Plant Reproduction
FOR FOOD
MELBOURNE 2012

XXII International Congress on Sexual Plant Reproduction
University of Melbourne, Australia
13-17 February 2012

HANDBOOK & ABSTRACTS
THANK YOU TO OUR SPONSORS
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1. Woodward Centre, Level 10 – Conference Sessions
2. University House – Conference Dinner
3. School of Land and Environment Lawns – BBQ
4. Graduate House – Sunday registration
5. Ormond College – University accommodation
Welcome from the XXII International Congress on Sexual Plant Reproduction Organizing Committee

Dear Colleagues,

We are delighted to welcome you to the XXII International Congress on Sexual Plant Reproduction. The theme of this congress is Plant Reproduction for Food. Plant Reproduction for Food will provide an interactive environment to share fundamental discoveries in plant reproduction in model and crop species with the aim of utilizing them to increase food yield.

Thank you for attending the XXII International Congress on Sexual Plant Reproduction. May your time in Melbourne be a chance to learn, network and relax with friends and colleagues.

It has been a most rewarding experience organizing and developing the XXII congress scientific and social programs. We hope that you, the honored participant, will thoroughly enjoy the venue and Congress.

Delegates may count on a stimulating and varied scientific program that is highly relevant to both the theory and practice of plant reproduction and its increasing significance for increasing crop yields. With world-renowned invited speakers, talks from enthusiastic young researchers and poster presentations, the plant reproduction for food conference should be an exciting and intellectually stimulating event for any young and established researcher in this exciting field.

And yes, there will be many opportunities to socialize during the congress. Share a drink or two with colleagues during the mixer on Monday evening at the Woodward Centre and enjoy breathtaking views of the city of Melbourne. Join in with a BBQ meal on Tuesday evening and be entertained by Élan, an award winning string quartet from the Victorian College of the Arts. Join one of the Wednesday afternoon Yarra Valley tours and taste quality local wines and view Australia’s unique birds and animals in the award winning Healesville Wildlife Sanctuary. Finally, rock the night away with the “Rock Goddess,” a Las Vegas style tribute show during Thursday evening’s conference dinner in the gracious University House.

Welcome to Melbourne – an exciting cosmopolitan city, renowned for its staggering choice of restaurants, café-filled laneways, cool bars, local art galleries, luscious parks and village-like inner suburbs, each with its own special character. We hope that you will have a fun-filled time in this vibrant city and take home memories and experiences to last a lifetime. Enjoy!

Mohan Singh Chair
Prem Bhalla Treasurer
Anna Koltunow General Secretary
COMMITTEES

IASPRR BOARD MEMBERS
President: Thomas Dresselhaus
Vice-President: Tetsuya Higashiyama
Secretary-General: Noni Franklin-Tong
Past President: Scott D. Russell
Treasurer: Stefanie Sprunck

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Maria Helenena S. Goldman
Gary Drews

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- Prem Bhalla, Reproduction biotechnology for food
- John Bowman, Evolution, structure, development of reproduction
- Christopher Davies, Fruit development
- Liz Dennis, Heterosis and hybrid systems
- Rudy Dolfers, Reproduction and environmental stress
- Gary Drews, Female gametophyte and endosperm patterning
- Noni Franklin-Tong, Pollen pistil interaction and self-incompatibility
- Caroline Gross, Pollination biology and plant-pollinator interactions
- Frank Gubler, Seed development, quality and dormancy
- Mohan Singh, Male gametophyte development and meiosis
- Anna Koltunow, Apomixis
- Jim Weller, Flowering and time to flower

GENERAL INFORMATION

INTERNET
Wireless connection is available in The Woodward Centre. View the wireless networks available and select the ‘Visitor’ network
Enter the username and password listed below to log on:
User Name: plantreproduction
Password: 7YiQCLRY

VENUE
The Woodward Conference Centre on level 10 of the Law Building of the University of Melbourne, adjacent to University Square in Pelham Street will be the venue for the registration desk, the Welcome Mixer, lunches and poster presentations. It will be open from 08:30 – 18:00 for delegates to relax and enjoy networking over coffee and tea.
Oral sessions and morning and afternoon breaks will be held in the theatres on Level 1 of the Law Building. There are six lifts (elevators) to take delegates to level 10.

REGISTRATION DESK
The desk will be open at the following times:

DAY  TIME
Monday 13 February  07:30 – 18:00
Tuesday 14 February  08:00 – 17:30
Wednesday 15 February  08:00 – 14:30
Thursday 16 February  08:00 – 17:30
Friday 17 February  08:00 – 13:30

Attendance Certificates
Letters of verification of attendance will be available on request at the registration desk.

Name Badges
Each delegate will receive a name badge on registration. The badge will be the official pass and must be worn to gain entry to all sessions, lunch and refreshment breaks. If a name badge for a partner attending a social function is required, please ask at the registration desk.

Mobile Phones
Please ensure that all mobile phones are switched to silent mode during scientific sessions.

Refreshments
All morning and afternoon coffee and tea breaks will be served in the foyer outside the lecture theatres on Level 1. Lunch will be served in The Woodward Centre on Level 10. If you have requested a special meal please make yourself known to the catering staff.

Hotel Check-out
Please note that check out time in most hotels and colleges is 10:00 am. Facilities will be available from 08:30 to 14:30 for the storage of luggage in The Woodward Centre on Friday 17 February.

Tipping
Tipping is not widespread or regulated in Australia, and is generally recognised as a reward for exceptional service.
GENERAL INFORMATION

Currency and Banking
The Australian Dollar ($A) is a decimal currency with units in dollars and cents. Currency exchange facilities are available at major hotels and city banks. Normal banking hours are Monday – Thursday 09:30 to 16:00 and 09:30 to 17:00 Friday. Banks are closed weekends but ATM's are available 24 hours per day.

Weather
With its variable climate, Melbourne is warm to hot in summer (December to February). Melbourne's warmest months are generally January and February, which are often dry and prone to hot spells, although some respite is provided by the cooling sea breezes of Port Phillip Bay.

INFORMATION FOR PRESENTING AUTHORS

PC PROJECTION
PC projection (Microsoft PowerPoint XP) will be available in lecture rooms. Presentations will be accepted on a USB Mass Storage Device in the Speaker Support Centre located in the Boardroom on Level 10. It is important that all speakers giving oral presentations check in with Speaker Support, as early as possible so that presentations can be loaded and checked. Microsoft Office PowerPoint will be used during the sessions.

POSTER PRESENTATIONS
Posters can be mounted on the posterboards located in the Conference Room of The Woodward Centre from 08:30 on Tuesday 14 February. Velcro will be available – pins are not permitted on the boards. Posters must be taken down by 13:30 on Friday 17 February.

