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Local Organising Committee
Alex Il’ichev Chair
David Williams
German Spangenberg

Academic Organising Committee
Yongping Huang (APACE President and Co-Chair)
Eric Jang
Myron Zalucki
Gary Fitt
Ring Carde (ISCE President and Co-Chair)
Jocelyn Millar
May Berenbaum
Bill Hansson

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Alexandre Il’ichev (Australia)
APACE Vice-President
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APACE Secretary
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APACE Treasurer
Eric B. Jang (USA)
APACE Past President

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Qing-He Zhang (USA)
Suk-Ling Wee (Malaysia)
Jung Jin Kyo (Korea)
Yonggen Lou (China)
Yukio Ishikawa (Japan)
K.R.M. Bhanu (India)

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Ring Carde (USA)
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Monika Hilker (Germany)-(Past-President)
Tetsu Ando (Japan)
Jan Bergmann (Chile)
Ylva Hillbur (Sweden)
Baldwyn Torto (Kenya)
Jeffrey Aldrich (USA)-(Past-President)

Conference Office

WALDRONSMITH Management
119 Buckhurst Street
South Melbourne VIC 3205 Australia
T +61 3 9645 6311
F +61 3 9645 6322
E icec2013@wsm.com.au
www.icec2013.com.au
Welcome from the Chair

Our ICEC 2013 academic program showcases the diversity of Chemical Ecology research including plants, microorganisms, invertebrates, vertebrates, soil and aquatic organisms, as well as examples of chemical interactions between all trophic levels.

On behalf of the Organising Committee, it is our great pleasure to extend a warm welcome to all Chemical Ecologists participating in the International Chemical Ecology Conference (ICEC2013) on 19-23 August 2013 at the Melbourne Convention & Exhibition Centre (MCEC), Victoria, Australia and hosted by the Department of Environment and Primary Industries (DEPI) Victoria, Biosciences Research Division. This first joint meeting of the Asia-Pacific Association of Chemical Ecologists (7-th APACE biannual conference) and the International Society of Chemical Ecology (29-th ISCE annual conference), extended invitations to all Chemical Ecologists around the globe, and achieved a long-term aspiration of APACE and ISCE Founders and Executives.

Our ICEC 2013 academic program showcases the diversity of Chemical Ecology research including plants, microorganisms, invertebrates, vertebrates, soil and aquatic organisms, as well as examples of chemical interactions between all trophic levels. More than 460 abstract submissions for oral and poster presentation were received via the on-line ICEC 2013 system. The symposium organisers selected 240 submissions for oral presentations in 2 full day and 15 half-day symposiums, and the remaining submissions were accepted as poster presentations.

Our conference venue MCEC, the world’s first “Six Green Star” environmentally rated centre, is integrated with Hilton South Wharf Hotel nestled on the Yarra River close to many hotels, cafes, shops and the Art Centre. There is no shortage of things to do in Melbourne’s city centre. You can wander through art galleries, tour historic sites along the ‘Golden Mile Heritage Trail’, experience the living Australian Forest and indigenous display at the Melbourne Museum or maybe take a leisurely cruise along the Yarra River past Southgate, the Docklands and the MCEC. Melbourne is recognised as the “World’s Most Liveable City” and considered the Food and Shopping Capital of Australia.

Organisers of ICEC 2013 are ready to welcome more than 400 delegates from 42 countries attending our ICEC 2013 in Melbourne and believe that this first joint APACE and ISCE conference will be a great success and establish a tradition of such joint conferences every 4 years.

Alex IL’ICHEV
Chair of the ICEC2013 Organising Committee
Dear Chemical Ecologists,

Welcome to Melbourne at the first joint meeting of the Asia-Pacific Association of Chemical Ecologists (APACE) and the International Society of Chemical Ecology (ISCE). The meetings of each society have always offered unparalleled opportunities to interact with colleagues from around the globe and have provided forums to learn of the latest discoveries in chemical ecology. This first joint conference is ideal for discussing the direction of future work and fostering new collaborations. This gathering also will be especially valuable to graduate students and postdocs, the future of our two societies, because the size of our conference ensures that everyone can network.

We have a stimulating scientific program and Melbourne and its environs provides an exciting venue. For those of you who have not yet had an opportunity to visit and explore Australia, it is a most hospitable and rewarding destination. We hope our meeting in Melbourne will be an unforgettable experience for you.

Sincerely,

Ring Cardé
President ISCE

Dear APACE Friends and Members

It gives me great pleasure to welcome you to our 7th Asia-Pacific Association of Chemical Ecologists (APACE) Conference which is being held jointly with International Society of Chemical Ecology (ISCE) in Melbourne, Australia. This conference makes the dream of many members from both societies to have a joint meeting become true. This joint conference (ICEC 2013) is an ideal opportunity to network with our international colleagues, graduate and postgraduate students. Our local organisers, Dr. Alex Il’ichev and his colleagues will be doing their best to welcome all of you. We are glad that you were able to arrange your schedule to join us in Melbourne.

