

## 18th International Conference on Arabidopsis Research

Beijing, China June 20-23, 2007



## **Program Overview**

## Poster Schedule

All posters will remain up for the entire meeting and can be set up at No. 102, No. 106 and No. 107 meeting halls, beginning at 2:00 pm June 20<sup>th</sup>, 2007. There will be three poster sessions, one Wednesday evening, one Thursday 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 Wednesday evening.

All posters with ODD numbers will be presented on Thursday 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.

Wednesday, June 20, 2007		
8:00 am – 10:00pm	Registration	1 <sup>st</sup> Floor Lounge
6:00 - 7:30 pm	Welcome Reception	1 <sup>st</sup> Floor Banquet Hall
7:30 - 9:30 pm	Workshops 1	
	(1) Linking Stress Signals to Growth  Deshpal Verma and Hong Ma	2 <sup>nd</sup> Floor No. 88
	(2) Ubiquitination in Plant Development and <i>Qi Xie and Minami Matsui</i>	l Signaling 2 <sup>nd</sup> Floor No.76
	(3) Web services for Arabidopsis Data Integ	
	Tools for Arabidopsis Microarray Databa Chris Town and Anika Joecker	ases 2 <sup>nd</sup> Floor No. 87

7:30 - 9:30 pm POSTER SESSION I

3<sup>rd</sup> Floor No. 102, 106&107

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

	Thursday, June 21, 2007	
8:00 am – 9:30 pm	Posters open all day	3 <sup>rd</sup> Floor No. 102, 106 & 107
8:00 am - 6:00 pm	<b>Registration Continues</b>	1st Floor Lounge

7:00 - 8:30 am	Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist. 1 <sup>st</sup> Floor Banquet Hall For 10 <sup>th</sup> & 12 <sup>th</sup> Dist. Guest: 10 <sup>th</sup> Dist. Hangzhou Restaurant		
8:20 - 8:30 am	Welcome and Announcements 3 <sup>rd</sup> Floor No. 103 &		
8:30 - 10:00 am	PLENARY SESSION 1: Developmental Mechanisms	3 <sup>rd</sup> Floor No. 103 & 105	
	Meyerowitz, California Institute of Technong Ma, Pennsylvania State University, USA		
8:30 am	Elliot Meyerowitz, Chair, California Cellular dynamics in the shoot apical		
9:00 am	,	Ueli Grossniklaus, University of Zürich, Switzerland When partners don't talk: the molecular basis of cell-cell communication during double fertilization	
9:20 am		Wilhelm Gruissem, Institute of Plant Sciences, ETHZ, Switzerland Role of the Arabidopsis retinoblastoma-related (RBR) protein in cell specification	
9:40 am	Jiayang Li, Institute of Genetics and Developmental Biology, China Rice, a model system for studying plant architecture		
10:00 - 10:30 am	Refreshment Break	3 <sup>rd</sup> Floor Lobby	
11:00 - 12:30 pm	PLENARY SESSION 2: Genomics and Genetics	3 <sup>rd</sup> Floor No. 103 & 105	
	ker, The Salk Institute, USA emei Chen, University of California, Rivers	side, USA	
11:00 am	Joe Ecker, Chair, The Salk Institute, USA Mapping genotype into phenotype: natural, induced and epigenetic variation in Arabidopsis genomes		
11:30 am	Maarten Koornneef, Wageningen University, Netherlands The use of Arabidopsis natural variation for gene function analysis		
11:50 am	, and the second	Steve Jacobsen, University of California, Los Angeles, USA Genetics and Genomics of DNA methylation in Arabidopsis	
12:10 pm	Qifa Zhang, Huazhong Agricultural Genetic and molecular characterizatio sterility and wide compatibility in rice	n of inter-subspecific hybrid	

