

# Plant Genomes: From Sequence to Phenome

## KEYNOTE SPEAKERS

THURSDAY 12/9/2004, 7:30 PM

Claire Fraser, The Institute for Genomic Research  
Joseph Ecker, Salk Institute

## Session 1 REGULATORY NETWORKS AND GENE EXPRESSION

FRIDAY 12/10/2004, 9:00 AM

E. Meyerowitz

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
1	Meyerowitz	New approaches to the shoot apical meristem	25
2	Benfey	A systems approach to understanding root development	25
3	Ideker	Complex biological queries on the protein interaction network	25
4	Gutierrez	<i>Arabidopsis</i> gene networks regulated by interactions between C and N	15
5	Moseyko	Global analysis of the transcriptome of <i>A. thaliana</i>	15
6	Fedoroff	Signaling and gene expression in the <i>Arabidopsis</i> oxidative stress response	15

## Session 2 PROTEOMICS

FRIDAY 12/10/2004, 2:00 PM

B. Chait

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
7	Chait	A focused proteomic approach for dissecting cellular function	25
8	Van Wijk	Chloroplast proteomes of C3 and C4 plants—Expression profiling, protein interactions, properties and functions in maize and <i>A. thaliana</i>	25
9	Fromm		25
10	Popescu	Towards development of <i>Arabidopsis</i> protein chips	10
11	Mohanty	Towards characterization of the <i>Arabidopsis</i> , maize and rice proteomes by native expression of tagged full-length proteins	10

## Session 3 POSTER SESSION AND WINE & CHEESE PARTY

FRIDAY 12/10/2004, 4:00 PM

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
12	Abad	Approaches to chilling tolerance in maize	
13	Balija	The rice genome—Experimental examination of the 5' end annotation of genes in the rice genome	
14	Bazar	Chromosome research of the genome and the primary structure of DNA by examples of crop plants, <i>Arabidopsis</i> and rice	
15	Morgante	Recent insertions of transposable elements are responsible for DNA sequence non-homologies among maize inbreds	
16	Wortman	Annotation of the rice genome at TIGR	

17	Buzas	Genetic interactions between a <i>CLAVATA1</i> ortholog, an ethylene receptor and two non-coding RNAs involved in legume nodulation
18	Cloutier	Organization of the wheat genome at the HA and Glu-1 loci
19	de la Torre	Seed plant phylogenomics—Insights from multigene analyses of EST and genomic
20	Dong	Plant genome database and analysis tools
21	Du	Comparative sequence analysis of long terminal repeat (LTR) retrotransposons from orthologous regions of the maize, sorghum and rice genomes
22	Fujino	An active transposon found in the novel <i>albino</i> mutant in rice
23	Gopalan	ResurfP—A response surface aided parametric test for identifying differentials in experiments involving multiple independent measurements of a parameter
24	Gopalan	Proportional difference evaluation of the null hypothesis with applicability in experiments with high stochasticity and small number of replicates
25	Gunawardana	Diversity of Nudix hydrolases in plants
26	Hall	Multi-species analysis of centromere regions in the Brassicaceae family
27	Hamann	Analysis of cell wall signaling in <i>Arabidopsis</i> using expression profiling
28	Hayden	Conservation of upstream open reading frames between rice and <i>Arabidopsis</i> —Putative mediators of gene regulation in the 5'UTR
29	Illing	Evolution of desiccation tolerance in the resurrection plant <i>X. humilis</i>
30	Jin	Chromosomal localization of BAC clones on in silico chromosome 1 of <i>B. rapa</i> using SSR markers
31	Katushynska	Translational polymorphism and its contribution to eukaryote proteome
32	Kerboul	Meta-analysis of large data sets from microarray experiments
33	Kim	The <i>Oryza</i> map alignment project—The golden path to unlocking the genetics potential of wild rice species
34	Kim	Characterization of <i>flowering locus C (FLC)</i> in <i>B. rapa</i>
35	Kim	Prospects and status of <i>B. rapa</i> chromosome 1 sequencing
36	Kondou	Fox hunting system—A novel gain-of-function gene-hunting technique
37	Machova Polakova	SNP in barley $\alpha$ -amylase and $\beta$ -amylase genes affecting grain quality
38	Oono	<i>Arabidopsis</i> functional genomics in the recovery process from drought and cold
39	Becker	A genomic view of the commitment to cell growth, cell division control and regulation of gene expression in <i>Arabidopsis</i> pollen
40	Pozolotina	Phenogenetical peculiarities of the <i>T. officinale</i> s.l. coenopopulations from the zone of East-Ural Radioactive Trace
41	Rensink	Transcriptome analysis of Solanaceae species