Thank you.

Yongping Huang
President APACE

The ICEC2013 Local Organising Committee would like to thank the following Conference Supporters:

Conference Host:
Department of Environment and Primary Industries

Conference Co-Hosts:

Supporters:

Symposia Sponsor:

Exhibitors:

Scientific and Business Cooperation with Springer
Conference Host City

There is no shortage of things to do in Melbourne’s city centre. You can wander through art galleries, tour historic sites along the ‘Golden Mile Heritage Trail’, experience the living Australian Forest and indigenous display at the Melbourne Museum or maybe take a leisurely cruise along the Yarra River past Southgate, the Docklands and the MCEC.

Visitors to Melbourne are delighted and amazed by the sheer breadth of unique sightseeing and entertainment experiences that are available within a short stroll, tram, train or taxi ride of the Melbourne Convention & Exhibition Centre (MCEC) and the city’s 23,000 hotel rooms. Whether you’re taking a short break between sessions or after a hard day’s work, or have arranged a few days of personal time, you are just minutes away from sandy beaches or any one of the beautiful parks and gardens sprinkled throughout the city; and just hours away from wine country, old gold mining towns, snowfields and the world-famous surf coast.

There is no shortage of things to do in Melbourne’s city centre. You can wander through art galleries, tour historic sites along the ‘Golden Mile Heritage Trail’, experience the living Australian Forest and indigenous display at the Melbourne Museum or maybe take a leisurely cruise along the Yarra River past Southgate, the Docklands and the MCEC.

Recognised as the ‘food capital’ of Australia, Melbourne is also renowned for its fabulous shopping. Melbourne attractions include designer stores in the city; the exclusive boutiques of Chapel Street; and bargain-hunting in the buzzing atmosphere of the Queen Victoria Market. And when wandering in the city, peer down almost any laneway and catch a glimpse of the ‘secret Melbourne’ – a place of edgy art, hidden bars and cutting-edge design.
# Conference Venue

## Melbourne Convention & Exhibition Centre

1 Convention Centre Place  
South Wharf VIC 3006  
Australia  
T +61 3 9235 8000  
www.mcec.com.au

### REGISTRATION DESK AND INFORMATION

The Registration and Information Desk is located at the Melbourne Convention & Exhibition Centre and will be operational during the following hours:

- **Monday 19 August 2013**  
  0800–1800 hrs  
  Main Foyer on Ground Floor outside plenary 3

- **Tuesday 20 August 2013**  
  0800–1730 hrs  
  Foyer on Level 2 outside current rooms

- **Wednesday 21 August 2013**  
  0800–1730 hrs  
  Foyer on Level 2 outside current rooms

- **Thursday 22 August 2013**  
  0800–1730 hrs  
  Foyer on Level 2 outside current rooms

### SPEAKER PREPARATION ROOM

The Speaker Preparation Room is in Meeting Room 214 of the Melbourne Convention & Exhibition Centre from Monday – Thursday.

The Speaker Preparation Room will be operational during the following hours:

- **Monday 19 August 2013**  
  0800–1630 hrs

- **Tuesday 20 August 2013**  
  0800–1730 hrs

- **Wednesday 21 August 2013**  
  0800–1730 hrs

- **Thursday 22 August 2013**  
  0800–1630 hrs

### ACCOMMODATION

- **Hilton South Wharf**  
  2 Convention Centre Place  
  South Wharf VIC 3006

- **Crown Metropol**  
  8 Whiteman Street  
  Southbank VIC 3006

- **Crown Promenade**  
  8 Whiteman Street  
  Southbank VIC 3006

- **Crowne Plaza**  
  1 – 5 Spencer Street  
  Melbourne VIC 3000

- **Pensione Hotel Melbourne**  
  16 Spencer Street  
  Melbourne VIC 3000

- **Melbourne Short Stay Apartments**  
  187 City Road  
  Southbank VIC 3006

- **Travelodge Southbank**  
  9 Riverside Quay  
  Southbank VIC 3006
Social Program

WELCOME RECEPTION
Monday 19 August 2013
1730-1930 hrs
Melbourne Convention & Exhibition Centre
Main Foyer 3
Begin the Conference with a wonderful evening of networking amongst colleagues. Renew old friendships and make new acquaintances as we welcome you to Melbourne.
Cost: Inclusive for all registration types
Dress: Business Casual

GALA DINNER
Wednesday 21 August 2013
1930-2330 hrs
Showtime
61 South Wharf Promenade
South Wharf
Enjoy a fabulous Gala Dinner at Melbourne’s perfect riverside venue. The unique location of Showtime Events Centre affords its guests stunning views of the Yarra River, the associated docks and the City Skyline.
Cost: Tickets to the Gala Dinner were to be pre-purchased throughout the registration process. There will be no ticket sales onsite.
Dress: After Five