12:00 - 1:30 pm	Lunch	1 <sup>st</sup> Floor Banquet Hall	
1:30 - 3:00 pm	S1 and S3 CONCURRENT SE	ESSIONS:	
S1 Session: Developme Session Chair: Weicai	ental Mechanisms 1 Yang, Institute of Genetics and Develo	3 <sup>rd</sup> Floor No. 103 opmental Biology, China	
1:30 pm	Philip Benfey, Duke University Getting to the root of cell identit		
1:50 pm	· · · · · · · · · · · · · · · · · · ·	Neelima Sinha, University of California, Davis, USA The development and evolution of leaves	
2:10 pm		utes for Biological Sciences, China morphogenesis and BR signaling	
2:30 pm	David Smyth, Monash University Organogenesis of the perianth in dual action of PETAL LOSS and	Arabidopsis flowers is facilitated by the	
2:45 pm	Lynette Brownfield, University Regulatory proteins, DUO1 and cell specification in male germ le	DUO3, link cell cycle progression and	
S3 Session: Genomics Session Chair: Xiaofe	and Genetics 1 ng Cao, Institute of Genetics and Devel	3 <sup>rd</sup> Floor No. 101 opmental Biology, China	
1:30 pm	Christian Hardtke, University Exploiting the natural genetic va accessions, multiple traits	of Lausanne, Switzerland ariation in recombinant inbred lines: two	
1:50 pm	Ko Shimamoto, Nara Institute Florigen in rice	of Science and Technology, Japan	
2:10 pm	Xuemei Chen, University of Ca MicroRNA biogenesis and funct	•	
2:30 pm	Eric Lam, Rutgers University, CHROMATIN CHARTING: Gl epigenetic control mechanisms	m, Rutgers University, USA IATIN CHARTING: Global mapping and characterization of	
2:45 pm	Marco Todesco, Max Planck I QTL analysis of developmental response in Arabidopsis thaliana	trade-offs: plastochron and pathogen	
3:00 - 3:30 pm	Refreshment Break	3 <sup>rd</sup> Floor Lobby	

## 3:30 - 5:00 pm S2 and S4 CONCURRENT SESSIONS:

6:00 - 7:30 pm	Dinner	1 <sup>st</sup> Floor Banquet Hall	
4:45 pm	Rodrigo Gutierrez, P. Universidad Cat Global analysis of the Arabidopsis transc methylation is a key factor that determine	riptome data suggests	
4:30 pm	Joost Keurentjes, Wageningen Univers Regulatory network construction in Arabi gene expression QTLs		
4:10 pm	<b>Bonnie Bartel, Rice University, USA</b> Using Arabidopsis to find new roles for p	peroxins and peroxisomes	
3:50 pm	Peter Shaw, John Innes Center, Norwic The nucleolus is involved in mRNA surve		
3:30 pm	Rob Martienssen, Cold Spring Harbor Second generation Arabidopsis genomics sequencing instruments	• /	
S4 Session: Genomic Session Chair: Zhizl	cs and Genetics 2 hong Gong, China Agricultural University, China	3 <sup>rd</sup> Floor No. 101	
4:45 pm	Annelie Carlsbecker, Uppsala Universi Genetic analysis of the vascular patternin	- ·	
4:30 pm	Elena Caro, Centro de Biología Molecu A chromatin link that couples cell divisio cell fate through epigenetic changes of pa	on to Arabidopsis root epidermis	
4:10 pm	Chuck Gasser, University of California Organ formation and gene expression pat		
3:50 pm	<b>2</b> • ,	George Coupland, Max Planck Institute, Cologne, Germany Transcriptional and post-transcriptional regulation in the control of flowering by photoperiod	
3:30 pm	· · · · · · · · · · · · · · · · · · ·	Kiyotaka Okada, Kyoto University, Japan Axis-dependent gene expression in the lateral organ formation	
	mental Mechanisms 2 n-ming Liu, The Institute of Botany, Chinese Acad	3 <sup>rd</sup> Floor No. 103 lemy of Sciences, China	

