## Minutes v2

# International Peanut Genome Initiative Meeting (IPGI) Cordoba, Argentina; 12 March 2017

#### **PARTICIPANTS**

Steve Brown	David Bertioli	Bob Parker	Shihua Shan
Scott Jackson	Soraya Bertioli	Alicia Massa	Mei Yuan
Kelly Chamberlin	Dan Ward	Guillermo Seijo	Manish Pandey
Charles Chen	David Hoisington	Daniel Fonseka	Ana Guerra
Baozhu Guo	Victor Nwosu	Xingjun Wang	Roy Scott
Corley Holbrook	Tom Stalker	Rebecca Bennett	Kim Moore
Peggy Ozias-Akins	Josh Clevenger	Shyam Tallury	

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Representation in absentia via proxy or via teleconference:

Jeremy Schmutz-tele Jerry Jenkins-tele

Jackson convened the meeting. A quorum was established. Minutes-v1 (5 December 2016) from Washington, DC was approved. A modified meeting Agenda was approved.

# **PGI Membership**

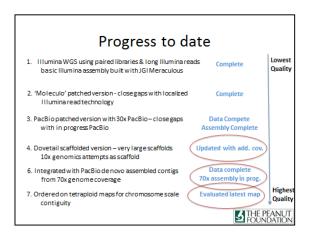
Wilson reported results of the IPGI Chairperson election for 2017. The ballot carried Scott Jackson (chair) and Peggy Ozias-Akins, Corley Holbrook, David Bertioli (for two co-chair positions). Voting was extended until January 31, 2017. Although winners could be declared, only one vote separated two of the co-chair candidates. Wilson moved the IPGI rules be suspended to elect all four candidates for 2017. The motion was seconded by Josh Clevenger. During discussion, all candidates supported the motion. Motion passed unanimously.

Nominations were accepted for three new members: Shyam Tallury, Manish Pandey and Alicia Massa. Each candidate will submit a vita and picture to Wilson at earliest convenience. Wilson will distribute an electronic ballot to determine member support for these candidates.

Changes in the current IPGI membership were adopted to maintain a total of 30 IPGI members. Richard Wilson, Howard Valentine, and Xin Liu were approved for Ex Officio status. Xun Xu was removed from Ex Officio status. Pending acceptance of invitation, Walter Robledo (Minister, Science & Technology, Cordoba, Argentina) will be granted Ex Officio status. There were no additional motions for changes in current PGI membership or nominations of new members. However, Dr. Trilochan Mohapatra is now Secretary DARE & Director General ICAR, but T. Radhakrishnan retains Ex Officio status.

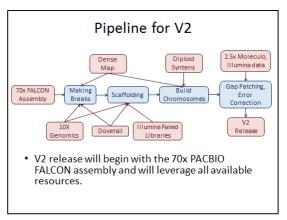
# Progress on Hudson-Alpha project

Schmutz reported progress on assembly of the tetraploid reference genome. The PacBio 30X assembly has been completed. Scaffolds from the DoveTail (DT) HiRise assembler showed an elevated number of false joins of A and B genome sequences. This problem may be resolved with greater coverage and improvements in DT algorithms for tetraploid scaffold assembly. DT assemblies will not be directly integrated at this time, but will be used to help validate the V1 chromosome scale assembly of the Tifrunner reference genome. Increased genome coverage (76.74X) with PacBio is near completion; average read length was 9,784 bp. The median of the scaffold distribution was in the 250 to 500 kb range. 10X



Genomics libraries aligned to the Falcon (46X) assembly identified 3190 precise breaks that distinguish A and B genome sequences with high confidence.

Jenkins reported on alignment of the Falcon assembly with 3000 markers to the Tifrunner x GTC20 genetic map provided by Clevenger. The alignment is progressing from 36% to 56% completion. Clevenger will send Jenkins up to 8000 more validated SNP markers to enhance map density.



Next steps initiate implementation of the V2 pipeline based on the PacBio 70X Falcon assembly. All other resources including DT and 10X Genetics assemblies and Illumina reads will be leveraged in an integrated genome build to correct deletion errors/false joins, re-evaluate A/B genome translocations and validate A/B genome breaks. Completion of this build is expected in April and will be released for evaluation by PGC. Pending PGC response, the final V2 assembly is expected in May 2017.