TOURS
Friday 23 August 2013
Field Day Tour to Yarra Valley Agriculture Area
0900-1600 hrs
Melbourne Convention & Exhibition Centre, pick up at Convention Centre Place, outside the MCEC main entrance
This full day tour will depart and return to the Melbourne Convention & Exhibition Centre. You’ll travel to the Healesville Sanctuary which is a zoo specialising in native Australian animals. It is located at Healesville in Yarra Valley Agricultural area of rural Victoria, Australia, and has a history of breeding native animals.
You’ll attend the guided tour at zoo and after tour will have the time to get yourself some tasty lunch at one of the three cafes available at the zoo.
Cost: The cost of the transport for this tour is complimentary for delegates that pre booked the tour as part of the registration process. Participants will need to pay for their own entrance tickets (at discounted for ICEC2013 rate) and cover their own cost for lunch and souvenirs.
Dress: Smart Casual with warm jacket and good walking shoes. A light rain coat or umbrella would be advisable.
Note: Tour bookings cannot be made once you are onsite at the Conference. All confirmation of tour attendance needed to be done prior to the Conference.

Friday 23 August 2013
AgriBiosciences Centre at DEPI Bundoora
0900-1230 hrs
Melbourne Convention & Exhibition Centre, pick up at Convention Centre Place, outside the MCEC main entrance
This half day tour will depart and return to the Melbourne Convention & Exhibition Centre. You’ll travel to the AgriBiosciences Centre.
AgriBiosciences centre is a $288 million world-class state-of-art facility for agriculture biosciences research and development. A joint initiative of the Victorian Government, through the Department of Environment and Primary Industries (DEPI) and La Trobe University, brings together world-leading scientists in plant and animal biosciences, biosecurity, bioprotection and soil sciences enabling the following technology platforms: genomics, transcriptomics, proteomics, metabolomics, phenomics, biocontainment, bioinformatics and advance scientific computing.
Cost: The tour is complimentary for delegates that pre booked the tour as part of the registration process.
Dress: Smart Casual
Note: Tour bookings cannot be made once you are onsite at the Conference. All confirmation of tour attendance needed to be done prior to the Conference.
General Information

Banking Facilities – ATMs
ATMs are located adjacent to the Convention Centre entry and on the Exhibition Centre concourse.

Business Centre
A business centre with reception, secretarial support and business equipment for sale and photocopying services is located off the Clarendon Street entrance to the Exhibition Centre. P +61 3 9235 8448

Car Parking
There are three car parks available at the Melbourne Convention & Exhibition Centre, all open 24 hours, seven days a week.
• Melbourne Convention Centre
  Entrance off Siddeley Street. Fees start at $8 per hour. Early-bird and weekend rates are available.
• Melbourne Exhibition Centre.
  Entrance off Normanby Road. Fees start at $10 per hour up to a maximum of $40 per day. Early-bird, evening and weekend rates are available.
• South Wharf Retail Car Park
  Entrance off Normanby Road. Fees start at $6 per hour. Evening rates are available.

Childcare
Please note no official arrangements have been made for childcare during the Conference. Please check with your hotel as they should be able to assist you with child minding services.

Climate and Dress Code
August is the end of winter and beginning of spring in Melbourne, with daily temperatures ranging from 6-15 degrees Celsius.
Conference: Business Casual
Welcome Reception: Business Casual
Gala Dinner: After Five

Cloak Room/Luggage Storage
Located off the main Convention Centre foyer, providing storage for delegate’s belongings.

Daily Catering
Monday catering will be served in the Main Foyer outside Plenary 3. Tuesday to Thursday catering will be in the foyer space outside of Meeting Rooms 217, 218, 219 and 220.

Disclaimer
ICEC2013 including the Conference Organisers will not accept liability for the damages of any nature sustained by participants or their accompanying persons for loss or damage to their personal property as a result of ICEC 2013 and exhibition or related events.

Emergency Response
In the event of an evacuation, Melbourne Convention & Exhibition Centre staff will act as fire wardens to assist in the movement of patrons to the designated assembly point. The closest evacuation meeting point is located outside the World Trade Centre accessed via the pedestrian bridge outside the Convention Centre exit next to Polly Woodside.

Insurance
Delegates are strongly advised to secure appropriate travel and health insurance. Delegate registration fees do not provide any such insurance coverage. The Organising Committee and the Conference Office accept no responsibility for any loss in this regard.

Internet
The Melbourne Convention & Exhibition Centre offers free Wi-Fi throughout the Centre.

Language
The official language of the Conference is English.

Name Badges and Security
All delegates will receive a name badge upon registration. This badge is the official pass and must be worn to obtain entry to all Conference sessions, including social events and associated activities.

Medical Services
The Melbourne Convention & Exhibition Centre’s main first aid room is located off the Convention Centre foyer. A smaller first aid room is located off the Exhibition Centre foyer. Please phone +61 3 9235 8333 for any enquiries.

