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# PROGRAM & ABSTRACTS

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16th International Conference  
on  
*ARABIDOPSIS* RESEARCH

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June 15 – June 19, 2005

University of Wisconsin  
Madison, WI

Throughout this **PROGRAM**, the numbers next to abstracts refer to abstract numbers, not the page number in the **ABSTRACT** part of this book.

## SESSION OVERVIEW

### WEDNESDAY, JUNE 15, 2005

8:00 - 9:30 pm

SESSION A: Cell Biology

### THURSDAY, JUNE 16, 2005

9:00 - 10:30 am

SESSION B: Cell Signaling

11:00 - 12:30 pm

SESSION C: Development 1 - Flower, Fertilization, Fruit, and Seed

2:00 - 3:30 pm

SESSION D: Development 2 - Shoot and Root

4:00 - 5:30 pm

SESSION E: Metabolism

7:00 - 12:00 am

POSTER SESSION I

### FRIDAY, JUNE 17, 2005

9:00 - 10:30 am

SESSION F: Genomics

11:00 - 12:30 pm

SESSION G: Interaction with the Environment 1 - Abiotic

2:00 - 3:30 pm

SESSION H: Interaction with the Environment 2 - Biotic

7:00 - 12:00 am

POSTER SESSION II

### SATURDAY, JUNE 18, 2005

9:00 - 10:30 am

SESSION I: Genetic and Epigenetic Mechanisms

9:00 am - 12:30 pm

AGA SESSION 1: Evolution and Development

11:00 - 12:30 pm

SESSION J: Novel Tools, Techniques and Resources

2:00 - 5:30 pm

SESSION K (Joint with AGA Session 2): Evolutionary Biology

8:00 - 12:00 am

POSTER SESSION III

### SUNDAY, JUNE 19, 2005

9:00 - 10:30 am

SESSION L: 2010

9:00 am - 12:30 pm

AGA SESSION 3: Quantitative Genetics

11:00 - 12:30 pm

SESSION M: NAASC Choices

## Meeting Organizers:

Members of the North American Arabidopsis Steering Committee (NAASC) are serving as the program committee for the 2005 meeting.

**Philip Benfey**, Duke University

**Brenda Winkel-Shirley**, Virginia Tech

**Greg Copenhaver**, University of North Carolina, Chapel Hill

**Rob McClung**, Dartmouth College

**Judith Bender**, Johns Hopkins University

**Xing-Wang Deng**, Yale University

**Bonnie Bartel**, Rice University, Houston, Texas

**Eric Richards**, Washington University, St. Louis

**Isabell Witt**, coordinator for NAASC

The 2005 AGA Symposium, Plant Evolution: Genes and Phenotypes is being organized by **John Doebley**, 2005 President of the AGA.

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## MEETING SPONSORS

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## MEETING EXHIBITORS

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*American Society of Plant Biologists  
Applied Biosystems  
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Union Biometrica, Inc.  
Whatman*

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# NOTES

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# PROGRAM OVERVIEW

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## *Poster schedule*

All posters will remain up for the entire meeting and can be set up Thursday morning beginning at 7 AM. There will be three poster sessions, one Thursday evening, one Friday evening and one Saturday evening. To determine when you should stand next to your poster:

Find your abstract in this book; your poster number is the number it is assigned in this book, NOT the number it was assigned when you originally submitted it.

All posters with EVEN numbers will be presented on Thursday evening.

All posters with ODD numbers will be presented on Friday evening.

Saturday evening's poster session will be a "free-for-all" – plenty of time to look at all posters, or stand by your own if you need more time for discussion,

