

Newsletter N° 3/2019

# **IWGSC Newsletter – September 2019 to 09 January 2020**

#### The IWGSC

Membership:

The IWGSC has 2,800 members in 70 countries, working at 828 institutions/companies.

- Sponsors:
  - Currently, the IWGSC has <u>8 sponsors</u>.
  - Read the sponsor highlight on the <u>Kansas Wheat Commission</u>, a founding member and continuous supporter of the IWGSC since 2005.
  - Sponsor support is essential to ensure continuation of 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.

In this project, the genomes of eight to twelve landraces, representing the full breadth of genetic diversity in wheat (as described by <u>Balfourier, et al.</u>), will be sequenced at high quality. These, in conjunction with the IWGSC RefSeq v1.0 and v2.0, will serve as the foundation for the diversity panel and haplotype map. Lower quality genome sequences of other landraces and elite lines will be added as available. Efforts to secure funding is ongoing.

# • <u>IWGSC Exome Array project</u>

On 4 October 2019, <u>Arbor Biosciences announced</u> the official release of the myBaits® Expert Wheat Exome capture panel developed in collaboration with the IWGSC. The panel was designed using the reference genome for bread wheat cv. Chinese Spring, IWGSC RefSeq v1.0, which was fully annotated and published by IWGSC members. The panel utilizes over two million probes to cover 200 megabases of high confidence exons in the genome and is compatible with both hexaploid and tetraploid cultivars of wheat.

## IWGSC Promoter Capture project

The IWGSC is working on the design for an IWGSC-Arbor Biosciences promoter capture under the leadership of IWGSC Coordinating Committee member, Jorge Dubcovsky. Stay tuned for information.

## IWGSC RefSeqv2.0

<u>An improved version</u> of the reference wheat genome, completed under the leadership of Coordinating Committee members Mingcheng Luo and Jan, is available at the <u>IWGSC data repository hosted by URGI-INRA</u> under Toronto protocol.

## • <u>IWGSC RefSeq Annotation v2.0</u>

Targeted annotation of IWGSC RefSeq v2.0 is currently under way.

Continued manual and functional annotation of the reference is essential. To facilitate high quality functional annotation, we continue to seek experts willing to take the lead in the

functional annotation of gene families in wheat, contact <u>Kellye Eversole</u> and Fred Choulet if you would like to be involved.

# Data Repository at URGI

- The IWGSC RefSeq v2.0 assembly is available for <u>download</u> and <u>BLAST</u>. The data are being released in advance of publication to the scientific community under the terms of <u>Toronto</u> <u>agreement</u> which affords the data producers the right to publish the first whole genome analyses of the data.
- · How to access the data:
  - Access does require registration. For specific access terms, see the <u>IWGSC General Data</u>
    Access agreement.
  - Individuals who have not signed the IWGSC Data Access Agreement should FIRST <u>register</u> on the IWGSC website and <u>sign the Agreement</u>; URGI login details will be provided subsequently for access to the data.
  - Individuals who have already signed the IWGSC Data Access Agreement can go directly to the URGI website to access the data using their URGI login details. If you have forgotten your URGI credentials, please send an email to <a href="mailto:urgi-support@inra.fr">urgi-support@inra.fr</a>.

#### People:

- Leader spotlight on <u>Hélène Rimbert</u>
- Early Career awardee: Harriet Benbow
- Sponsor Highlight: <u>Justin Gilpin, Kansas What Commission</u>

# **Upcoming Meetings/Workshops**

- 11-15 January 2020: Plant and Animal Genome conference PAG XXVIII, San Diego, CA, USA:
  - o IWGSC Main Workshop: 11 January 2020, 8:00-10:10am, room: Town and Country
    - Speaker profiles
  - o IWGSC Business Meeting: 11 January 2020, 6:20-8:00pm, room: Pacific Salon 4-5
  - IWGSC Manual and Functional Annotation Workshop: 14 January 2020, 1:30-5:00pm, room: Pacific Salon 2
  - And don't forget to stop by the IWGSC Poster on board #35
- 22 January 2020: Webinar on wheat proteomics presented by Ive De Smet (Ghent University, Belgium).

#### Publications/resources

- Set of <u>slides</u> for members to use in their presentations Updated January 2020
- Animated video: <u>The Bread Wheat Genome Sequence A Tool for Breeders to Improve Wheat</u> and Contribute to Food Security

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