future Meetings and Workshops

1. The 34th Annual Meeting of ISCE hosted by Dr. Miklós Tóth in Budapest, Hungary (July. 2018)

2 The 10th Conference of Asia-Pacific Chemical Ecologist Association will be held in Hangzhou, China. Conference organizers are Profs. Guirong Wang, Yonggeng Lou and Baoyu Han (Sept. 2019)

3. The 35th Annual Meeting of ISCE hosted by Dr. Mark Hay in Georgia Institute of Technology, USA (July. 2019)

4. The 3rd joint meeting of APACE/ISCE will be organized by Dr. Alvin Hee in Malaysia (Summer of 2021)

5. International Short Course in Insect Chemical Ecology (May 31 to June 14, 2017, Pennsylvania State University, USA, see details at http://ento.psu.edu/chemical-ecology/events/international-short-course-in-insect-chemical-ecology)

6. Workshop: New Theories and Novel Technique Development in Insect Science (July, 2017, Beijing, China)