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## Wednesday, June 15, 2005

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|                             |   |                      |
|-----------------------------|---|----------------------|
| <b>12:00 noon – 7:00 pm</b> | <b>Registration</b>   | <b>Main Lounge</b>   |
| <b>4:00 - 5:30 pm</b>       | <b>WORKSHOPS I</b><br><i>Chair: Rob McClung</i><br><i>Molecular Analysis of the Circadian Clock Mechanism</i>   | <b>Union Theater</b> |
| <b>5:30 - 7:00 pm</b>       | <b>Dinner</b>   | <b>Tripp Commons</b> |
| <b>7:00 - 8:00 pm</b>       | <b>KEYNOTE ADDRESS</b><br><i>Chris Somerville (Carnegie/Stanford)</i><br><i>Energizing Arabidopsis</i>  | <b>Union Theater</b> |
| <b>8:00 - 9:30 pm</b>       | <b>SESSION A:</b><br><i>Cell Biology</i>  | <b>Union Theater</b> |
| <b>8:00 pm</b>              | <b>Kathy Osteryoung, Michigan State University, Session Chair</b><br>Composition and analysis of the chloroplast division machinery                     |                      |
| <b>8:25 pm</b>              | <b>Marisa Otegui, University of Wisconsin</b><br>Prevacuolar compartments as proteolytic processing stations for storage proteins in <i>Arabidopsis</i> |                      |
| <b>8:50 pm</b>              | <b>Tomasz Paciorek, ZMBP Tuebingen, Germany</b><br>Auxin inhibits endocytosis and promotes its own efflux from cells                                    |                      |
| <b>9:10 pm</b>              | <b>Rajagopal Balasubramanian, Clemson University</b><br>A Role for the Actin Cytoskeleton in Hexokinase Mediated Glucose Signaling                      |                      |

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## Thursday, June 16, 2005

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|--------------------------|--|----------------------------|
| <b>7:00 am – all day</b> | <b>Poster set-up</b><br><b>Great Hall/Reception Room (4<sup>th</sup> floor)</b><br>Posters of Orals (not including Session Chairs) (#1 – 60)<br>2010 (#61 – 74)<br>Cell Biology (#75 – 134)<br>Cell Signaling (#135 – 203)<br>Databases and Community Resources (#204 – 216)<br>Development 1: Flower, Fertilization, Fruit, & Seed (#217 – 308)<br>Late Submitted Abstracts: (#660 – 672)<br><b>Old Madison/Beefeaters Room (3<sup>rd</sup> floor)</b><br>Development 2: Shoot and Root (#309 – 388)<br>Evolution and Development (AGA) (#389 – 397)<br>Evolutionary Biology (#398 – 412)<br><b>Tripp Commons (2<sup>nd</sup> floor)</b><br>Genetic and Epigenetic Mechanisms (#413 – 449)<br>Interaction with the Environment 1: Abiotic (#450 – 524)<br>Interaction with the Environment 2: Biotic (#525 – 564)<br><b>Main Lounge (2<sup>nd</sup> floor)</b><br>Interaction with the Environment 2: Biotic (#565 – 582)<br>Metabolism (583 – 618)<br>Novel Tools Techniques and Resources (#619 – 645)<br>Proteomics (#646 – 652)<br>Quantitative Genetics (AGA) (#653 – 659) | <b>See Below Locations</b> |
| <b>7:00 am - 8:00 pm</b> | <b>Registration Continues</b>  | <b>Annex Room</b>          |
| <b>7:45 - 9:00 am</b>    | <b>Breakfast</b>   | <b>Tripp Commons</b>       |
| <b>8:50 - 9:00 am</b>    | <b>Welcome and Announcements</b>   | <b>Union Theater</b>       |
| <b>9:00 - 10:30 am</b>   | <b>SESSION B:</b><br><i>Cell Signaling</i>   | <b>Union Theater</b>       |
| <b>9:00 am</b>           | <b>Sally Assmann, Penn State University, Session Chair</b><br>Signaling by heterotrimeric and extra-large G proteins in <i>Arabidopsis</i> ABA responses   |                            |
| <b>9:25 am</b>           | <b>Kiyotaka Okada, Kyoto University, Japan</b><br>Axis -dependent gene expression in the lateral organ formation   |                            |
| <b>9:50 am</b>           | <b>Li-Sen Young, University of Wisconsin-Madison</b><br>A Mutation in the <i>Arabidopsis</i> ADK1 Gene Affects Root Gravitropism, Columella Morphogenesis and Lateral Auxin Transport Across the Root Tip  |                            |
| <b>10:03 am</b>          | <b>Heather Shearer, McMaster University, Canada</b><br>A lipid transfer protein-like protein, DIR1, is involved in long distance signaling during the development of systemic acquired resistance  |                            |
| <b>10:16 am</b>          | <b>Lynn Hartweck, University of Minnesota</b><br>Identification of O-GlcNAc modification of proteins in several signaling pathways   |                            |
| <b>10:30 - 11:00 am</b>  | <b>Refreshment Break</b>   | <b>Union Theater Lobby</b> |