Workshops 2
(1) Chemical Genetics

2<sup>nd</sup> Floor No. 78

7:30 - 9:30 pm

Zhenbiao Yang and Sean Cutler

(2) Metabolomics

Mike Beale

(3) Proteomics

Wolfram Weckwerth and Harvey Millar

(4) TAIR (The Arabidopsis Information Resource)

Eva Huala and Donghui Li

2nd Floor No.87

2nd Floor No.88

7:30 - 9:30 pm POSTER SESSION 2

3<sup>rd</sup> Floor No. 102, 106&107

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

	Friday, June 22, 2007	
8:00 am – 9:30pm	Posters open all day	3 <sup>rd</sup> Floor No. 102, 106 & 107
8:00 am - 6:00 pm	<b>Registration Continues</b>	1 <sup>st</sup> Floor Lounge
7:00 - 8:30 am	Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist. 1 <sup>st</sup> Floor Banquet Hall For 10 <sup>th</sup> & 12 <sup>th</sup> Dist. Guest: 10 <sup>th</sup> Dist. Hangzhou Restaurant	
8:30 - 10:00 am	PLENARY SESSION 3: Plant Responses to the Environment	3 <sup>rd</sup> Floor No. 103 & 105

Session Chair: Caroline Dean, The Sainsbury Lab, John Innes Center, UK Session Co-chair: Chentao Lin, University of California, Los Angeles, USA

11:00 - 12:30 pm	PLENARY SESSION 4:	3 <sup>rd</sup> Floor No. 103 & 105
10:00 - 10:30 am	Refreshment Break	3 <sup>rd</sup> Floor Lobby
9:40 am	Javier Paz-Ares, Centro Nacional de Biotecnologia, Madrid, Spain Phosphate Starvation Signaling in Arabidopsis	
9:20 am	Barbara Hohn, Friedrich Miescher Institute, Switzerland Transgenerational memeory of stress in plants	
9:00 am	Kazuo Shinozaki, RIKEN, Japan Regulatory gene network in drough	
8:30 am	Caroline Dean, Chair, The Sainsbury Lab, John Innes Center, UK The molecular basis of vernalization	

Epigenetics and Plant Defense

Session Chair: David Baulcombe, The Sainsbury Lab, John Innes Center, UK

Session Co-chair: Shengyang He, Michigan State University, USA

11:00 am	David Baulcombe, Chair, The Sainsbury Lab, John Innes Center, UK Short silencing RNA networks	
	Short silencing RNA networks	
11:30 am	Ton Bisseling, Wageningen University, The Netherlands Does Rhizobium root nodule symbiosis involve a legume specific toolbox?  Brian Staskawicz, University of California, Berkeley, USA Recognition of pathogen effectors and activation of disease resistance signaling pathways in Arabidopsis thaliana	
11:50 am		
12:10 pm	James Carrington, Oregon State Universitication of Small RNA Pathways	ity, USA
12:00 - 1:30 pm	Lunch	1 <sup>st</sup> Floor Banquet Hall
1:30 - 3:00 pm	S5 and S7 CONCURRENT SESSIONS:	
S5 Session: Responses to the Session Chair: Jianru Zuo, l	e Environment 1 Institute of Genetics and Developmental Biole	3 <sup>rd</sup> Floor No. 103 ogy, CAS, China
1:30 pm	Clark Lagarias, University of California, Functional analysis of dominant GAF-doma Arabidopsis phytochromes in transgenic pla	ain tyrosine mutants of
1:50 pm	Hong Gil Nam, Pohang University of Scie Korea	ence and Technology, South
	Photoreceptor-interacting proteins as immedenvironmental light information processing	
2:10 pm	Sudip Chattopadhyay, National Centre fo India	or Plant Genome Research,
	ZBF3/CAM7 plays an important role as tran Arabidopsis seedling development	nscriptional regulator in
2:30 pm	Paul Dijkwel, University of Groningen, N Mutation of an enzyme involved in the de n early leaf senescence in Arabidopsis thalian	ovo synthesis of NAD causes
2:45 pm	Haiyang Wang, Cornell University, USA Transposase-derived proteins FHY3 and FA modulate phyA signaling homeostasis throu "FHY1" and "FHL" expression	<u> =</u>