POSTER VIEWING SESSIONS
Poster viewing will be available in The Woodward Centre during the extended lunch breaks on Tuesday and Thursday and early evening on Tuesday. Authors of posters will be asked to be present for discussion from 13:30 – 14:00 on Tuesday and Thursday and from 15:40 – 16:30 on Tuesday.

YOUNG SCIENTIST PRESENTATION AWARDS FROM THE IASPRR

- H.F. Linskens Oral Presentation Awards
- M.T.M. Willemse Poster Awards
These will be judged by persons appointed by the IASPRR. To be eligible, the applicant must be a member of IASPRR. Awards will be presented by the Society President Professor Thomas Dresselhaus in the Closing Session beginning at 12:45 on Friday 17 February.

Language
All sessions will be conducted in English. Simultaneous translation will not be provided.

FOR GENERAL ASSISTANCE DURING THE MEETING, PLEASE CONTACT THE MEETING SECRETARIAT, LARA BIRCHBY on 0411 439 410.
**SOCIAL EVENTS**

**Welcome Mixer**
*Date:* Monday 13 February  
*Time:* 18:30 – 20:30  
*Venue:* The Woodward Centre, Level 10, Law Building

The Woodward Conference Centre affords breathtaking views of University Square and the city of Melbourne. Drinks and hot and cold cocktail food will be served. This event is free of charge for participants and guests.

**BBQ Event**
*Date:* Tuesday 14 February  
*Time:* 18:30 – 20:30  
*Venue:* School of Land and Environment, Melbourne University  
*Tickets:* $A10 per person (children under the age of 15 years free) available from the Registration Desk (cash or Mastercard and Visa credit card only) until 09:00 on Tuesday 14 February.

The School of Land and Environment is only a short walk across University Square from The Woodward Conference Centre. Guides will be available between 18:30 – 18:45 at the entrance of the Law Building to take delegates to the BBQ.

**Congress Dinner**
*Date:* Thursday 16 February  
*Time:* Pre-dinner drinks 19:00 – 19:30  
*Dinner:* 19:30 – 23:00  
*Venue:* University Club, Melbourne University  
*Dress:* Smart casual  
*Tickets:* A limited number of tickets @ $100 per person (cash or Mastecard and Visa credit card only) are available from the registration desk.

A three course meal and beverages will be served in the gracious University Club. Entertainment will be provided by Melbourne band, The Rock Goddess Show.

**EXCURSIONS**

**Wednesday 15 February**
*12:30 – 18:00*  
*Boxed lunches will be available for collection from the foyer outside the lecture theatres on Level 1. Coaches will be parked outside the building. It is important that all passengers are seated by 12:25. Coaches will return by 18:00.*

**1. Yarra Valley and Healesville**  
This tour will take you through the Yarra Valley with a chance to taste the wines before continuing to the award winning Healesville Wildlife Sanctuary where you will able to view Australia’s unique birds and animals in a natural bush land setting. Get up close to koalas, kangaroos, wombats, emus, cockatoos, parrots and many more and witness the amazing and exciting Eagles Fly demonstration within the sanctuary.

Limited tickets @ $A30 per person (cash or Mastercard and Visa credit card only) - children under the age of 15 years free - available from the registration desk.

**2. Yarra Valley Wineries**  
Tour the Yarra Valley’s beautiful verdant hills and prosperous vineyards. Tantalise your taste buds at Rochfords and Dominique Portet wineries where you may sample and buy a selection of quality local wines. Enjoy a winemaking tour of the highly regarded Domaine Chandon, maker of one of Australia’s best sparkling wines, sip a glass of wine and enjoy local cheeses on the patio while soaking up views of the beautiful Yarra Valley from the Greenpoint Room.

Limited tickets @ $A30 per person (cash or Mastercard and Visa credit card only) - children under the age of 15 years free - available from the registration desk.

**Day Tours**
For information about tours in and around Melbourne visit the Tourist Victoria website: www.visitvictoria.com

For extended visits to other parts of Australia, visit the Australian Tourism website: www.australia.com
Plant Reproduction
FOR FOOD
MELBOURNE 2012

SCIENTIFIC PROGRAM
MONDAY 13 FEBRUARY 2012

07:30–18:00 Registration opens Level 10, Woodward Centre

09:00–09:35 OPENING CEREMONY Level 1, GM15
Organisers: Mohan Singh, Prem Bhalla and Anna Koltunow

09:35-10:00 O1-1 Food security, something to chew on
Langridge P (Australia)

10:00-10:30 Morning break Level 1, Foyer

10:30-12:40 PLENARY SESSION 1 (S1) Level 1, GM15
Chairs: Hugh Dickinson and Qifa Zhang

10:30-10:55 S1-1 Marchantia polymorpha: evolution of land plants
Bowman JL, Alvarez J, Dierschke D, Eklund M, Floyd SK, Flores E,
Furumizu C, Hirakawa Y, Ryan J and Sakakibara K (Australia)

10:55-11:20 S1-2 Seasonal flowering in annual and perennial plants
Coupland G (Germany)

11:20-11:40 S1-3 Integration of environmental signals by FLOWERING LOCUS T
Schmid M (Germany)

11:40-12:00 S1-4 Natural variation for flowering in pea
B, Dalmais M, Rameau C, Bendahmane A, Macknight RC and Lejeune-
Hénaut I (Australia, New Zealand and France)

12:00-12:20 S1-5 Rice inflorescence development
Kyoizuka J (Japan)

12:20-12:40 S1-6 CsMADS1 is a cucumber AP3 homolog and involved in transcriptional
regulation of ethylene receptors
(China)

12:40-13:40 Lunch Level 10, Woodward Centre

13:40-15:20 PLENARY SESSION 2 (S2) Level 1, GM15
Chairs: Imran Siddiqi and Hong Ma

13:40-14:00 S2-1 RNA-binding proteins play central roles in germline cells to go through
premeiosis and early meiosis in rice
Nonomura K-I (Japan)

14:00-14:20 S2-2 Mitosis-meiosis-mitosis transitions - two switches required for the
sexual reproduction in plants
Wang C-JR, Hsiao Y-H, Kao Y-H and Ku J-C (Taiwan)

14:20-14:40 S2-3 JASON maintains meiotic spindle orientation through organelle
positioning
Brownfield L, Oh SA, Twell D and Köhler C (New Zealand, Switzerland, South
Korea, UK and Sweden)

14:40-15:00 S2-4 Molecular genetic, transcriptomic and genomic characterization of
meiotic recombination in Arabidopsis
Ma H (China and USA)

15:00-15:20 S2-5 A new fatty alcohol production pathway in plastids: a lesson from rice
male reproductive development
Zhang D (China)

15:20-16:00 Afternoon Break Level 1, Foyer
16:00–18:00  **CONCURRENT SESSION 1: FLOWERING (C1)**  
Chairs: Jim Weller and Junko Kyozuka  