|                  |  |                            |
|------------------|--|----------------------------|
| 11:00 - 12:30 pm | <b>SESSION C:</b><br><i>Development 1 - flower, fertilization, fruit, and seed</i>   | <b>Union Theater</b>       |
| 11:00 am         | <b>Rick Amasino, University of Wisconsin, Session Chair</b><br>Regulation of Flowering Time and the role of Vernalization  |                            |
| 11:25 am         | <b>George Coupland, Max-Planck Institute for Breeding Research, Germany</b><br>The control of flowering by day length in <i>Arabidopsis</i>  |                            |
| 11:50 am         | <b>Michitaka Notaguchi, Kyoto University, Japan</b><br>Studies on the graft-transmissibility of promotion of flowering by FT in <i>Arabidopsis</i>   |                            |
| 12:03 pm         | <b>Melinka A. Butenko</b><br>INFLORESCENCE DEFICIENT IN ABSCISSION Controls Floral Organ Abscission in <i>Arabidopsis</i>  |                            |
| 12:16 pm         | <b>Moritz Nowack, Max-Planck-Institute for Breeding Research, Germany</b><br>A novel positive signal from the fertilization of the egg cell sets off endosperm proliferation in angiosperm embryogenesis   |                            |
| 12:30 - 2:00 pm  | <b>Lunch</b>   | <b>Tripp Commons</b>       |
| 2:00 - 3:30 pm   | <b>SESSION D:</b><br><i>Development 2 - shoot and root</i>   | <b>Union Theater</b>       |
| 2:00 pm          | <b>Gerd Jürgens, ZMBP University of Tuebingen, Session Chair</b><br>From embryogenesis to the vegetative plant   |                            |
| 2:25 pm          | <b>Doris Wagner, University of Pennsylvania</b><br>Two tales of meristems  |                            |
| 2:50 pm          | <b>Masahiko Furutani, Nara Institute of Science and Technology (NAIST), Japan</b><br>The MACCHI-BOU genes regulate organogenesis together with PINOID  |                            |
| 3:03 pm          | <b>Dana MacGregor, University of Chicago</b><br>Phosphatidylinositol signaling is involved in the regulation of root system architecture   |                            |
| 3:16 pm          | <b>John Chandler, University of Cologne, Germany</b><br>DRN and DRN-LIKE of <i>Arabidopsis</i> redundantly control early embryonic patterning through interactions with class III HD-ZIP proteins  |                            |
| 3:30 - 4:00 pm   | <b>Refreshment Break</b>   | <b>Union Theater Lobby</b> |
| 4:00 - 5:30 pm   | <b>SESSION E:</b><br><i>Metabolism</i>   | <b>Union Theater</b>       |
| 4:00 pm          | <b>Alison Smith, John Innes Centre United Kingdom, Session Chair</b><br>Shedding light on metabolism in the dark   |                            |
| 4:25 pm          | <b>Jorge Vivanco, Colorado State University</b><br>Root Exudation of Antimicrobials Mediates Pathogen Resistance in <i>Arabidopsis</i>   |                            |
| 4:50 pm          | <b>Joost Keurentjes, Wageningen University - Dep. of Genetics, The Netherlands</b><br>High throughput metabolomics for the construction of regulatory networks for plant metabolism  |                            |
| 5:03 pm          | <b>Peter Eastmond, University of York, United Kingdom</b><br><i>Arabidopsis</i> mutants that are defective in seed storage reserve deposition and mobilization: RDM1 encodes the triacylglycerol lipase that catalyses the first step in storage oil breakdown |                            |

5:16 pm

**Indrani Mukherjee, University Of South Carolina**

The FRO3 ferric reductase plays a vital role in iron homeostasis in *Arabidopsis*

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5:30 - 7:00 pm

**Dinner**

**Tripp Commons**

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7:00 - 12:00 am

**POSTER SESSION I**

**See Below Locations**

**Please present (stand by) your poster if your abstract number in this book is EVEN**

**Great Hall/Reception Room (4<sup>th</sup> floor)**

Posters of Orals (not including Session Chairs) (#1 – 60)

2010 (#61 – 74)

Cell Biology (#75 – 134)

Cell Signaling (#135 – 203)

Databases and Community Resources (#204 – 216)

Development 1: Flower, Fertilization, Fruit, & Seed (#217 – 308)