3<sup>rd</sup> Floor No. 101

**S7 Session:** Responses to Microbials 1 **Session Chair:** Jianmin Zhou, National Institute of Biological Sciences, China

1:30 pm	Ken Shirasu, RIKEN, Japan HSP90, SGT1, and RAR1 form a ternary chaperor resistance-protein dependent plant immunity	ne complex to regulate
1:50 pm	Roger Innes, Indiana University, USA Molecular mechanisms underlying the activation of	of NBS-LRR proteins
2:10 pm	Ralph Panstruga, Max Planck Institute, Cologne, Germany Durable broad-spectrum powdery mildew resistance in crops and cereals: What can we learn from Arabidopsis?	
2:30 pm	Xin Li, University of British Columbia, Canada MOS7 is essential for plant innate immunity	a
2:45 pm	Sjoerd Van der Ent, Utrecht University, Nether Transcriptional regulators in rhizobacteria-induced	
3:00 - 3:30 pm	Refreshment Break	3 <sup>rd</sup> Floor Lobby
3:30 - 5:00 pm	S6 and S8 CONCURRENT SESSIONS:	
5.50 5.00 pm	bo und bo correction in blobiories	
S6 Session: Responses to the		3 <sup>rd</sup> Floor No. 103
S6 Session: Responses to the	e Environment 2	Switzerland
S6 Session: Responses to the Session Chair: Hongquan Y	Environment 2  Yang, Shanghai Jiao Tong University, China  Klaus Apel, Institute of Plant Sciences, ETHZ,  The genetic basis of singlet oxygen-mediated sign	Switzerland naling of stress Biology, Okazaki,
S6 Session: Responses to the Session Chair: Hongquan Y 3:30 pm	Environment 2 Tang, Shanghai Jiao Tong University, China  Klaus Apel, Institute of Plant Sciences, ETHZ, The genetic basis of singlet oxygen-mediated sign responses  Masamitsu Wada, National Institute for Basic Lapan	Switzerland haling of stress  Biology, Okazaki, hion movement  Diego, USA hents and novel
S6 Session: Responses to the Session Chair: Hongquan Y 3:30 pm 3:50 pm	Tang, Shanghai Jiao Tong University, China  Klaus Apel, Institute of Plant Sciences, ETHZ, The genetic basis of singlet oxygen-mediated sign responses  Masamitsu Wada, National Institute for Basic Japan  Molecular mechanism of chloroplast photorelocat  Julian Schroeder, University of California, San Identification of CO2 and ABA signaling compone	Switzerland haling of stress  Biology, Okazaki, hion movement h Diego, USA hents and novel s  circadian cycling of the

3<sup>rd</sup> Floor No. 101 **S8 Session:** Responses to Microbials 2 **Session Chair:** Daoxin Xie, Tsinghua University, China