16:00-16:15  C1-1  
**Do non-coding RNAs regulate Arabidopsis FLC expression?**  
Helliwell C, Finnegan J, Robertson M and Dennis E (Australia)  

16:15-16:30  C1-2  
**A living system to study chromatin dynamics of FLOWERING LOCUS C during vernalization**  
Mylne JS, De Lucia F, Rosa S, Ohmido N, Kato N, Shaw P and Dean C (Australia, UK, Japan and USA)  

16:30-16:45  C1-3  
**Functional analysis of FT genes in pea**  
Hecht V, Dalmais M, Bendahmane A and Weller JL (Australia and France)  

16:45-17:00  C1-4  
**The regulation of Medicago truncatula flowering time in response to environmental signals**  
Macknight R, Laurie R, Jaudal M, Lough R and Weller JL (New Zealand and Australia)  

17:00-17:15  C1-5  
**Spring1 and other early flowering Medicago truncatula mutants with altered response to vernalisation**  
Balcerowicz M, Yeoh C-C, Jauda M, Zhang L, Mysore K, Ratet P and Putterill J (New Zealand, USA and France)  

17:15-17:30  C1-6  
**GmFT2a, a soybean homologue of FLOWERING LOCUS T, is involved in flowering induction and maintenance**  
Sun H, Jia Z, Cao D, Jiang B, Wu C, Hou W, Liu Y, Fei Z, Zhao D and Han T (China and USA)  

17:30-17:45  C1-7  
**Cell-type specific analysis of translating RNAs in developing flowers**  
Jiao Y and Meyerowitz EM (China and USA)  

17:45-18:00  C1-8  
**ROXYs: a novel function for land-plant specific glutaredoxins in flower development**  
Zachgo S (Germany)  

16:00–18:00  **CONCURRENT SESSION 2: POLLINATION FOR SUSTAINABLE ECOSYSTEMS (C2)**  
Chairs: Caroline Gross and Linda Newstrom-Lloyd  

16:00-16:15  C2-1  
**Pollination ecology for sustainable ecosystems: three key issues for action**  
Gross, CL (Australia)  

16:15-16:30  C2-2  
**Diverse native assemblages contribute to sustaining pollinator services**  
Wardle GM, Popic AJ and Davila YC (Australia)  

16:30-16:45  C2-3  
**Insect pollination of crops in Australia: understanding the present and navigating the future**  
Cunningham SA (Australia)  

16:45-17:00  C2-4  
**Bee pollination of vegetable crops in enclosures**  
Dag A (Israel)  

17:00-17:15  C2-5  
**Florivory reduces seed set of nectar rich Crotalaria cunninghamii in arid Australia**  
Popic AJ, Wardle GM and Davila YC (Australia)  

17:15-17:30  C2-6  
**Improving pollinator security in New Zealand**  
Newstrom-Lloyd L (New Zealand)  

17:30-17:45  C2-7  
**Pollen parent effects on fruit attributes of Actinidia chinensis (kiwifruit) seedlings**  
Seal AG, Dunn JK, De Silva HN, McGhie A and Lunken RCM (New Zealand)  

17:45-18:00  C2-8  
**Using pollinator networks for the restoration of endangered ecological communities**  
Vary LB and Gross CL (Australia)  

18:00-18:30  **GROUP PHOTOGRAPH**  

18:30-20:30  **Welcome Mixer**  

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**PLANT REPRODUCTION FOR FOOD** XXII International Congress on Sexual Plant Reproduction University of Melbourne, Australia 13-17 February 2012
### TUESDAY 14 FEBRUARY 2012

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| 09:00–10:30   | **PLENARY SESSION 3 (S3)**  
*Chairs: Rod Scott and Wei Cai Yang*                        | Level 1, GM15              |
| 09:00-09:20   | **S3-1 Transposable element silencing in *Arabidopsis* pollen**  
DeFraia C, McCue AD, Nuthikattu S and Slotkin RK (USA)        | Level 1, GM15              |
| 09:30-09:45   | **S3-2 Studying tobacco pistil development and factors controlling its size**  
Strini EJ, Toledo-Filho LAA, DePaoli HC; Lubini G, Cossalter V, Brito MS, Silva-Torres FA, Quiapim AC, Goldman GH, Zhao Y and Goldman MHS (Brazil and USA) | Level 1, GM15              |
| 09:45-10:05   | **S3-3 Molecular mechanism for stigma and style specilization in *Arabidopsis thaliana***  
Li W, Zou J, Wu J, Peng X, Alvarez JP and Sun M-X (China and Australia) | Level 1, GM15              |
| 10:05-10:30   | **S3-4 Control of directional growth in pollen tubes is mediated by actin dynamics**  
Daher FB, Kroeger J and Geitmann A (Canada)                     | Level 1, GM15              |
| 10:30-11:00   | Morning Break                                                                               | Level 1, Foyer             |
| 11:00–12:40   | **PLENARY SESSION 4 (S4)**  
*Chairs: Maria-Helena Goldman and Daniel Matton* | Level 1, GM15              |
| 11:00-11:20   | **S4-1 Guess who’s coming to dinner? Pollination type recognition from a distance by the ovary is revealed by a global transcriptomic analysis**  
Tebbi F, Nantel A and Matton DP (Canada)                        | Level 1, GM15              |
| 11:20-11:40   | **S4-2 *POD1*, a novel ER protein, controls the pollen tube response to female cues in *Arabidopsis***  
Li H, Xue Y, Wang T, Yang W (China)                             | Level 1, GM15              |
| 11:40-12:00   | **S4-3 Molecular dialogues between pollen and pistil**  
Beale KM, Leydon AR., Frank AC, Wong JL, Qin Y, Basu A, Palanivelu R and Johnson M (USA) | Level 1, GM15              |
| 12:00-12:20   | **S4-4 Molecular mechanisms of self-incompatibility in brassicaceae**  
Iwano M, Ito K and Takayama S (Japan)                           | Level 1, GM15              |
| 12:20-12:40   | **S4-5 The *Arabidopsis* egg cell acts as a signaling center for the development of female gametophytic cells**  
Völz R, von Lyncker L, Baumann N, Dresselhaus T, Sprunck S, and Gross-Hardt R (Germany) | Level 1, GM15              |
| 12:40-14:00   | Lunch and Poster Session 1 (13:30-14:00)                                                   | Level 10, Woodward Centre |
| 14:00–15:40   | **PLENARY SESSION 5 (S5)**  
*Chairs: Gary Drews and Ueli Grossniklaus*                      | Level 10, Woodward Centre |
| 14:00-14:20   | **S5-1 Functional and evolutionary characterization of attractant peptides in *Arabidopsis thaliana***  
Takeuchi H and Higashiyama T (Japan)                           | Level 10, Woodward Centre |
| 14:20-14:35   | **S5-2 Live cell imaging reveals dynamics of two sperm cells during double fertilization in *Arabidopsis thaliana***  
Hamamura Y, Saito C, Kanaoka MM, Sasaki N, Nakano A, Berger F and Higashiyama T (Japan and Singapore) | Level 10, Woodward Centre |
| 14:35-14:55   | **S5-3 Analyzing plant gamete recognition and fusion in *Arabidopsis***  
Sprunck S (Germany) - Paper to be presented by Thomas Dresselhaus | Level 10, Woodward Centre |
| 14:55-15:15   | **S5-4 Establishment of germline and early embryo polarity**  
Dresselhaus T, Lausser A, Krohn N, Juranic M, Sprunck S, Schönberger J, Hammes U (Germany) | Level 10, Woodward Centre |
| 15:15-15:40   | **S5-5 Searching for elements of apomixis in *Arabidopsis thaliana***  
Schmidt A, Wuest SE, Vijverberg K, Baroux C, Kleen D, Schmid M and Grossniklaus U (Switzerland, Ireland and The Netherlands) | Level 10, Woodward Centre |
| 15:40-1600    | Afternoon Break                                                                             | Level 1, Foyer             |
16:00-17:45 Concurrent Session 3c Self Incompatibility, Pollen Fertility and Embryogenesis (C3)
Chairs: Ed Newbigin and Megumi Iwano