Late Submitted Abstracts: (#660 – 672)

**Old Madison/Beefeaters Room (3<sup>rd</sup> floor)**

Development 2: Shoot and Root (#309 – 388)

Evolution and Development (AGA) (#389 – 397)

Evolutionary Biology (#398 – 412)

**Tripp Commons (2<sup>nd</sup> floor)**

Genetic and Epigenetic Mechanisms (#413 – 449)

Interaction with the Environment 1: Abiotic (#450 – 524)

Interaction with the Environment 2: Biotic (#525 – 564)

**Main Lounge (2<sup>nd</sup> floor)**

Interaction with the Environment 2: Biotic (#565 – 582)

Metabolism (583 – 618)

Novel Tools Techniques and Resources (#619 – 645)

Proteomics (#646 – 652)

Quantitative Genetics (AGA) (#653 – 659)

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**Friday, June 17, 2005**

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7:45 - 9:00 am

**Breakfast**

**Tripp Commons**

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9:00 - 10:30 am

**SESSION F:**

*'omics*

**Union Theater**

9:00 am

**Natasha Raikhel, University of California Riverside, Session Chair**

Exploring Chemical Space in the Plant World

9:30 am

**Sigrun Reumann, Albrecht-von-Haller-Institute for Plant Sciences, Germany**

Studying Novel Plant Peroxisomal Functions by Bioinformatics and Proteomics

9:50 am

**Moshe Reuveni, ARO, Volcani center, Israel**

Studying the plant vacuolar ATPase function through hybrid plant-yeast V-ATPases

10:10 am

**Linda Walling, University of California**

LAPs and DAPs: N-terminal Modifying Enzymes of *Arabidopsis thaliana*



|                  |  |  |
|------------------|--|--|
| 10:30 - 11:00 am | <b>Refreshment Break</b>   | <b>Union Theater Lobby</b>                         |
| 11:00 - 12:30 pm | <b>SESSION G:</b><br><i>Interaction with the Environment 1 - abiotic</i>   | <b>Union Theater</b>                               |
| 11:00 am         | <b>Rob McClung, Dartmouth College, Session Chair</b><br>Abiotic Interactions with the Environment  |  |
| 11:25 am         | <b>Steve Kay, The Scripps Research Institute</b><br>Clocks, photoreceptors and photoperiodism  |  |
| 11:50 am         | <b>David Salt, Purdue University</b><br>Mapping the <i>Arabidopsis</i> ionome  |  |
| 12:03 pm         | <b>Triin Kollist, University of Tartu, Estonia</b><br>What can we learn by monitoring rapid O <sub>3</sub> -induced guard cell responses in <i>Arabidopsis</i> ?   |  |
| 12:16 pm         | <b>Stefanie Maruhnich, University of Florida</b><br>Two Visual Cycle Homologs, Ccd8/Max4 and a Putative Short-Chain Dehydrogenase/Reductase, are Required for Normal Green Light Responses in <i>Arabidopsis thaliana</i>  |  |
| 12:30 - 2:00 pm  | <b>Lunch</b>   | <b>Tripp Commons</b>                               |
| 2:00 - 3:30 pm   | <b>SESSION H:</b><br><i>Interaction with the Environment 2 - biotic</i>  | <b>Union Theater</b>                               |
| 2:00 pm          | <b>Barbara Ann Halkier, RVAU Denmark, Session Chair</b><br>The potential of engineering natural products to improve disease resistance in <i>Arabidopsis thaliana</i>  |  |
| 2:25 pm          | <b>Jane Glazebrook, University of Minnesota</b><br>A Functional Genomics Approach to Disease Resistance Signaling  |  |
| 2:50 pm          | <b>Adam Bahrami, Harvard University</b><br><i>Pseudomonas syringae</i> manipulates systemic plant defenses against pathogens and herbivores  |  |
| 3:10 pm          | <b>Remco Van Poecke, University of Minnesota</b><br>Efficient discovery of regulatory loci in plant defense by exploitation of natural variation   |  |
| 3:30 - 4:00 pm   | <b>Refreshment Break</b>   | <b>Union Theater Lobby</b>                         |
| 4:00 - 5:30 pm   | <b>WORKSHOPS II (Concurrent)</b><br>(a) <b>Natural Variation and Comparative Genomics</b><br><i>Tom Mitchell-Olds</i><br>(b) <b>Getting Databases Talking: Mechanisms to Facilitate Data Integration and Data Mining across the <i>Arabidopsis</i> Community</b><br><i>Christopher Town and Heiko Schoof</i> | <b>Union Theater</b><br><br><b>3650 Humanities</b> |
| 5:30 - 7:00 pm   | <b>Dinner</b>  | <b>Tripp Commons</b>                               |

