IWGSC Newsletter – January to March 2019

The IWGSC

- <u>Membership</u>:
  The IWGSC has 2400 members in 68 countries, working on 749 institutes/companies

- <u>Sponsors</u>:
  - o Currently, the IWGSC has [9 sponsors](#).
  - o [Read the Sponsor highlight on Florimond Desprez](#)
  - o Sponsor support is essential to ensure continuation of Phase II activities. Please inform us if you know of any potential sponsors (research institutes, universities, governmental agencies, or companies).

Projects

- <u>IWGSC Wheat Diversity project</u>: the aim is to characterize the breadth of worldwide wheat diversity by de novo sequencing and assembly of at least eight landraces at high quality to obtain ancient wheat haplotypes and sequence multiple landraces and elite varieties at lower quality to capture modern genetic diversity, including alien introgressions. In the framework of this project, the [IWGSC became a member of the DivSeek initiative](#) as this will allow us to align our efforts to expand the diversity in cultivated wheat varieties.
- <u>IWGSC Exome Array project</u>: The initial myBaits^R Expert Wheat Exome capture panel based on the IWGSC RefSeq annotation v1.1 has been available since the end of January 2019. Arbor Biosciences is in the last stage of the beta development and anticipate the full release in June. An optional bioinformatics support platform is currently being evaluated and should be available yet this year. We are continuing our partnership with Arbor Biosciences and hope to see additional iterations of the exome panel in the future.
- <u>IWGSC Gold Standard</u>: gap closure, maintenance, annotation updates, and integration of manual and functional annotation to the reference sequence. Finishing the reference (gap closing) and integrating manual and functional annotation remain critical to long-term utility of the wheat genome sequence. To facilitate high quality functional annotation, we are seeking experts willing to take the lead in the functional annotation of gene families in wheat, contact [Kellye Eversole](#) if you would like to be involved.
- <u>Integrated database</u> and tools to benefit public breeders and the full range of industry partners, from SME to large companies. If you think something is missing in the IWGSC databases or toolbox, please contact [Michael Alaux](#) and [Kellye Eversole](#).

Data Repository at URGI

New files have been made available for download and new tracks have been added to the JBrowse at the [IWGSC data repository hosted by URGI-INRA](#)

- New files available for download:
  - o [syntenic gene pairs](#)
  - o [GBS SNP calls](#)
  - o [tRNA](#)
- New tracks and information in the JBrowse:
  - o 280k markers track from the BreedWheat project (TaBW280K)
  - o tRNA track
  - o CSS and TGACv1.0 mapping tracks
  - o addition of the GOMAP annotation for the HighConfidenceGenes v1.1

o addition of links from the genes to other tools: WheatMine, EnsemblPlants and Persephone

People
- Sponsor Highlight: [Pierre Devaux, Florimond Desprez](#)
- Leader Spotlight: [Manuel Spannagl](#)
- Early Career Awardee: [Carolina Sansaloni](#)
- Leadership awardees
  - [Hélène Bergès](#)
  - [Hirokazu Handa](#)
  - [Curtis Pozniak](#)
  - [Francis Quétier](#)

Upcoming Meetings/Workshops
- 6-8 June 2019 – [PAG Asia](#):
  - The IWGSC will hold a workshop entitled "IWGSC - towards a functionally annotated wheat genome reference sequence" [on Saturday 8 June](#) from 11:15am to 1:00pm
  - followed by a full day workshop on annotation of gene families [on Sunday 9 June](#) from 9am to 5pm at BGI Shenzhen, organized in collaboration with EMBL-EBI (program available soon)
- 21-26 July 2019 – [International Wheat Congress](#): The IWGSC will hold a Coordinating Committee meeting (closed meeting, by invitation only)

Past Meeting/Workshop
- 12-16 January 2019: The IWGSC organized two workshops and a business meeting at [PAG](#) San Diego, USA
  - [Main Workshop](#) – [Speaker profiles](#)
  - [Wheat Genome Manual and Functional Annotation Workshop](#)
  - [Business meeting](#)
  - [PAG pictures](#)

Presentations
- [Kellye Eversole presentation, IWGSC Business Meeting, San Diego, 12 January 2019](#)
- [Jacob Enk presentation, IWGSC Business Meeting, San Diego, 12 January 2019](#) – status update of the IWGSC-Arbor Biosciences Wheat Exome project
- [Michael Alaux presentation, IWGSC Business Meeting, San Diego, 12 January 2019](#) – process to provide updated gene annotations for inclusion in IWGSC RefSeq annotation v2.0
- [Kellye Eversole presentation, DivSeek roundtable, San Diego, 11 January 2019](#)

Publications/resources
- [IWGSC poster at PAG 2019](#)
- [Arbor Biosciences poster at PAG 2019](#)
- Set of [slides](#) for members to use in their presentations – Updated April 2019
- Animated video: [The Bread Wheat Genome Sequence – A Tool for Breeders to Improve Wheat and Contribute to Food Security](#)

And don't forget to follow us on [Twitter](#) and [Facebook](#) and [LinkedIn](#)