16:00-16:15 C3-1 Pollen tube acidification is essential for caspase-like activities in the self-incompatible species Papaver rhoeas
Wilkins KA, Bosch M, Poulter NS and Franklin-Tong N (UK)

16:15-16:30 C3-2 Characterisation of functional and non-functional S-haplotypes of the ribonuclease-based self-incompatibility system in Petunia hybrida
Czyżyk R, Sonneveld T, Tumusiime S, Devisetty U, Dzidzienyo D and Robbins T (UK)

16:30-16:45 C3-3 Towards identification of the Primula S locus
Li J, Webster M, Smith M and Gilmartin PM (UK)

16:45-17:00 C3-4 Self-compatibility in local Spanish sweet cherry (Prunus avium L.) cultivars
Cachi AM, Hormaza JI and Wünsch A (Spain)

17:00-17:15 C3-5 Self-incompatibility in weedy populations of the wild radish Raphanus raphanistrum
Newbigin E, Hoebee S, Koh JE-O, Pierson J, Swain S and Young A (Australia)

17:15-17:30 C3-6 Pre- and postmeiotic mechanisms causing 2n microspore formation
De Storme N, Tholat Lazar MS, Zama riola L and Geelen D (Belgium)

17:30-17:45 C3-7 Molecular and structural analysis of pollen embryogenesis in barley

16:00-17:45 Concurrent Session 4c Apomixis (C4)
Chairs: Helmut Baumelein and Simon Chan

16:00-16:15 C4-1 HAPPY - an apospory locus of Hypericum

16:15-16:30 C4-2 Transcriptome analyses of somatic cells undergoing female gametophyte development in Hieracium
Okada T, Hu Y, Johnson SD, Taylor J, Tucker MR, Spriggs A, Tsuchiya T and Koltunow AM (Australia, China and Japan)

16:30-16:45 C4-3 Analysis of small RNAs during apomixis initiation in Hieracium

16:45-17:00 C4-4 Structure of the LOSS OF PARTHENOGENESIS (LOP) locus in apomictic Hieracium
Bicknell R, Catanach A, Erasmuson S and McGee R (New Zealand)

17:00-17:15 C4-5 Expression analysis of Polycomb Repressive Complex2 (PRC2)-related genes in apolictic and sexual Brachiaria brizantha
Rodrigues JCM, Coelho CMSS, Lacerda ALM, Guimarães LA, Florentino LH and Carneiro VTC (Brazil)

17:15-17:30 C4-6 Characterization of MADS-box genes from apomictic and sexual plants of Brachiaria brizantha
Guimarães LA, Dusi, DMA, Masiero, S, Resentini, F, Gomes, ACM, Silveira E D, Rodrigues, JCM, Colombo, L and Carneiro, VTC (Brazil)

17:30-17:45 C4-7 Cloning, expression and methylation analysis of PcG gene EbEZ in apomictic Eulaliopsis binata
She Q-M, Hu C-G, Yao J-Li (China)
TUESDAY 14 FEBRUARY 2012 continues...

16:00-17:45  **CONCURRENT SESSION 5: NEW INSIGHTS IN PLANT GROWTH (C5)**

*Chairs: Bernard Carroll and Steve Swain*

**16:00-16:15**  **C5-1**  **Graft-transmissible gene silencing in *Arabidopsis***
Gursanscky NR, Dressel U, Tucker MR, Koltunow AMG and **Carroll BJ** (Australia)

**16:15-16:30**  **C5-2**  **Spike architecture and yield potential in wheat**
Swain S, Boden S and Cavanagh C (Australia)

**16:30-16:45**  **C5-3**  **The *Arabidopsis* block to polytubey is initiated by gamete fusion**
Beale KM, Leydon AR, Johnson MA (USA)

**16:45-17:00**  **C5-4**  **Programmed cell death during plant reproductive development**
Fendrych M, Van Hautegem T, Salanenka Y, Olvera Y, Van Durme M, De Winter F and Nowack MK (Belgium)

**17:00-17:15**  **C5-5**  **Activity of the MCM2-7 helicase complex in endosperm development of *Arabidopsis***
Herridge RP, Day RC and Macknight RC (New Zealand)

**17:15-17:30**  **C5-6**  **Histological and microarray analysis of the direct effect of water shortage alone or combined with heat on early grain development in wheat**
Jäger K, Szűcs A, Jurca Me, Fábián A, Bottka S, Zvara A, Fehér A and Barnabás B (Hungary)

**17:30-17:45**  **C5-7**  **A role for the ribosome in plant development**
Byrne ME, Zsogon A and Szakonyi D (Australia)

**17:45-18:30**  **Poster Session 2**  **Level 10, Woodward Centre**

**18:30-20:30**  **BBQ on the Lawns**  **Melbourne School of Land and Environment, Uni of Melb**

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**PLANT REPRODUCTION FOR FOOD**  **XXII International Congress on Sexual Plant Reproduction**  **University of Melbourne, Australia 13-17 February 2012**

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WEDNESDAY 15 FEBRUARY 2012

08:00–14:30 Registration opens  
Level 10, Woodward Centre

09:00-10:30 PLENARY SESSION 6 (S6)  
Level 1, GM15

Chairs: Fred Berger and Geoff Fincher

09:00-09:20 S6-1 Maternal gametophyte effects on maize seed development  
Evans MMS (USA)