|                 |   |                            |
|-----------------|---|----------------------------|
| 7:00 - 8:30 pm  | <b>TAIR Introductory Workshop: including info on stock ordering, registration</b> | <b>3650 Humanities</b>     |
| 7:00 - 8:30 pm  | <b>TAIR: Workshop on Microarray Data/Go Annotations</b>                           | <b>1111 Humanities</b>     |
| 7:00 - 12:00 am | <b>POSTER SESSION II</b>  | <b>See Below Locations</b> |

**Please present (stand by) your poster if your abstract number in this book is ODD**

**Great Hall/Reception Room (4<sup>th</sup> floor)**

- Posters of Orals (not including Session Chairs) (#1 – 60)
- 2010 (#61 – 74)
- Cell Biology (#75 – 134)
- Cell Signaling (#135 – 203)
- Databases and Community Resources (#204 – 216)
- Development 1: Flower, Fertilization, Fruit, & Seed (#217 – 308)
- Late Submitted Abstracts: (#660 – 672)

**Old Madison/Beefeaters Room (3<sup>rd</sup> floor)**

- Development 2: Shoot and Root (#309 – 388)
- Evolution and Development (AGA) (#389 – 397)
- Evolutionary Biology (#398 – 412)

**Tripp Commons (2<sup>nd</sup> floor)**

- Genetic and Epigenetic Mechanisms (#413 – 449)
- Interaction with the Environment 1: Abiotic (#450 – 524)
- Interaction with the Environment 2: Biotic (#525 – 564)

**Main Lounge (2<sup>nd</sup> floor)**

- Interaction with the Environment 2: Biotic (#565 – 582)
- Metabolism (583 – 618)
- Novel Tools Techniques and Resources (#619 – 645)
- Proteomics (#646 – 652)
- Quantitative Genetics (AGA) (#653 – 659)

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**Saturday, June 18, 2005**

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|                  |   |                      |
|------------------|---|----------------------|
| 7:00am – 8:00 pm | <b>AGA Registration</b>   | <b>Annex Room</b>    |
| 7:45 - 9:00 am   | <b>Breakfast</b>  | <b>Tripp Commons</b> |
| 9:00 - 10:30 am  | <b>SESSION I:</b><br><i>Genetic and epigenetic mechanisms</i>   | <b>Union Theater</b> |
| 9:00 am          | <b>Daphne Preuss, University of Chicago, Session Chair</b><br>Genetic and Epigenetic Mechanisms   |                      |
| 9:25 am          | <b>Craig Pikaard, University of Washington</b><br>Role of RNA polymerase IV in siRNA-mediated DNA methylation and heterochromatin formation   |                      |
| 9:50 am          | <b>Dmitry Belostotsky, State University of New York at Albany</b><br>Mutational and TAP tag-assisted proteomic analyses and inducible RNA interference reveal the role of the <i>Arabidopsis</i> exosome in embryo/endosperm identity and imprinting, functional specialization of its subunits, and novel RNA substrates |                      |
| 10:10 am         | <b>Renate Schmidt, Max-Planck Institute of Molecular Plant Physiology, Germany</b><br>Monitoring transgene silencing in <i>Arabidopsis</i> - a broadly applicable, non-invasive and sensitive system  |                      |