D. Bertioli mentioned a separate project to improve contiguity in diploid assemblies with DT HighRise. Work is in progress, pending delivery of DNA to DT.

## **Other Reports**

Wilson reported that Elsevier Academic Press has placed the book; Peanuts: Genetics, Processing & Utilization on their best seller list for 2016. Thanks were extended to APRES and the American Oil Chemists' Society for promoting book sales and distribution.

Brown reported on implementation of The Peanut Foundation research agreements. Most have been released. Minor difficulties remain to be resolved with a few Universities and the National Peanut Board.

Brown and Parker commented on recent awards from the initial partnership between the NPB, TPF and NIFA. Three projects have been approved for this program

Stalker and Seijo reported on status and changes in the technical and social programs for AAGB-2017. Wilson announced details and distributed worksheets for evaluating the AAGB Poster Competition (Clevenger, Stalker, Hoisington, Massa, Kim Moore volunteered to judge entries). Wilson also announced recipients of the IPGI Distinguished Leadership & Contribution Awards (Rajeev Varshney; Richard Michelmore & Lutz Froenicke).

Subsequent Report by Wilson: Winners of AAGB Poster Competition were: <u>Andressa Quintana</u>. Shifts on genomic organization of Arachis induced allotetraploids by molecular cytogenetics. Embrapa Genetic Resources and Biotechnology, Brasília, Brazil.

<u>Ana Araujo</u>. Characterization of miRNAs during Arachis stenosperma and root-knot nematode interaction Embrapa Genetic Resources and Biotechnology, Brasília, Brazil.

<u>Z. Zhao</u>. Towards fine-mapping a major locus controlling tomato spotted wilt disease resistance in peanut University of Florida, Gainesville, FL

Each honoree received \$100 and a certificate sponsored by Oilseeds & Bioscience Consulting.

<u>IPGI Summit:</u> Holbrook reported the IPGI Summit on Thursday at AAGB-2017 would be scheduled for facilitated interactive discussions of issues important to IPGI. The Summit would provide an opportunity to solicit views on the future direction of IPGI and to identify priorities for research funding on a global regional basis. To make the best use of time during the Session, Holbrook and Nwosu (session chairs) distributed a survey consisting of the following five questions:

- 1) What are the most important IPGI research accomplishments in the past 5-years? Responses will help demonstrate the value of continued funding for peanut research on a global basis.
- 2) What are your current research objectives as related to the IPGI?
- 3) Which researchable problems that constrain the peanut supply-chain in your home country should have high IPGI priority?
- 4) Are adequate resources available to address each problem? Please address concerns about facilities, personnel, operating funds, germplasm, molecular markers, etc. Response will help identify targets for improved organizational infrastructure.
- 5) Does the new IPGI Strategic Plan provide an adequate platform to meet future peanut research needs? Responses will help define research objectives in the Plan for 2017-2021.

Discussion of the survey questions during the interactive session was facilitated by: Fonseka, Stalker, Wright, Francisco de Blas, Pandey, and X. Wang. Information received from the survey and discussions during the Closing Ceremony of AAGB-2017 will be used in development of the 2016-2017 IPGI Annual Performance Report to Stakeholders, and will provide a basis for revising the IPGI Strategic Plan with multiple projects on specific topics (similar to the Peanut Genome Project but more driven by application of genomic technologies). Such projects could also help define the program of future AAGB meetings.

# **Future AAGB Meetings:**

Brown announced receipt of three proposals for hosting the next AAGB meeting. Entries were received from Xingjun Wang for Jinin China; Manish Pandey for Goa, India; and Daniel Fonseka for Dakar, Senegal. Presentations were given. In a subsequent meeting, IPGI members discussed the proposals. All were found to be excellent in terms of location, organization resources, and funding support. Wilson moved that all three proposals be accepted, and that the order of execution of each proposal be determined by secret ballot. The motion passed. Vote was taken. The next AAGB meeting will be held in Senegal. The order of future meetings in China and India will be determined in a timely manner.

# **Next Meetings**:

PGI during APRES in Albuquerque NM, July 11-13, 2017 ADJOURNED