09:20-09:40 S6-2 Early endosperm development in Arabidopsis and maize  
Drews GN, Yadegari R, Larkins BA, Clore A and Dannenhoffer JM (USA)

09:40-10:05 S6-3 Nutrient transfer to the maize endosperm is regulated by genomic imprinting  

10:05-10:30 S6-4 Maternal control of endosperm development and seed size  

10:30-11:00 Morning Break  
Level 1, Foyer

11:00-12:15 PLENARY SESSION 7 (S7)  
Level 1, GM15

Chairs: Liz Dennis and Chung-Ju Rachel Wang

11:00-11:25 S7-1 Epigenetics and heterosis  
Greaves I, Groszmann M, Fujimoto R, Dennis E and Peacock J (Australia)

11:25-11:50 S7-2 Genetic and molecular understanding of sub-specific reproductive isolation between indica and japonica rice  
Zhang Q (China)

11:50-12:15 S7-3 Basic reproductive biology: its role in improving crop productivity  
Albertsen MC (USA)

12:15 Lunch – see instructions below

Boxed lunches for those on excursions to be collected from foyer on Level 1 – boxed lunches will also be available in The Woodward Centre.

12:30-18:00 Afternoon Excursions

EVENING  FREE NIGHT
THURSDAY 16 FEBRUARY 2012

08:00–17:30 Registration opens  Level 10, Woodward Centre

08:30–10:30  **PLENARY SESSION 8 (S8)**  Level 1, GM15

*Chairs:  Sacco de Vries and Mark Johnson*

08:30-08:50  **S8-1** Early transcriptional dynamics in the unfertilized egg, fertilized egg and zygote of rice

Zhang Y, Sen M, Gou X, Tian HQ and  **Russell SD** (USA and China)

08:50-09:05  **S8-1a** Revisiting the composition of cell walls of *Nicotiana alata* pollen tubes using next-generation sequencing technology and immunocytochemistry

Moller IE, Lampugnani ER, Cassin A, Wilson S, Koh PL, Bacic A and Newbiggin E (Australia)

09:05-09:20  **S8-1b** *De novo* characterization of the *Marchantia polymorpha* gametophyte transcriptome to identify genes involved in sexual reproduction

Sharma N, Singh MB and Bhalla PL (Australia)

09:20-09:40  **S8-2** Local auxin biosynthesis triggers cell polarization for the establishment of an apical-basal axis in *Arabidopsis* embryo


09:40-10:05  **S8-3** Hormonal and light regulation of grain dormancy in barley

Barrero JM, Downie AB, White R, Jacobsen JV, and  **Gubler F** (Australia and USA)

10:05-10:30  **S8-4** Cell walls and food quality in developing cereal grains

Fincher G (Australia)

10:30-11:00 Morning Break  Level 1, Foyer

11:00-12:40  **PLENARY SESSION 9 (S9)**  Level 1, GM15

*Chairs:  Frank Gubler and Christopher Davies*

11:00-11:20  **S9-1** The *Arabidopsis* DEAD-box MA helicase is a novel negative regulator of glucose and abscisic acid signaling during seed germination and early seedling growth

Chen Y-C, Hsu Y-F, Wang B-J, and Wang C-S (Taiwan)

11:20-11:40  **S9-2** Whole-genome sequencing and future foods

Hellens RP (New Zealand)

11:40-12:00  **S9-3** A number of hormones play a role in berry ripening but auxin may be the key

Böttcher C, Boss PK and Davies C (Australia)

12:00-12:20  **S9-4** Redundant gene action specifies transmitting tract and dehiscence zone development in carpels and fruits of *Arabidopsis thaliana*

Smyth DR, Groszmann M and Paicu T (Australia)

12:20-12:40  **S9-5** The MYB factors 1, FSM1, FSB1 and MYBI interplay in differential cell expansion and consequences for tomato fruit development

Machemer K, Shaiman O, Salts Y, Shabtai S, Sobolev I, Kolet L, Clap C, Belausov E, Grotewold E and Barg R (USA and Israel)

12:40-14:00 Lunch and Poster Session 3 (13:30-14:00)  Level 10, Woodward Centre

14:00-15:30  **PLENARY SESSION 10 (S10)**  Level 1, GM15

*Chairs:  Matthew Evans and Sureshkumar Balasubramanian*

14:00-14:20  **S10-1** Natural variation in thermal responses of *Arabidopsis thaliana*

Balasubramanian S (Australia)

14:20-14:40  **S10-2** Crosstalk between photoperiodic flowering and stress signaling in plants

Yokoi S (Japan)
### THURSDAY 16 FEBRUARY 2012 continues...

