## Advances in Arachis through Genomics & Biotechnology-2013

### **TENTATIVE PROGRAM**

	Monday, 17 June 2013	
08:30 – 12:00	Registration and Poster Setup	
10:00 – 12:00	International Peanut Genome Consortium (PGC)	H. Valentine/R. Wilson
12:00 – 14:00	Lunch View posters	

14:00 - 18:00

### Session I: Inauguration

Chairpersons: Xinyou Zhang (China), Howard Valentine(USA)

17:20 - 17:30	Group Picture	weiping Fang/Local Committ
17:10 – 17:20 17:20 –17:30	AAGB-2013 Technical Program Highlights AAGB-2013 Social Program Highlights	Tom Stalker/Secretary Weiping Fang/Local Committ
16:40 – 17:10	Special Session/Award	T. Stalker/B. Guo
16:10 – 16:40	Key Note Address	Howard Shapiro
16:00 – 16:10	Introduction of Key Note Speaker	X. Zhang
15:30 – 16:00	Tea/Coffee Break (30min)	
	The Path to the Arachis Genome Sequence	Victor Nwosu
	Provencial Government Official	
	Government Official (Beijing)	
	Howard Valentine	Executive Director, Peanut Foundaton
	David Hoisington	Deputy Director General- Research, ICRISAT
	Fuhe Luo	Vice Chairman, CPPCC
	Inaugural Address – Wanjie Ma, President HAAS & Chief Patron AAG	B–2013
14:00 – 15:30	Welcome – Xinyou Zhang, HAAS, Chair AAGB-2013	

Session IIa: The Peanut Genome Project

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8:30 – 8:50	The peanut genome project and consortium	Scott Jackson	1
8:50 – 9:10	Genome mapping by sequencing of the progenitors of the cultivated peanut, <i>Arachis duranensis</i> and <i>A. ipaensis</i>	Lutz Froenicke	2
9:10 – 9:30	Progress report of Peanut Genome Sequence Project: Constructing the genome sequence of <i>Arachis</i> species	Xin Liu	3
9:30 – 9:50	Functional genomic resources in peanut	Peggy Ozias-Akins	4
9:50 – 10:10	A first look at the "Peanut Genomic Toolbox"	Steve Cannon	5
10:10 – 10:40	Tea/Coffee Break (30min) View Posters		

#### Session IIb: The Peanut Genome Project

12:20 – 14:00	Lunch view posters		
12:00 – 12:20	Progress in sequencing the cultivated peanut A-genome progenitor Arachis duranensis	Shanlin Yu	10
11:40 – 12:00	Ongoing efforts and future plans for phenotyping to complement genomic advances in peanut	Corley Holbrook	9
11:20 – 11:40	Genomics-assisted breeding in peanut ( <i>Arachis hypogaea</i> L.): present status and future prospects	Rajeev Varshney	8
11:00 – 11:20	Transcriptome analysis in an array of cultivated and wild peanut accessions using illumina sequencing	Mark Burow	7
10:40 – 11:00	Strategies for de novo assembling complex genomes	Xiaodong Fang	6

Chairpersons: Shanlin Yu (China) and David Hoisington (ICRISAT)

#### Session III: Allelic Diversity & Germplasm Resources

Chairperson: Boshou Liao (China) and Brian Scheffler (USA)

14:00 - 14:20	Why preserve and evaluate genetic resources in peanut?	Noelle Barkley	11
14:20 – 14:40	Arachis duranensis, the A genome donor of the cultivated peanut	Tom Stalker	12
14:40 – 15:00	Genetic variation of purified U.S. peanut (Arachis hypogaea L.) mini- core collection	Charles Chen	13
15:00 – 15:20	Germplasm for Groundnut Improvement	Hari Upadhyaya	14
15:20 – 15:40	The developmental transcriptome of peanut (Arachis hypogaea) pod	Xiaoping Chen	15

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15:40 - 16:10	Tea/Coffee Break (30min) View Posters

### Session IVa: Genetic Trait Mapping & Gene Discovery

Chairpersons: Xingjun Wang (China) and Rajeev Varshney (India)

19:00 – 21:30	Dinner View Posters		
17:30 – 17:50	Construction and analysis of a SNP-based genetic linkage map in peanut ( <i>Arachis hypogaea</i> L.)	Xiaojing Zhou	20
17:10 – 17:30	Revisiting T-population derived from Tifrunner x GT-C20 for achieving high density genetic maps and detecting disease resistance QTLs in peanut ( <i>Arachis hypogaea</i> L. )	Baozhu Guo	19
16:50 – 17:10	QTL analysis and consensus genetic map for yield $, $ quality based on three RIL and two F <sub>2</sub> populations of cultivated groundnut ( <i>Arachis hypogaea</i> L.)	Xinyou Zhang	18
16:30 – 16:50	The incorporation of SNP markers into diploid and tetraploid peanut maps	David Bertioli	17
16:10 – 16:30	Using deep sequencing technology and bulked segregant analysis to identify candidate genes for branching habit in peanut	Y. Brand	16