3:30 pm	Jane Parker, Max Planck Institute, C Positioning Arabidopsis EDS1 in patho responses	•
3:50 pm	Jonathan Jones, The Sainsbury Lab, Little and large pathogen effectors in pl	
4:10 pm	Shauna Somerville, Carnegie Institut Penetration resistance: the first line of opathogens	
4:30 pm	Shunyuan Xiao, University of Maryla USA Dissection of the signaling pathway of disease resistance	
4:45 pm	Tingting Xiang, National Institute of Pseudomonas syringae effector AvrPto targeting receptor kinases	,
6:00 - 9:30 pm	Conference Dinner Traditional Chinese Show	1 <sup>st</sup> Floor Banquet Hall
	G	
	Saturday, June 23, 2007	
8:00 am – 9:30pm	Posters open all day	3 <sup>rd</sup> Floor No. 102, 106&107
8:00 am - 9:30pm 8:00 am - 6:00 pm	<u> </u>	3 <sup>rd</sup> Floor No. 102, 106&107  1 <sup>st</sup> Floor Lounge
- -	Posters open all day	1 <sup>st</sup> Floor Lounge t. 1 <sup>st</sup> Floor Banquet Hall
8:00 am - 6:00 pm	Posters open all day  Registration Continues  Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist	1 <sup>st</sup> Floor Lounge t. 1 <sup>st</sup> Floor Banquet Hall
8:00 am - 6:00 pm  7:00 - 8:30 am  8:30 - 10:00 am  Session Chair: Mark Este	Posters open all day  Registration Continues  Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist. For 10 <sup>th</sup> & 12 <sup>th</sup> Dist. Guest: 10 <sup>th</sup> Dist.  PLENARY SESSION 5:	1 <sup>st</sup> Floor Lounge  t. 1 <sup>st</sup> Floor Banquet Hall Hangzhou Restaurant  3 <sup>rd</sup> Floor No. 103 & 105
8:00 am - 6:00 pm  7:00 - 8:30 am  8:30 - 10:00 am  Session Chair: Mark Este	Posters open all day  Registration Continues  Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist For 10 <sup>th</sup> & 12 <sup>th</sup> Dist. Guest: 10 <sup>th</sup> Dist.  PLENARY SESSION 5: Signal Transduction/Cell Biology  lle, Indiana University, USA	1 <sup>st</sup> Floor Lounge  t. 1 <sup>st</sup> Floor Banquet Hall Hangzhou Restaurant  3 <sup>rd</sup> Floor No. 103 & 105  pmental Biology, CAS, China sity, USA
8:00 am - 6:00 pm  7:00 - 8:30 am  8:30 - 10:00 am  Session Chair: Mark Este Session Co-chair: Yongba	Posters open all day  Registration Continues  Breakfast at Hotels For 15 <sup>th</sup> & 16 <sup>th</sup> Dist. Guests: 16 <sup>th</sup> Dist. For 10 <sup>th</sup> & 12 <sup>th</sup> Dist. Guest: 10 <sup>th</sup> Dist.  PLENARY SESSION 5: Signal Transduction/Cell Biology  lle, Indiana University, USA o Xue, Institute of Genetics and Develoged Mark Estelle, Chair, Indiana University Genetic and biochemical studies of the	1st Floor Lounge  t. 1st Floor Banquet Hall Hangzhou Restaurant  3rd Floor No. 103 & 105  pmental Biology, CAS, China sity, USA auxin receptor reveal a novel

9:40 am	Yongbiao Xue, Institute of Genetics and Developmental Biology, CAS, China Molecular control of S-RNase-based self-incompatibility		
10:00 - 10:30 am	Refreshment Break	3 <sup>rd</sup> Floor Lobby	
10:30 - 11:35 am	PLENARY SESSION 6: Metabolism/Bioenergy	3 <sup>rd</sup> Floor No. 103 & 105	
Session Chair: Xinnian De	ong, Duke University, USA		
10:30 am	Clint Chapple, Purdue University, USA Looking beyond Arabidopsis and angios improvement genes		
10:55 am	Metabolic engineering of terpene biosynt	Harro Bouwmeester, Plant Research International, Netherlands Metabolic engineering of terpene biosynthesis in Arabidopsis and consequences for plant-environment communication	
11:15 am	Geoffrey Fincher, University of Adelaide, Australia Recent advances in plant cell wall biology		
12:00 - 1:30 pm	Lunch	1 <sup>st</sup> Floor Banquet Hall	
1:30 - 3:00 pm	S9 and S11 CONCURRENT SESSION	NS:	
S9 Session: Signal Transdu Session Chair: Yuxian Zhu		3 <sup>rd</sup> Floor No. 103	
1:30 pm	Makoto Matsuoka, Nagoya University GIBBERELLIN INSENSITIVE DWAR receptor in rice	_	
1:50 pm	Tatsuo Kakimoto, Osaka University, J Secretory peptides that regulate stomatal		
2:10 pm	Ligeng Ma, National Institute of Biological Sciences, China Heterotrimeric G proteins and ABA signaling in Arabidopsis		
2:30 pm	Pradeep Kachroo, University of Kentu Plastidial oleiclevels modulate defense si expression of resistance genes		
2:45 pm	Wolfgang Droge-Laser, University of C The C/S1 network of bZIP transcription is developmentally and stress regulated trans	factors: combinatorial control of	