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<th>Time</th>
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<tr>
<td>14:40-15:05</td>
<td>S10-3 High temperature stress and plant reproduction</td>
<td>Sage TL, Harsant JH, and Bagha S (Canada)</td>
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<tr>
<td>15:05-15:30</td>
<td>S10-4 Mechanisms to terminate the maintenance of floral stem cells</td>
<td>Liu X, Kim YJ, Yumul R and Chen X (USA)</td>
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<td>15:30-16:00</td>
<td>Afternoon Break</td>
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<td>16:00-16:15</td>
<td><strong>CONCURRENT SESSION 6: IMPRINTING (C6)</strong></td>
<td>Level 1, Room 106</td>
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<td><strong>C6-1</strong> DNA methylation dynamics of plant sexual reproduction</td>
<td>Zilberman D (USA)</td>
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<td><strong>C6-2</strong> Asymmetrical regulation of DNA methylation and non coding RNAs</td>
<td>regulate imprinting</td>
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<td>Vu MT and Berger F (Singapore)</td>
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<td><strong>C6-3</strong> Imprinting and transcriptional networks in seed development</td>
<td>Shizradi R, Andersen ED, BjerkAN KN, Sto I, Gloeckle BM, Heese M Schnittger A and Grini PE (Norway and France)</td>
</tr>
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<td></td>
<td><strong>C6-4</strong> Imprinting in rice seeds</td>
<td>Luo M, Taylor J, Zhang H, Spriggs A, Wu X, and Koltunow A (Australia and China)</td>
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<tr>
<td>16:45-17:00</td>
<td><strong>C6-5</strong> Role for imprinted genes in interspecies hybridization barrier in rice</td>
<td>Kinoshita T (Japan)</td>
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<tr>
<td>17:00-17:15</td>
<td><strong>C6-6</strong> Synteny-based identification of new imprinted genes in maize</td>
<td>Petersen N, Jahnke S, Scholten S (Germany)</td>
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<tr>
<td>16:00-17:30</td>
<td><strong>CONCURRENT SESSION 7: HETEROsis AND HYBRID SYSTEMS (C7)</strong></td>
<td>Level 1, Room 108</td>
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<td><strong>C7-1</strong> Trans-chromosomal methylation in <em>Arabidopsis</em> hybrids</td>
<td>Greaves IK Groszmann M, Ying E, Taylor J, Peacock WJ and Dennis ES (Australia)</td>
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<td><strong>C7-2</strong> RNAI and the inheritance of epigenetic states in plant inter-specific hybrids</td>
<td>Tanurdžić M, Auer P, Finigan P, Ernst E, Vaughn MW, Doerge RW and Martienssen RA (Australia and USA)</td>
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<td></td>
<td><strong>C7-3</strong> Early developmental heterosis in both <em>Arabidopsis thaliana</em> and Chinese cabbage</td>
<td>Fujimoto R, Taylor JM, Kawanabe T, Konno S, Shirasawa S, Peacock WJ and Dennis ES (Australia and Japan)</td>
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<tr>
<td>16:45-17:00</td>
<td><strong>C7-4</strong> Fertility restoration in three types of cytoplasmic male sterility in rice</td>
<td>Toriyama K and Kazama T (Japan)</td>
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<td>17:00-17:15</td>
<td><strong>C7-5</strong> Diverse molecular mechanisms of reproductive barriers caused by hybrid sterility in rice</td>
<td>Liu YG (China)</td>
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<td>17:15-17:30</td>
<td><strong>C7-6</strong> Evolution of pentatricopeptide repeat gene reveals genetic conflict between nucleus and mitochondria in plant reproduction</td>
<td>Fujii S, Bond C, Small I and Shikanai T (Japan and Australia)</td>
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<td>16:00-17:15</td>
<td><strong>CONCURRENT SESSION 8: SEED, FRUIT AND SEEDLESS FRUIT (C8)</strong></td>
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<td>Chairs: Roger Hellens and Paul Boss</td>
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<tr>
<td>16:00-16:15</td>
<td><strong>C8-1</strong> Utilisation of a rapid flowering grape mutant to study the genetics of varietal aroma volatile production Dunlevy J, Soole K, Perkins M, Dennis E and Boss P (Australia)</td>
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<tr>
<td>16:15-16:30</td>
<td><strong>C8-2</strong> Rapid post-fertilization auxin responses which activate fruit initiation are potentiated by a pinoid to BDL/IAA12 phosphorylation pathway Vivian-Smith A, Maraschin F, Kemel-Zago M, Helvensteyn W, Memelink J and Offringa R (The Netherlands)</td>
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<tr>
<td>16:30-16:45</td>
<td><strong>C8-3</strong> Gibberellins and reproductive development Yang C, Groszmann M, Ogawa M, Parish RW and Swain SM (Australia)</td>
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<td>16:45-16:00</td>
<td><strong>C8-4</strong> Targeted analysis of parent-of-origin dependent allelic imbalance in <em>Arabidopsis thaliana</em> seed Day R and Macknight R (New Zealand)</td>
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<tr>
<td>17:00-17:15</td>
<td><strong>C8-5</strong> RNA helicase activity, required for translation, is susceptible to IsoAsp formation but recoverable by protein ISOASPARTYL METHYLTRANSFERASE Downie AB (USA)</td>
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<tr>
<td>17:15-17:30</td>
<td><strong>C8-6</strong> Seedless fruits and ovule development: a successful story of a candidate gene approach from <em>Arabidopsis</em> to sugar apple Lora J, Gasser CS, Herrero M and Hormaza JL (Germany, USA and Spain)</td>
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<td>17:30-18:30</td>
<td><strong>IASPRR General Assembly</strong></td>
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<td>President: Thomas Dresselhaus</td>
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<td>19:30-23:30</td>
<td><strong>Conference Dinner</strong></td>
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*Level 1, Room 109*

*Level 1, GM15*

*University House, University of Melbourne*
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<tr>
<td>08:00–17:30</td>
<td>Registration opens</td>
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<tr>
<td>09:00–10:30</td>
<td><strong>PLENARY SESSION 11 (S11)</strong> &lt;br&gt;Chairs: Rudy Dolferus and Tom Gerats</td>
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<tr>
<td>09:00-09:25</td>
<td><strong>S11-1</strong> Temperature stress differentially modulates transcription in meiotic anthers of heat-tolerant and heat-sensitive tomato plants &lt;br&gt;Bita CE and Gerats T (The Netherlands)</td>
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<td>09:50-10:10</td>
<td><strong>S11-3</strong> Grapevine flower: an amazing complex with special physiological behavior &lt;br&gt;Vatsa P, Baillieul F, Jacquard C, Vaillant-Gaveau N and Clément C (France)</td>
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<td>10:10-10:30</td>
<td><strong>S11-4</strong> Reproductive stage abiotic stress tolerance in cereals &lt;br&gt;Dolferus R, Ji X and Powell N (Australia)</td>
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<td>10:30-11:00</td>
<td>Morning Break</td>
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<td>11:00–13:30</td>
<td><strong>PLENARY SESSION 12 (S12)</strong> &lt;br&gt;Chairs: Marc Albertsen and D Ry Wagner</td>
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<td>11:10-11:20</td>
<td><strong>S12-1</strong> The molecular genetics of vernalization-induced flowering in cereals &lt;br&gt;Trevaskis B (Australia)</td>
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<td>11:20-11:40</td>
<td><strong>S12-2</strong> Engineering centromeres to produce haploid plants &lt;br&gt;Marimuthu M, Maruthachalam R, Jie T, Thornhill T, Chan S (USA)</td>
</tr>
<tr>
<td>11:40-12:00</td>
<td><strong>S12-3</strong> Engineering clonal seed formation in sexual plants &lt;br&gt;Marimuthu PMA, Julivet S, Ravi M, Pereira L, Davda JN, Cromer L, Wang L, Nogué F, Chan SWL, Mercier R and Siddiqi I (India, France and USA)</td>
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<tr>
<td>12:00-12:20</td>
<td><strong>S12-4</strong> Genes controlling cotton fibre initiation &lt;br&gt;Walford SA, Llewellyn D and Dennis ES (Australia)</td>
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<td>12:20-12:45</td>
<td><strong>S12-5</strong> New technologies for enhancing agricultural productivity &lt;br&gt;Wagner DR (USA)</td>
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<td>13:30-14:30</td>
<td>Final Lunch</td>
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**FRIDAY 17 FEBRUARY 2012**

**PLENARY SESSION 11 (S11)**

**S11-1** Temperature stress differentially modulates transcription in meiotic anthers of heat-tolerant and heat-sensitive tomato plants
Bita CE and Gerats T (The Netherlands)

**S11-2** The Arabidopsis Somatic Embryogenesis Receptor-like Kinases; why do we need them in signaling?

**S11-3** Grapevine flower: an amazing complex with special physiological behavior
Vatsa P, Baillieul F, Jacquard C, Vaillant-Gaveau N and Clément C (France)