|                           |   |  |
|---------------------------|---|--|
| <b>9:00 am - 12:30 pm</b> | <b>AGA SESSION 1 (concurrent with Sessions I &amp; J):</b><br><i>Evolution and Development</i><br><b>Christopher Day, University of Wisconsin, Session Chair</b>  | <b>3650 Humanities</b>                     |
| <b>9:00 am</b>            | <b>Vivian Irish, Yale University</b><br>Evolution of MADS box gene function in the angiosperms  |  |
| <b>9:45 am</b>            | <b>David Baum, University of Madison</b><br>The evolution of inflorescence architecture in Brassicaceae   |  |
| <b>11:00 am</b>           | <b>Neelima Sinha, University of California Davis</b><br>Transcription factors, gene expression and leaf evolution   |  |
| <b>11:45 am</b>           | <b>Alexis Maizel, Max-Planck Institute for Developmental Biology, Germany</b><br>Molecular Evolution of LEAFY transcription factor in land plants   |  |
| <b>12:05 pm</b>           | <b>Ji-Young Lee, Duke University</b><br>Evidence of genetic conservation of diverse nectaries within the eudicots   |  |
| <b>10:30 - 11:00 am</b>   | <b>Refreshment Break</b>  | <b>Union Theater Lobby/3650 Humanities</b> |
| <b>11:00 - 12:30 pm</b>   | <b>SESSION J:</b><br><i>Novel Tools, Techniques and Resources</i>   | <b>Union Theater</b>                       |
| <b>11:00 am</b>           | <b>Gregory Copenhaver, University of NC at Chapel Hill, Session Chair</b>   |  |
| <b>11:10 am</b>           | <b>Albrecht von Arnim, University of Tennessee</b><br>In Vivo Protein-Interaction Assays Based on Bioluminescence Resonance Energy Transfer (BRET)  |  |
| <b>11:30 am</b>           | <b>Michael Fromm, University of Nebraska</b><br>Isolation of TAP-tagged Protein Complexes From Plants   |  |
| <b>11:50 am</b>           | <b>Vladimir Shulaev, VBI Virginia-Tech</b><br>Using metabolomics and transcriptomics data to study metabolic networks in <i>Arabidopsis</i>   |  |
| <b>12:10 pm</b>           | <b>Wolfram Weckwerth, Max-Planck Institute of Molecular Plant Physiology, Germany</b><br>Metabolomics and proteomics in <i>Arabidopsis thaliana</i> – transitions from pattern recognition to biological interpretation |  |
| <b>12:30 - 2:00 pm</b>    | <b>Lunch</b>  | <b>Tripp Commons</b>                       |
| <b>2:00 - 5:30 pm</b>     | <b>SESSION K (Joint with AGA Session 2):</b><br><i>Evolutionary Biology</i>   | <b>Union Theater</b>                       |
|                           | <b>David Baum, University of Wisconsin, Session Chair</b>   |  |
| <b>2:00 pm</b>            | <b>Michael Purugganan, North Carolina State University</b><br>Adaptation and variation in <i>Arabidopsis</i> flowering  |  |
| <b>2:45 pm</b>            | <b>Magnus Nordborg, University of Southern California</b><br>Linkage disequilibrium mapping in <i>Arabidopsis</i>   |  |
| <b>3:30 - 4:00 pm</b>     | <b>Refreshment Break</b>  | <b>Union Theater Lobby</b>                 |
| <b>4:00 pm</b>            | <b>Tom Mitchell-Olds, Max-Planck Institute for Chemical Ecology, Germany</b><br>Evolution of ecologically important traits in relatives of <i>Arabidopsis</i>   |  |
| <b>4:45 pm</b>            | <b>Shin-Han Shiu, University of Chicago</b><br>Pronounced Expansion of Transcription Factor Families in Plants  |  |