### Wednesday, 19 June 2013

#### Session IVb: Genetic Trait Mapping & Gene Discovery

Chairpersons: Xunqiang Liang (China) and David Bertioli (Brazil)

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8:30 - 8:50	Transcriptome and proteome profiling of peanut (Arachis hypogaea L.) gynophores response to early geotropism	Haifeng Li	21
8:50 – 9:10	Identification and pathogen indiction of miroRNAs in wild type and cultivated peanut	Xingjun Wang	22
9:10 – 9:30	Marker-assisted introgression of major QTL showed high resistance to leaf rust in the genetic background of elite peanut cultivars ( <i>Arachis hypogaea</i> L.)	Manish Pandey	23
9:30 – 9:50	Molecular cloning of an annexin gene and expression analysis under different stresses in peanut ( <i>Arachis hypogaea</i> L.)	Meijing He	24
9:50 – 10:10	Dissection of TOR signalling network in peanut	Maozhi Ren	25

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### Session V: Product Quality & Safety

Chairpersons: Qiang Wang (China) and Victor Nwosu (USA)

12:20 – 14:00	Lunch View Posters		
12:00 – 12:20	Study on Processing Characteristics and Quality Evaluation of Peanut	Hongzhi Liu	30
11:40 – 12:00	Using peanut information network system (PINS) as an online tool for peanut research	Y-C Hung	29
11:20 – 11:40	Identification of quantitative trait loci for phenolics, flavonoids and DPPH radical scavenging activity in cultivated peanut ( <i>Arachis hypogaea</i> L.)	Suvendu Mondal	28
11:00 – 11:20	The inhibitory effect of <i>Bacillus megaterium</i> on aflatoxin biosynthetic pathway gene expression in Aspergillus flavus	Qing Kong	27
10:40 – 11:00	Identification of resistance genes to Aspergillus flavus infection inpeanut through genetic and genomic strategies	Jiujiang Yu	26

#### Session VIa: Crop Improvement

Chairpersons: Zhuang Weijian (China) and Corley Holbrook (USA)

14:00 – 14:20	Peanut genetic enhancement through pre-breeding and genomics	Shivali Sharma	31
14:20 – 14:40	Can wild relative improve drought related traits on peanut?	S. Leal-Bertioli	32
14:40 – 15:00	Genetic and genomic research for enhanced oil content in peanut	Boshou Liao	33
15:00 – 15:20	Bulked segregant analysis (BSA) to rapidly identify restriction-site associated DNA (RAD) resistance in groundnut	Guohao He	34
15:20 – 15:40	Identification of peanut chromosomes by sequential FISH	Pei Du	35
15:40 – 16:10	Tea/Coffee Break (30min) View Posters		

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### **TENTATIVE PROGRAM**

### Session VIb: Crop Improvement

	Thursday, 20 June 2013		
	1		
19:00 – 21:30	Dinner view posters		
17:30 – 17:50	Integrated molecular breeding for enhanced resistance to diseases and quality parameters in peanut	P. Janila	4
17:10 – 17:30	Acceleration of peanut breeding programs by molecular marker assisted selection	Y. Chu	3
16:50 – 17:10	Regulation of calcium on the development of peanut (Arachis hypogaea L.) pods	Xinguo Li	3
16:30 – 16:50	Germplasm lines with biotic and abiotic stress resistances derived from <i>Arachis cardenasii</i> Krapov. & W.C. Gregory for peanut improvement	S. Tallury	3
16:10 - 16:30	Digital gene expression profiling of genes related to peanut root-knot nematode resistance	Mei Yuan	3
	Chairpersons: Yongshan Wang (China) and Hari Upadhyaya (India)		

# Session VII: Educational Tour

#### Chairpersons: Fengshou Tang (HAAS), Bingyan Huang (HAAS),

Visit Henan Academy of Agricultural Sciences Exp Stat	Wenzhao Dong/Suoyi Han,
Lunch View posters	

### Breakout Session VIII: Program Assessment and Update

14:00 – 14:15	Peanut Genomics Research Program Evaluation: Updating Research Priorities, Milestones and Budget Needs	Rich Wilson
14:15 – 17:15	Group I: Allelic Diversity & Germplasm Resources	B. Liao/N. Barkley

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### **TENTATIVE PROGRAM**

	Group II: Genome Sequencing & Structural Characterization	X. Wang/S. Jackson
	Group III: Genetic Trait Mapping and Gene Discovery	X. Liang/P. Ozias-Akins
	Group IV: Crop Quality & Safety	Q. Wang/Victor Nwosu
	Group V: Crop Improvement	X. Zhang/C. C. Holbrook
17:15 -18:15	Group Reports to General Assembly	
18:15 - 18:25	Wrap-up and Next Steps	Rich Wilson
19:00 – 21:00	Closing Ceremony and Dinner	X. Zhang/H. Valentine
21:00 – 23:00	Optional Social Event	-

Friday, 21 June 2013
Field Trip/Sightseeing (Luoyang and Shaolin)

Longmen Grottoes, White Horse Temple, and Shaolin Temple

Evening Show at Shaolin Temple

Posters