**S11-4** Reproductive stage abiotic stress tolerance in cereals
Dolferus R, Ji X and Powell N (Australia)

**PLENARY SESSION 12 (S12)**

**S12-1** The molecular genetics of vernalization-induced flowering in cereals
Trevaskis B (Australia)

**S12-2** Engineering centromeres to produce haploid plants
Marimuthu M, Maruthachalam R, Jie T, Thornhill T, Chan S (USA)

**S12-3** Engineering clonal seed formation in sexual plants
Marimuthu PMA, Julivet S, Ravi M, Pereira L, Davda JN, Cromer L, Wang L, Nogué F, Chan SWL, Mercier R and Siddiqi I (India, France and USA)

**S12-4** Genes controlling cotton fibre initiation
Walford SA, Llewellyn D and Dennis ES (Australia)

**S12-5** New technologies for enhancing agricultural productivity
Wagner DR (USA)
POSTER SESSION 1
Pollination Biology and Ecology, Male Gamete and Meiosis
TUESDAY 14 FEBRUARY, 13:30-14:00

P1.1 Identification and molecular characterization of the SOC1 gene family in kiwifruit
Voogd C and Varkonyi-Gasic E (New Zealand)

P1.2 A non-functional allele of rice RFT1, suppress floral transition under both short-day and long-day conditions
Guo J, Zhao J and Liu Y-G (China)

P1.3 Genetic control of inflorescence development in pea
Sussmilch FC, Hecht V, Van der Schoor JK, Murfet IC and Weller JL (Australia)

P1.4 Precocious flowering of Citrus seedlings and its application in male sterility study
Dewi PS, Wakana A, Tanimoto Y, Sekiya T and Sakai K (Japan)

P1.5 FLOWERING LOCUS H (FLH) and its affects in the Arabidopsis vernalisation flowering time pathway
Seedat N and Gendall A (Australia)

P1.6 Characterisation of brassica germplasm for flowering time

P1.7 Identification of differential expressed messages at sugarcane shoot apical meristem by subtractive cDNA libraries and proteomics
Medeiros AM, Leite FS, Souto VS, Uchoa AF and Scortecci KC (Brazil)

P1.8 A new genetic pathway regulating shoot architecture
Liu C and Yu H (Singapore)

P1.9 Starch accumulation along flower development and winter dormancy in apricot
Julian C, Herrero M and Rodrigo J (Spain)

P1.10 Genetic control of flowering time in lentil
Rajandran V, Hecht V and Weller JL (Australia)

P1.11 Transcriptional network controlling flowering time in Arabis alpina
Mateos JL, Albani MC and Coupland G (Germany)

P1.12 Crosstalk between photoperiod and gibberellins pathways mediated by GHD7 in rice
Weng X, Xing Y, Xu C, Li X and Zhang Q (China)

P1.13 Research progress in comparative analysis on flowering regulation between a precocious mutant and its wild type in trifoliate orange
Hu C-G, Zhang J-Z and Yao J-L (China)

P1.14 Deciphering the FT pathway by next generation sequencing and transcriptomics
Ándres F, Jang S, Cruz T, Schneeberger K, Patel V, Altmüller J, Nürnberg P and Coupland G (Germany)

P1.15 Characterization of a long non-coding RNA encoded by the pms3 locus for photoperiod-sensitive genic male sterile in rice
Ding J, Lu Q, Ouyang Y, Mao H, Zhang P, Yao J, Xu C, Li X and Zhang Q (China)

P1.16 Comprehensive analysis of tobacco pollen transcriptome unveils common pathways in polar-cell expansion and underlying heterochronic shift during spermatogenesis
Hafidh S, Breznenová K, Půžička P, Fecíková J, Capková V and Honys D (Czech Republic)

P1.17 The functions of a putative pollen-specific arabinogalactan protein gene, BCMF5, in Brassica campestris ssp. chinesis
Lin S, Cao J, and Huang L (China)

P1.18 An aspartic protease regulates pollen tube elongation in rice
Huang J, Zhao X, Jiang Y, Xu C, Li X and Zhang Q (China)

P1.19 DEFECTIVE EMBRYO AND MERISTEMS 1 (DEM1) interacts with Ras-related nuclear protein-1 (RAN1) and is required for gametophyte development in Arabidopsis
Peters J, Hawker NP, Gursanscy N, Matthew L, Lonthienne TGA, Ngo QA, Sundaresan V, Kobe B, Bowman JL and Carroll BJ (Australia and USA)
**POSTER SESSION 1 continued...**

**P1-20** Identification of a putative (1,5)-α-arabinosyltransferase in *Nicotiana alata* which is likely to be involved in Araban deposition in the walls of developing pollen tubes  
Lampugnani ER, Moller IE, Cassin A, Koh PL, Wilson S, Bacic A and Newbiggin E (Australia)

**P1-21** Identification and characterization of bZIP transcriptional regulators during male gametophyte development  
Gibalová A, Reňák D, Solcová K, Dupláklová N and Honys D (Czech Republic)

**P1-22** Gene expression in male gamete cells  
Gou X, Yuan T, Wei X, Zhang J, Li J and Russell SD (China and USA)

**P1-23** Spatio-temporal expression of pectate lyases in *Arabidopsis* male gametophyte  
Chebli Y and Geitmann A (Canada)

**P1-24** Identification and characterization of bZIP transcriptional regulators during male gametophyte development  
Gibalová A, Reňák D, Solcová K, Dupláklová N and Honys D (Czech Republic)

**P1-25** Identification and characterization of bZIP transcriptional regulators during male gametophyte development  
Gibalová A, Reňák D, Solcová K, Dupláklová N and Honys D (Czech Republic)

**P1-26** Genome-wide DNA methylation profiling through pollen development in *Arabidopsis thaliana*  
Calarco JP, Borges F, Van Ex F, Jullien PE, Tang C, Berger F, Feijo JA, Becker JD and Martienssen RA (USA, Portugal and Singapore)

**P1-27** The species problem in wild potatoes: widespread occurrence of pollen sterility and meiotic irregularities in accessions from germplasm banks and spontaneous populations from Argentina  
Camadro EL, Erazzú LE, Maune JF, Saffarano SK, Poulsen A and Bottini MC (Argentina)

**P1-28** The MATH-BTB Protein ZmMAB1 regulates spindle organization during germline development in maize  
Juranić M, Srilunchang K-O, Krohn N, Lejak-Levanić D, Sprunck S and Dresselhaus T (Croatia and Germany)

**P1-29** Pollination characteristics of *Ceratozys aequorescens* in the Mongolia plateau, China  
He X, Lu L, Li Q and Yi J (China)