|                 |  |                            |
|-----------------|--|----------------------------|
| 5:05 pm         | <b>Jocelyn Hall, Harvard University</b><br>Developmental mechanisms underlying fruit diversification in Brassiceae (Brassicaceae)  |                            |
| 5:30 - 7:00 pm  | <b>Dinner</b>  | <b>Tripp Commons</b>       |
| 7:00 - 8:00 pm  | <b>Wilhelmine E. Key Lecture, joint with AGA</b><br><i>June Nasrallah, Cornell</i><br>Mating system evolution in crucifers   | <b>Union Theater</b>       |
| 7:00 - 8:30 pm  | <b>TAIR: Accessing and analyzing information about biochemical pathways</b>  | <b>3650 Humanities</b>     |
| 7:00 - 8:30 pm  | <b>TAIR: Use of Ontologies for Annotating Gene Expression and Phenotypes in <i>Arabidopsis</i></b>   | <b>1111 Humanities</b>     |
| 8:00 - 12:00 am | <b>POSTER SESSION III</b><br><br><b>Free-for-All: A time for further discussions</b><br><b>Great Hall/Reception Room (4<sup>th</sup> floor)</b><br>Posters of Orals (not including Session Chairs) (#1 – 60)<br>2010 (#61 – 74)<br>Cell Biology (#75 – 134)<br>Cell Signaling (#135 – 203)<br>Databases and Community Resources (#204 – 216)<br>Development 1: Flower, Fertilization, Fruit, & Seed (#217 – 308)<br>Late Submitted Abstracts: (#660 – 672)<br><b>Old Madison/Beefeaters Room (3<sup>rd</sup> floor)</b><br>Development 2: Shoot and Root (#309 – 388)<br>Evolution and Development (AGA) (#389 – 397)<br>Evolutionary Biology (#398 – 412)<br><b>Tripp Commons (2<sup>nd</sup> floor)</b><br>Genetic and Epigenetic Mechanisms (#413 – 449)<br>Interaction with the Environment 1: Abiotic (#450 – 524)<br>Interaction with the Environment 2: Biotic (#525 – 564)<br><b>Main Lounge (2<sup>nd</sup> floor)</b><br>Interaction with the Environment 2: Biotic (#565 – 582)<br>Metabolism (583 – 618)<br>Novel Tools Techniques and Resources (#619 – 645)<br>Proteomics (#646 – 652)<br>Quantitative Genetics (AGA) (#653 – 659) | <b>See Below Locations</b> |

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## Sunday, June 19, 2005

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|                 |   |                      |
|-----------------|---|----------------------|
| 7:45 - 9:00 am  | <b>Breakfast</b>  | <b>Tripp Commons</b> |
| 9:00 - 10:30 am | <b>SESSION L:</b><br><i>2010</i>  | <b>Union Theater</b> |
| 9:00 am         | <b>Machi Dilworth, National Science Foundation, Session Chair</b>                                       |                      |
| 9:10 am         | <b>Mary Schuler, University of Illinois Urbana</b><br><i>Arabidopsis</i> cytochrome P450 monooxygenases |                      |

|                    |  |                            |
|--------------------|--|----------------------------|
| 9:30 am            | <b>Richard Vierstra, University of Wisconsin</b><br>Ubiquitin-Protein Ligase (E3) Families   |                            |
| 9:50 am            | <b>Alice Harmon, University of Florida</b><br>The CDPK Superfamily   |                            |
| 10:10 am           | <b>David Meinke, Oklahoma State University</b><br>Indispensable Genes Required for Seed Development in <i>Arabidopsis</i>                                    |                            |
| 9:00 am - 12:30 pm | <b>AGA SESSION 3 (concurrent with Sessions L &amp; M):</b><br><i>Quantitative Genetics</i><br><b>Don Waller, University of Wisconsin, Session Chair</b>      | <b>3650 Humanities</b>     |
| 9:00 am            | <b>Susan McCouch, Cornell University</b><br>Discovery and characterization of alleles associated with domestication-related traits in rice                   |                            |
| 9:45 am            | <b>Jeff Conner, Michigan State University</b><br>The roles of genetic integration and constraint in adaptive evolution: a floral case study                  |                            |
| 11:00 am           | <b>Loren Rieseberg, Indiana University</b><br>The Nature of Intrinsic Postzygotic Isolation  |                            |
| 11:45 am           | <b>Mark Rausher, Duke University</b><br>Identification of a gene causing reproductive isolation in Phlox   |                            |
| 10:30 - 11:00 am   | <b>Refreshment Break</b>   | <b>Union Theater Lobby</b> |
| 11:00 - 12:30 pm   | <b>SESSION M:</b><br><i>NAASC Choices</i>  | <b>Union Theater</b>       |
| 11:00 am           | <b>Susan J. Lolle, Purdue University, Session Chair</b><br>Non-mendelian inheritance of ancestral sequences in <i>Arabidopsis</i> .                          |                            |
| 11:30 am           | <b>Sean May, NASC Nottingham stock center, United Kingdom</b><br>“Asking for Arrays”   |                            |
| 11:50 am           | <b>Cheng Lu, University of Delaware</b><br>Deep profiling by massively parallel signature sequencing elucidates the small RNA component of the transcriptome |                            |
| 12:10 pm           | <b>Pauline Fung, University of Toronto, Canada</b><br>The Pyrabactins: small molecule agonists of the abscisic acid signaling pathway                        |                            |
| 12:30 - 2:00 pm    | <b>Lunch</b>   | <b>Tripp Commons</b>       |