42	Robbins	Functional genomics of plant RNA-binding proteins
43	Rosso	The GABI-Kat <i>A. thaliana</i> T-DNA mutagenized population for flanking sequence tag-based reverse genetics
44	Seki	Functional genomics using RIKEN <i>Arabidopsis</i> full-length (RAFL) cDNAs
45	Sharma	Ectopic expression of the Myb and Myc transcription factors for modulation of condensed tannin biosynthesis
46	Sorokivska	The effect of blue light in <i>Arabidopsis</i> growth regulation and hormone balance
47	Rounsley	Modeling assembly of the maize genome
48	van der Knaap	Genome structure analysis of the tomato fruit shape locus <i>sun</i>
49	Warthmann	Explorative shotgun sequencing of <i>A. alpina</i> L.
50	Wu	AtERF4 is a transcriptional repressor in ethylene and abscisic acid responsive
51	Datla	Gene expression patterns in embryo development of <i>B. napus</i> and <i>Arabidopsis</i>
52	Yoshizumi	Gene trapping of the <i>Arabidopsis</i> genome with a firefly luciferase reporter
53	Zhan	Expression patterns of neighboring genes in the genome of <i>A. thaliana</i>
54	Zheng	Comparison of the performance of commonly used assemblers in assembling the maize BACs
55	DeLong	Disparate roles for the regulatory A subunit isoforms in <i>Arabidopsis</i> protein phosphatase 2A

#### Session 4 PHENOMICS

FRIDAY 12/10/2004, 7:30 PM

	C. Boone		
<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
56	Boone	Global mapping of synthetic genetic interactions in yeast	25
57	Martienssen	Transposons, RNA interference and the epigenetics landscape of the plant genome	25
58	Piano	<i>C. elegans</i> early embryogenesis as a model to bridge the genome and the	25
59	Dinesh-Kumar	Applications and advantages of virus-induced gene silencing (VIGS) for gene function studies in plants	15
60	Kuromori	Systematic collection of homozygous transposon-tagged lines for phenome analysis in <i>Arabidopsis</i>	12

#### Session 5 GENOME ORGANIZATION AND EVOLUTION

SATURDAY 12/11/2004, 9:00 AM

	S. Dutcher		
<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
61	Dutcher	Comparative genomics with plant, algae and animal proteomes to probe gene	25

62	Irish	Comparative genomics of angiosperm MADS box genes	25
63	Borevitz	High resolution variation scanning in <i>A. thaliana</i> using array genotyping	25
64	Birnbaum	Comparative genomics of cellular differentiation	15
65	Banks	The <i>S. moellendorffii</i> genome—A compact and ancient land plant genome	15
66	Brenner	Genomic studies in the basal gymnosperms	15

**Session 6 NEW GENOMES AND ELEMENTS**

SATURDAY 12/11/2004, 1:15 PM

D. Weigel

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
67	Weigel	Specific effects of microRNAs on the plant transcriptome	25
68	Green	Deep profiling of small RNAs by MPSS	25
69	Bevan	Analysis and interpretation of promoter function in <i>Arabidopsis</i> using machine learning methods	10
70	Rabinowicz	What the Consortium for Maize Genomics learned about the maize genome and the challenges ahead	10
71	Radovic	<i>cis</i> -acting regulatory variation affecting maize gene expression	10
72	Li	Analyses of rice chromosome 10 protein-coding gene models using integrative approaches centered on tiling-path microarray	10

**Session 7 WORKSHOP: RESOURCES AND NEW TECHNOLOGY**

SATURDAY 12/11/2004, 3:30 PM

J. Ecker

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
	Introduction by J. Ecker	“FUTURE”: Daphne Preuss, Mike Snyder	
73	Coughlan	A comparison of global gene expression and MPSS profiling in <i>A. thaliana</i>	7
74	Scholl	Resources at ABRC in the post-genomic era	7
75	Chan	Consortium for maize genomics—Assembly of the filtered maize genome	7

**KEYNOTE SPEAKER**

SATURDAY 12/11/2004, 5:30 PM

Mark Johnston, Washington University School of Medicine

**Session 8 GENOMICS APPROACHES TO SMALL MOLECULES**

SUNDAY 12/12/2004, 9:00 AM

N. Raikhel

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
76	Raikhel	The power of chemical genomics to discover proteins that mediate endomembrane trafficking in plants	25
77	Stitt	From genes to metabolites—Multilevel genomics analysis of carbon-nitrogen	25
78	Briggs	A genetic network in <i>Arabidopsis</i>	25
79	Gong	Ionomics and microarray-based rapid mapping of mutant genes	15