**P1-30** Effects of ploidy level on floral morphology of *Acacia mangium* and pollen-pistil interactions in interploidy crosses between 4x *A. mangium* and 2x *A. auriculiformis*  

**P1-31** Expression analysis of germ-line restrictive silencing factor homologues in monocot and dicot plants  
Itabashi E, Singh MB and Bhalla PL (Australia)

**POSTER SESSION 2**

**Matting Systems, Self Incompatibility, Pollen Pistil Interactions, Female Gametogenesis and Fertilization**

**TUESDAY 14 FEBRUARY, 17:45-18:30**

**P2-32** New approaches to assaying meiotic recombination  
Barrell P, Gatehouse M and Conner T (New Zealand)

**P2-33** Floral and aromatic analyses of the soybean perennial *Glycine syndetika* for future agronomic exploitation  
Pappas AL, Koziel JA, Healy RA, Horner HT, Bailey TB, Brown AHD and Palmer RG (USA and Australia)

**P2-34** Expression of MIKC-type MADS-box transcription factors during floral transition in soybean  
Wong CE, Singh MB and Bhalla PL (Australia)
A family of pollen tube-expressed transcription factors is essential for pollen tube reception

Leydon A, Palanivelu R and Johnson M (USA)

Update on AGP functional role in pollen tube cell biology

Costa M, Pereira LG and Coimbra S (Portugal)

A shared glycoprotein crosstalk between sporophytic tissues and gametophytes in apple

Losada JM and Herrero M (Spain)

Genetic analysis of mlpk dependent novel pollen-stigma incompatibility in *Brassica rapa*

Takada Y, Shiba H, Takayama S, Isoigi A, Suzuki G and Watanabe M (Japan)

* S allele identification, S-genotyping and relationships in self-incompatible *CITRUS* cultivars and plants

Kim J-H, Wakana A, Ngo BX, Mori T, Sakai K and Handayani E (Japan and Vietnam)

Comparative physical and genetic mapping for isolation of gametophytic self-incompatible loci in perennial ryegrass

Shinozuka H, Cogan NOI, Ran Y, Spangenberg GC and Forster JW (Australia)

Analysis of synergid cell specific genes based on laser microinjection technique

Tsutsui H, Okuda S, Shiina K, Sasaki N and Higashiyama T (Japan)

Learning from failure: the “fertilization compensation system” increases the number of seeds

Kasahara RD, Maruyama D, Hamamura Y, Sakakibara T and Higashiyama T (Japan)

Analysis of female gametophyte’s function using microscopic cell manipulation and high-throughput gene expression profiling

Susaki D, Nagata T, Kawarama J, Ohyanagi H, Kanaoka MM, Toyoda A, Fujiyama A, Kurata N and Tetsuya H (Japan)

Phenotypic characterization, genetic analysis and gene cloning of a heterozygous partial-sterility and segregation distortion mutant in rice

Zhao X, Huang J, Xu C, Li X and Zhang Q (China)

VERDANDI: the first identified target of the MADs box complex STK-SEP3 and its role during fertilization process in *Arabidopsis thaliana*

Mendes MA, Guerra F and Colombo L (Italy)

A new wall-associated receptor-like kinase gene, OsWRL1, play roles in female gametophyte development in rice


T-DNA insertion in a far upstream regulatory region of rice *RFL* gene caused variations in floral organs and leaf color

Chen Y, Lou S, Zhang J and Liu Y (China)

Molecular analysis of partial fertility restorer gene, *Rf2*, for BT-type cytoplasmic male sterile rice

Kazama T, Itabashi E and Toriyama K (Japan and Australia)

Developing the intact technique for the analysis of the molecular mechanisms underlying heterosis of embryo size

Alonso-Peral MM, Groszmann M, Greaves IK, Peacock WJ and Dennis E (Australia)

Fruit development in *Passiflora* spp.

Dornelas MC and Carmello-Guerreiro SM (Brazil)

Identification of novel genes involved in mucilage release and cell wall development in the *Arabidopsis* seed coat

Allen P, Li SF and Parish RW (Australia)

### POSTER SESSION 3

**Hybrids, Hybrid Systems, Imprinting, Fruit, Seed and Stress**

**THURSDAY 16 FEBRUARY, 13:30-14:00**

**P3-48** Molecular analysis of partial fertility restorer gene, *Rf2*, for BT-type cytoplasmic male sterile rice

Kazama T, Itabashi E and Toriyama K (Japan and Australia)

**P3-49** Developing the intact technique for the analysis of the molecular mechanisms underlying heterosis of embryo size

Alonso-Peral MM, Groszmann M, Greaves IK, Peacock WJ and Dennis E (Australia)

**P3-50** Fruit development in *Passiflora* spp.

Dornelas MC and Carmello-Guerreiro SM (Brazil)

**P3-52** Identification of novel genes involved in mucilage release and cell wall development in the *Arabidopsis* seed coat

Allen P, Li SF and Parish RW (Australia)
**POSTER SESSION 3 continued...**

**P3.53** Epigenetic landscapes of *Arabidopsis* gamete expressed genes in non-germline tissues  
Jung CH, Bhalla PL and Singh MB (Australia)

**P3.54** Comparative genomic analysis of allergen encoding genes in brachypodium  
Sharma A, Knight P, Bhalla PL and Singh MB (Australia)

**P3.55** The roles of HLH/bHLH protein dimer involved in grain length and weight in rice  
Heang D and Sassa H (Japan)

**P3.56** Differential expression profiles of cytokinin gene family members and their three homoeologues during leaf and reproductive development in bread wheat  
Song J, Jiang L and Jameson PE (New Zealand and China)

**P3.57** Rice CRINKLY4 receptor-like kinase is required for maintaining interlock of palea and lemma and fertility in rice by promoting epidermal cell specification and mediating vesicle traffic  
Pu C, Ma Y, Wang J, Zhang Y, Sun D and Sun Y (China)

**P3.58** Use of next generation sequencing to profile the barley leaf transcriptome under salt stress  
Kamboj A, Ziemann M and Bhave M (Australia)

**P3.59** RSS1 regulates the cell cycle and maintains meristematic activity under environmental stress conditions in rice  

**P3.60** Lily ASR protein-conferred cold and freezing resistance in *Arabidopsis*  
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**P3.61** *KYJ* gene is required for the meiosis of gametocytes and the DNA repair of somatic cells in rice  
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**P3.62** Effects of soil cadmium and mycorrhizal fungi on the growth, fitness and cadmium accumulation in flax (*Linum usitatissimum*)  
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**P3.63** Reproductive features of two submerged plants in the Hetao region of inner Mongolia, Northern China  
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**P3.64** Identification of wheat QTLs for maintenance of grain number under reproductive stage water stress conditions  
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**P3.65** *In vitro* embryogenesis in flowering plants  
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