Smoking Policy
Melbourne Convention & Exhibition Centre is a non smoking venue.

Special Requirements
Every effort has been made to cater for all delegates who have specified special dietary requests at the time of registering. Please make yourself known to a venue staff member at catering times and functions in order to obtain your meal. If you did not provide this information at the time of registering, please advise the staff at the Registration and Information Desk immediately. No guarantee can be made to cater for delegates that have not advised dietary requirements in advance.

Time Zone
Melbourne’s time zone is UTC/GMT +10 hours.

Useful Telephone Numbers
Melbourne Convention & Exhibition Centre +61 3 9235 8000

Accommodation
Crown Metropol: +61 3 9292 6211
Hilton South Wharf: +61 3 9027 2000
Crowne Promenade: +61 3 9292 6688
Crowne Plaza: +61 3 9648 2777
Travelodge Southbank: +61 3 8696 9600
Melbourne Short Stay Apartments: +61 3 8256 7500
Pensione Hotel Melbourne: +61 3 9621 3333

Transport
Taxis: 133 300

Car Hire
Avis: 13 63 33
Budget: 13 27 27
Europcar: 13 13 90
Hertz: 13 30 39
Thrift: 1300 367 227

Airlines
Qantas: 13 13 13
Jetstar: 13 15 38
Virgin Blue: 13 67 89
Tiger Airways: +61 3 9335 3033
The ISCE Silver Medal is awarded annually to recognise career achievement of scientists who have made outstanding contributions to the discipline of chemical ecology. ISCE Silver Medal Award 2013 Lecture supported by Suterra Co. will be presented by Professor Walter S. Leal (USA) with the title: “Chemical Ecology with a cast of Thousands and Recognition of One”.

The APACE Life-Time Achievement Award recognises long-term career achievement and significant contribution to Chemical Ecology research in Asia-Pacific Region. APACE Life-Time Achievement Award 2013 will be presented to APACE co-founders Professor Kyung Saeng Boo (Korea) and Professor Kenji Mori (Japan). APACE Life-Time Achievement Award 2013 Lecture supported by Sumitomo Co. will be presented by Professor Kenji Mori (Japan) with the title: “Semiochemicals—Their Stereochemical Diversity as Revealed by Organic Synthesis”.

The ISCE Silverstein-Simeone lecture award is made in honour of the enormous contribution made to the field of Chemical Ecology by Drs. Robert M. (Milt) Silverstein and John B. Simeone, the founding editors of the Journal of Chemical Ecology. ISCE Silverstein-Simeone Award 2013 Lecture supported by Springer Publishing Co. will be presented by Professor Consuelo De Moraes (USA) with the title: “Chemically mediated Interactions Among Plants, Insects, and Pathogens”.

**Speakers**

**AWARD SPEAKERS**

- **Professor Consuelo De Moraes**
  United States of America

- **Professor Walter S. Leal**
  United States of America

- **Professor Kenji Mori**
  Japan

**PLENARY SPEAKERS**

- **Professor Ian Baldwin**
  Germany

- **Professor William Foley**
  Australia

- **Professor Roberto Kolter**
  United States of America

- **Professor Jeremy N. McNeil**
  Canada

- **Professor Rod Peakall**
  Australia

- **Professor Monika Hilker**
  Germany
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<tr>
<th>Time</th>
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<tr>
<td>08.00-18.00</td>
<td>Registration</td>
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<td>Conference Opening</td>
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<td>10.30-11.00</td>
<td>Morning Tea</td>
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<td>11.00-11.40</td>
<td>ISCE Silver Medal Award 2013</td>
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<td>Chemical Ecology with a Cast of Thousands and Recognition of One</td>
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<td>Professor Walter Leal</td>
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<td>11.40-12.20</td>
<td>APACE Life-time Recognition Sumitomo Award</td>
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<td>Semiochemicals - Their Stereochemical Diversity as Revealed by Organic Synthesis</td>
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<td>Professor Kenji Mori</td>
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<td>12.20-13.00</td>
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<td>Professor Consuelo De Moraes</td>
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<td>13.00-14.00</td>
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<td>14.00-14.30</td>
<td>Plenary 1</td>
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<td>Koalas and Eucalyptus: The Chemical Ecology of a Specialised Mammal Plant Interaction</td>
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<td>Professor William Foley</td>
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<td>14.30-15.00</td>
<td>Plenary 2</td>
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<td>How a Native Plant Solves Life’s Challenges with a Sophisticated Use of Chemistry</td>
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<td>Professor Ian Baldwin</td>
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<td>15.00-15.30</td>
<td>Plenary 3</td>
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<td>Start of Insect Life: Insect Eggs and Their Interactions with Plants</td>
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<td>Professor Monika Hilker</td>
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<td>15.30-16.00</td>
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<td>16.00-16.30</td>
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<td>The Chemistry and Evolution of Pollination by Sexual Deception in Australian Orchids</td>
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<td>Professor Rod Peakall</td>
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<td>16.30-17.00</td>
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<td>The Evolution of Chemical Ecology and Chemical Ecologists Over the Decades</td>
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<td>Professor Jeremy McNeil</td>
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<td>17.00-17.30</td>
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<td>The Chemical Ecology of Bacterial Development</td>
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<td>Professor Roberto Kolter</td>
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<tr>
<td>17.30-19.30</td>
<td>Welcome Reception</td>
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## Tuesday 20 August 2013