3<sup>rd</sup> Floor No. 101 **S11 Session:** *Metabolism/Hormonal Responses* Session Chair: Chong Kang, Institute of Botany, CAS, China 1:30 pm Ken Feldmann, Ceres Inc., USA A high throughput over-expression pipeline in Arabidopsis to discover genes important in phytohormone biosynthesis and regulation 1:50 pm Mary Lou Guerinot, Dartmouth University, USA Metals, mutants and mayhem Tai-Ping Sun, Duke University, USA 2:10 pm Early events in gibberellin signaling 2:30 pm Jane Ward, National Centre for Plant & Microbial Metabolomics. Metabolites in Motion – tracking the dynamic metabolome with 1H **NMR** 2:45 pm Joshua Gendron, The Carnegie Institution, Stanford Univ., USA Brassinosteroids regulate organ boundary formation and organ separation in Arabidopsis 3<sup>rd</sup> Floor Lobby 3:00 - 3:30 pm **Refreshment Break** 3:30 - 5:00 pm **S10 and S12 CONCURRENT SESSIONS:** 3<sup>rd</sup> Floor No. 103 **S10 Session:** Cell Biology Session Chair: Lijia Qu, Peking University, China Bill Lucas, University of California, Davis, USA 3:30 pm Plasmodesmata: pathways for intercellular trafficking of macromolecules 3:50 pm David Ehrhardt, The Carnegie Institution, Stanford Univ., USA A dynamic scaffold: cytoskeletal organization of cellulose synthase Richard Vierstra, University of Madison, Wisconsin, USA 4:10 pm Control of Arabidopsis hormone signaling by the ubiquitin/26S

S12 Session: Developmental Mechanisms 3

3<sup>rd</sup> Floor No. 101

**Takashi Ueda, University of Tokyo, Japan** Plant evolves a unique mechanism of endocytosis

Masaaki Umeda, Nara Institute of Science and Technology, Japan B2-type cyclin-dependent kinase is controlled by protein degradation

Session Chair: Hai Huang, Institute of Plant Physiology & Ecology, SIBS, CAS, China

proteasome system

4:30 pm

4:45 pm

	End of Conference		
7:30 -9:30pm	POSTER SESSION 3	3 <sup>rd</sup> Floor No. 102, 106&107	
7:30 - 9:30 pm	Workshops 3 (1) Peptide Signal Transduction in Plants Chun-Ming Liu and Rüdiger Simon	2 <sup>nd</sup> Floor No.87	
6:00 - 7:30 pm	Dinner	1 <sup>st</sup> Floor Banquet Hall	
4:45 pm		<b>Stephan Wenkel, Carnegie Institution, Stanford Univ., USA</b> Feedback control of leaf polarity by a family of small leucine zipper proteins	
4:30 pm		Mengjuan Guo, Cold Spring Harbor Laboratory, USA Molecular mechanism of KNOX gene repression by the Arabidopsis ASYMMETRIC LEAVES1 complex	
4:10 pm	, ,	<b>Judy Callis, University of California, Davis, USA</b> RING-type ubiquitin E3 ligase family in Arabidopsis thaliana	
3:50 pm	· · · · · · · · · · · · · · · · · · ·	Ben Scheres, Utrecht University, Netherlands Stem cell and meristem action in Arabidopsis: a numbers game?	
3:30 pm	John Schiefelbein, University of Michigan, USA Cell patterning in the Arabidopsis root epidermis		