### 08.00-17.30  Registration

### 08.00-17.30  Exhibition

### 09.00-10.30  Symposium 1  
**Topic 7:** The Chemical Stimulus – Its Analysis and Synthesis
- Room: 218
- Session Chairs: Stefan Schulz (Technische Universität Braunschweig, Germany) and Ales Svatos (Institute for Chemical Ecology, Germany)

### 09.00-10.30  Symposium 2  
**Topic 15:** Insect (Drosophila) Neuroethology
- Room: 219
- Session Chairs: Coral Warr (Monash University, Australia) and Bill Hansson (Max Planck Institute for Chemical Ecology, Germany)

### 09.00-10.30  Symposium 3  
**Topic 8:** Chemical Ecology of Pollination
- Room: 220
- Session Chairs: Rod Peakall (Australian National University, Australia), Bjorn Bohman (Australian National University, Australia) and Anna–Karlin Borg–Karlsson (Royal Institute of Technology, Sweden)

### 09.00-10.30  Symposium 4  
**Topic 15:** Applied Chemical Ecology: newest research and development
- Room: 217
- Session Chairs: Alex Il’ichev (Department of Environment and Primary Industries, Australia) and Jerry Zhu (USDA, USA)

### 09.00–09.15  Keynote:  
**Synthetic Approach and Structural Identification of Sigillin, a Complex Polychlorinated Natural Product of Ecological Importance from the Snow Flea**  
Stefan Schulz

### 09.15–09.30  Talk:  
**Improving the Efficacy and Economics of Aerosol Emitters for Control of Codling Moth (CM), Cydia Pomonella L.**  
Larry Gut

### 09.30–09.45  Talk:  
**Identification, Total Synthesis and Biosynthesis of Stylopsal, the Female Sex Pheromone of Stylops Muelleri**  
Ulrich Jahn

### 10.00–10.15  Talk:  
**Enantioselective Syntheses of Insect Pheromones with Methyl Branched Skeletons Verified by Chiral HPLC Analysis**  
Tetsu Ando

### 10.15–10.30  Talk:  
**Evolution of Syntheses of the Irregular Terpenoid Pheromones of Mealybugs**  
Jocelyn Millar

### 10.30–11.00  Morning Tea  
Room: Level 2 Foyer
### Tuesday 20 August 2013

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<td>11.00-12.45</td>
<td>11.00-11.15 Laser Assisted Mass Spectrometric Imaging of Plants, Insects, and Bacteria Semiochemicals</td>
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<td>Session Chairs</td>
<td>Stefan Schulz (Technische Universität Braunschweig, Germany) and Alex Svatos (Institute for Chemical Ecology, Germany)</td>
<td>Coral Warr (Monash University, Australia) and Bill Hansson (Max Planck Institute for Chemical Ecology, Germany)</td>
<td>Rod Peacock (Australian National University, Australia) and Bjorn Bohman (Australian National University, Australia) and Anna-Karin Börg-Karison (Royal Institute of Technology, Sweden)</td>
<td>Alex Il’ichev (Department of Environment and Primary Industries, Australia) and Jerry Zhu (USDA, USA)</td>
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<td>11.00-11.15</td>
<td>Sugar Aversion: A Newly-Acquired Adaptive Change in Gustatory Receptor Neurons in Multiple Field Populations of the German Cockroach</td>
<td>11.00-11.15 Sugar Aversion: A Newly-Acquired Adaptive Change in Gustatory Receptor Neurons in Multiple Field Populations of the German Cockroach</td>
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<td>Lecture</td>
<td>Ales Schal</td>
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<td>Rod Peacock</td>
<td>Alex Il’ichev</td>
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<td>11.15-11.30</td>
<td>The Use of GC / FTIR as an Important Tool to Identify Semiochemicals</td>
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<td>Coral Warr (Monash University, Australia) and Bill Hansson (Max Planck Institute for Chemical Ecology, Germany)</td>
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<td>11.30-11.45</td>
<td>Olfactory Receptor Neurons for Pheromone and Plant Volatile Compounds in the Clover Root Weevil, Sitona Lepidus</td>
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<td>11.45-12.00</td>
<td>Identification of the Sex Pheromone of the Chilean Fruit Leaftopper Prosula Auraria</td>
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<td>12.00-12.15</td>
<td>Discovery of Smoke-Derived Butenrolides and Cyanoxydrins that Promote Seed Germination</td>
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<td>12.00-12.15</td>
<td>Secrets In the Dark: Sexual Communication Variation in the Two Spodoptera frugiperda Strains</td>
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<td>12.15-12.30</td>
<td>Metabolomics Reveals Herbivore and Pathogen-Induced Metabolites of Resistance and Susceptibility in Maize</td>
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<td>12.15-12.30</td>
<td>Manipulating Odor Coding and Behavior in Drosophila melanogaster</td>
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<td>12.30-12.45</td>
<td>Cannibalism and NMR Metabolomics in Helicoverpa armigera</td>
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<td>12.30-12.45</td>
<td>The Sharing of Pollinators by Sympatric Genera of Sexually Deceptive Orchids - The Importance of Chemistry for Pollinator Behaviour</td>
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<td>Christer Löfstead (Lund University, Sweden) and Astrid Groot (Institute for Chemical Ecology, Germany)</td>
<td>Judith Reinhard (University of Queensland, Australia) and Charles Claudianos (University of Queensland, Australia)</td>
<td>Ring Carrd (University of California, USA), Jocelyn Millar (University of California, USA) and Yongping Huang (Chinese Academy of Science, China)</td>
<td>Alex Pitcher (Department of Environment and Primary Industries, Australia) and Jerry Zhu (USDA, USA)</td>
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<tr>
<td>13.45-14.00</td>
<td>Patterns Emerging in the Genetic Basis of Moth Sexual Communication</td>
<td>Keynote: Honeybee Olfactory Plasticity: Scent Memories Regulate Olfactory Receptor Expression and Modify Odour Preferences</td>
<td>Determination of the Absolute Stereochirality of Methyl-Branched Hydrocarbons Isolated From Several Orders of Insects</td>
<td>Bacterial infection of Trees Induces Release of a Volatile That ‘Deceptively’ Attracts Insect Vectors; Can We Manipulate the Environment to Prevent Vectors from Homing in on Infected Plants?</td>
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<td>Sex Pheromone Evolution In New Zealand Leafroller Moths: A Story of Differential Gene-Regulation</td>
<td>Determination of the Absolute Stereochirality of Methyl-Branched Hydrocarbons Isolated From Several Orders of Insects</td>
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<td>Tyler Buchinger</td>
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<td>The Evolution of Multi-Component Sex Pheromones in Moths</td>
<td>Micro-RNA Regulation of Olfactory Learning and Memory in Honeybees</td>
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<td>14.30-14.45</td>
<td>Evolution of Genetic Variance in Cuticular Hydrocarbons Under Selection</td>
<td>Phenotypic Plasticity in Olfactory Related Gene Expression of Leaf cutting Ants (Atta Volkneri)</td>
<td>Sticky Hydrocarbon Footprints and Striky Defensive Allophones Function as Aggregation Pheromones in Hoplodermia Convergens</td>
<td>Attraction of Chrysopaeta Sinica, a Natural Enemy by Synthetic Attractants for Controlling Colorado Potato Beetle</td>
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<td>Sarah Koch</td>
<td>Christopher Wheeler</td>
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<td>Shuang-Lin Dong</td>
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<td>15.00-15.15</td>
<td>Genetic Analysis of Male Preference for Female Sex Pheromones in Ostrinia Nubialis</td>
<td>Deciphering the Molecular Mechanisms of Chemosensiation in a Crop Pest Moth, the Noctuid Spodoptera Litoralis</td>
<td>Host Plant Volatiles and Preference in a Specialist and Generalist Parasitoid: To Learn or Not to Learn?</td>
<td>The Dependence of Sex Pheromone Production on Larval- And Adult-Acquired Metabolites in Virgin and Mated Female Helicoverpa armigera</td>
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<td>Fotini Koutroumpa</td>
<td>Emmanuelle Jacquin-Joly</td>
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<td>Bernd Steinwender</td>
<td>Wei Xu</td>
<td>Malini Periasamy</td>
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<td>15.30-16.00</td>
<td>Afternoon Tea</td>
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Tuesday 20 August 2013
### Symposium 13
**Topic 6: Evolution of Chemical Communication in the Era of Genomics and Transcriptomics**

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<td>218</td>
<td>Christ Lofstedt (Lund University, Sweden) and Astrid Groot (Institute for Chemical Ecology, Germany)</td>
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16.00-16.15 **Identification and Characterisation of Pheromone Receptors from the Light Brown Apple Moth (Epiphyas Postvittana)**
Jacob Corcoran

Molecular Characterisation, Expression Pattern, and Ligand-Binding Properties of Three Odorant Binding Protein Genes from *Dandrolimus Tabulaformis*
Zhen Zhang

16.15-16.30 **Differential Expression and Functional Characterisation of Candidate Pheromone Receptors in the Hessian Fly, Mayetiola destructor (Diptera, Cecidomyiidae)**
Martin Andersson

Identification and Characterisation of Pheromone Receptors and Binding Proteins in the Diamondback Moth, *Plutella Xyllostella*
Guirong Wang

16.30-16.45 **Caste and Social Context Dependent Pheromone-Related Gene Expression in the Mandibular Glands of the Honeybee**
Abraham Hefetz

Ligand-Binding of Three Pheromone-Binding Proteins in the Bact Armyworm, *Spodoptera Exigua*
Naoyong Liu

16.45-17.00 **Investigating the Structural Basis for Odorant Recognition in an Odorant Receptor from the Malarial Vector, Anopheles Gambiae**
Charles Luziette

Biosynthetic Pathways for 15-Dianal Sex Pheromone in *Dolbina Tancrei*
Takuya Uehara

17.00-17.15 **A Conserved Aspartic Acid Regulates Activation of the Insect Odorant Co-Receptor (ORCO)**
Brijesh Kumar

Allelic Specific Expression in Relation to Bombyx mori Resistance to Bt toxin Cry 1Ab
Yazhou Chen

17.15-17.30 **Insect Odorant Receptor Structure and Function With Regard to their Application in Olfactory Biosensors**
Richard Newcomb

Natural Products as Alternative to Pyrethroids for Malaria Vector Control
Emilie Delletre

17.30-19.30 **ISCE Executive Committee Meeting**
APACE Executive Committee Meeting
### Wednesday 21 August 2013

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<td>08.00-17.30</td>
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<td>08.00-17.30</td>
<td>Exhibition</td>
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<td>09.00-10.30</td>
<td>Symposium 17</td>
<td>Topic 3: Rhizosphere Ecology</td>
<td>William Foley (Australian National University, Australia) and Ben Moore (University of Western Sydney, Australia)</td>
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<td>Daniel Balhorn (Portland State University, USA) and Ros Gleadow (Monash University, Australia)</td>
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<tr>
<td>09.00-10.30</td>
<td>Symposium 18</td>
<td>(Combined Symposium)</td>
<td>Keynote: Effects of Microbial Plant Symbionts on Insect Herbivores Daniel Balhorn</td>
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<td>Topic 1: Interactions between Plants and Animals in the Australian Biota and Environment</td>
<td>Keynote: Dynamic Nature of the Chemical Ecology of Algal-Bacterial Interactions Roberto Kolter</td>
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<td>Topic 4: Plasticity of Constitutive Plant Defences: Microbes to Climate</td>
<td>Effects of Bacteria on Mosquito Behavior Coby Schal</td>
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<td>09.00-09.15</td>
<td>Keynote</td>
<td>Plant Root Exudates and Their Role as Plant Proctectants in the Rhizosphere</td>
<td>Leslie Ann Weston</td>
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<td>09.30-09.45</td>
<td>Organic Anions in the Rhizosphere: Transport Mechanisms and Functions</td>
<td>Nanny Delhaize</td>
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<td>09.45-10.00</td>
<td>Detection and Transformation of Secondary Plant Products in Soils Using LC and GC/MS - A Metabolomic Perspective</td>
<td>Inge Sindborg Pomsgaard</td>
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<td>10.00-10.15</td>
<td>Role of Flavonoids in Symbiotic and Pathogenic Root-Microbe Interactions</td>
<td>Samira Hassan</td>
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<td>10.15-10.30</td>
<td>The Morinilactone-Mediated Allelopathic Interaction Between Rice and Bamyard Grass</td>
<td>Hisashi Kato-Noguchi</td>
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<td>11.00-11.15</td>
<td>Influence of Root Chemical Ecological Characteristics on Plant Resistance to Heavy Metal Stress</td>
<td>Lei Nie</td>
<td>Novel Defense Mechanisms of Endophytic Fungi via the Production of Volatile Biocidal Metabolites Ross Mann</td>
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<td>11.15-11.30</td>
<td>Microbial Diversity and Exploration of the Rhizosphere - A New Frontier</td>
<td>Andrew Whiteley</td>
<td>Ahelopathy of Marine Epiphytic Bacteria: Assessment of the Realistic Ecological Role of Bacterial Secondary Metabolites Jan Tebben</td>
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<td>11.30-11.45</td>
<td>Interaction Between Glycolate and Rhizosphere Microbial Diversity</td>
<td>Melanie Weckert</td>
<td>Volatile Terpenoid Response from Methyl Jasmonate Treatment of Four Conifer Species Lima Lomborg</td>
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<td>12.00-12.15</td>
<td>Effects of a Rhizospheric Biocatalytic Fungus on Plant Growth and Aboveground Herbivore Defence</td>
<td>Michael Rostas</td>
<td>Efficiency of Constituents from Thai Alpinia Galanga (L.) Against Phytopathogenic Fungi and Structure Activity Relationship Rechnawan Mongkol</td>
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<td>John Abraham</td>
<td>Vareicidal Differences in Rice Metabolites Elicited by Insect Gut Contents Takako Aboshi</td>
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<td>Keynote: Opportunities for Livestock Production, Including Fish Farming, and Human Health from New Concepts in Invertebrate Chemical Ecology</td>
<td>Keynote: Chemical Mediation of Interactions Between Seaweeds and Their Diverse Microbial Communities</td>
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<td>New Chemical Ecology Based Interventions for the Control of Ectoparasites Affecting Farmed Livestock and Human Health</td>
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<td>Integration of Olfaction and Taste Information for Feeding Preference in the Fly</td>
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<td>Antagonism between Herbivore-Induced Plant Volatiles and Trichomes Affects Trirophic Interactions</td>
<td>Identification of Scent Signals Contributing to Species, Sex, Age and Individual Recognition from Anal Sac Secretions and Feaces in the Domestic Cat</td>
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**Room:** 218  219  220  217

**Session Chairs:** Gerhard Gries, Simon Fraser University, Canada and John Hildebrand (University of Arizona, USA)

**Keynote:** Chemical Mediation of Interactions Between Seaweeds and Their Diverse Microbial Communities

**Poster Display:**
- Germany
- Australia
- New Zealand
- USA
- Canada
- Mexico
- South America
- Africa
- Asia
- Europe
- Oceania
- The Americas
Thursday 22 August 2013

08.00-17.30 Registration

08.00-17.30 Exhibition

09.00-10.30

Symposium 29

Topic 17: Chemical Ecology (General Topics)

Session Chairs: Myron Zalucki (University of Queensland, Australia) and Alex Il‘ichev (Department of Environment and Primary Industries, Australia)

09.00-09.15

Gustatory Responses of Antheraea Assamensis Hoffer (Lepidoptera: Saturniidae) Larvae

Mary Joseph

09.15-09.30

Abnormal Thickening of the Peritrophic Membrane of Oviposition of the Diamond Back Moth, Plutella xylostella L.

Gustatory Responses of Antheraea Assamensis Helfer

09.30-09.45

Beetle Juice Strategy: ABC Transporter Functions as a Pacemaker For Sequestration of Plant Glucosides in Leaf Beetles

Anja Strauss

09.45-10.00

Phytolore: Fruiting Bodies Sequester and Hydrolyze Glucosinolates from Their Host Plants

Franziska Beran

10.00-10.15

Analysis of Glucose Conjugates in Leaf Beetles and Their Host Plants

Gerhard Pauls

10.15-10.30

Development of a Novel Cell-Based Odorant Sensor Based on Insect Odorant Receptors

Hidefumi Mitsuno

11.00-12.45 Symposium 32

Topic 17: Chemical Ecology (General Topics)

Session Chairs: Myron Zalucki (University of Queensland, Australia) and Alex Il‘ichev (Department of Environment and Primary Industries, Australia)

11.00-11.15

Potency of 'Frass and Plant Volatile' to Enhance the Herbivore-Induced Signaling and Defense Responses in Rice

Bao-Jian Ding

11.30-11.45

Eco-Physiological Consequences of UV-B on their Ecological Relevance

Tania Jogesh

11.45-12.00

Evidence for Aggregation Control by Cuticular Hydrocarbons in the European Earwig, Forficula auricularia

Ann Ray

12.00-12.15

 Revealing the Love Dart Allopherone: The Molecular Basis for Paternity Success in Helicid Snails

Michael Steward

12.15-12.30

Comparisons of Familial and Gender Specific Differences in Cuticular Hydrocarbons in Two Species of Australian Pseudolid Psyllids (Hemiptera: Psylloidea)

Falko Djrilhout

12.30-12.45

Eco-Physiological Consequences of UV-B on Brassicaceae - Impact on the Co-Evolutionary Arms Race Between Plants and their Enemies

Inga Mewis

12.45-13.45 Lunch

Room: Level 2 Foyer

11.00-11.15

Osh-H-WRKY Transcription Factor Regulates Herbivore-Induced Signaling and Defense Responses in Rice

Lingfei Hu

11.15-11.30

Potency of ‘Prasin and Plant Volatile’ to Enhance the Bio-Efficacy of Dadegma seminaeum Hellen, against Diamond Back Moth, Plutella xylostella L. Agos Susika

Koji Noge

11.30-11.45

Herbivore-Induced Leucine-Derived Nitrile in the Evening Primrose Attracts the Predatory Shield Bug

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Inga Mewis

12.45-13.45 Lunch

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<td>Myron Zalucki (University of Queensland, Australia) and Alex Ilkichev (Department of Environment and Primary Industries, Australia)</td>
<td>David Williams (Department of Environment and Primary Industries, Australia) and Max Suckling (Institute of Plant and Food Research, New Zealand)</td>
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<td>Registration of a Plant Volatile-Based Attract and Kill Formulation for Helioconera Spp. in Australia</td>
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