

International Wheat Genome Sequencing Consortium

# IWGSC – From Structure to Functional Wheat Genomics



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### The International Wheat Genome Sequencing Consortium







### Why Join the IWGSC? How to join the IWGSC?

- Join global community and network of wheat scientists
- Newsletter: announcements, news, events
- Monthly Webinar Series
- Data & Tool Resources



### **Resources at IWGSC**



	About	News	Activities	People	Projects	Resources	Sponsors	Register
Data from Turkish elite cultivar So	nmez now <u>available at</u>		1 AL		12	Annotations		-
URGI Data from the reference sequence of the Turkish by Hikmet Budak, Ani Akpinar, Sezgi Bıyıklıoğlu, (3) Read more	elite cultivar Sa and Valérie	Research				F1000Research 20	022, 11:614 Last updat	ted: 24 JUN 2022 K for updates
RefSeq v2.1 Assembly and Annota available at URGI and NCBI The International Wheat Genome Sequencing C that version 2.1 of the reference sequence of bre () Read more	tion now fr onsortium is ple ad wheat, IWG "Sonn	GENOME NOTE The complete genome sequence of elite bread wheat cultivar, "Sonmez" [version 1; peer review: 3 approved] Bala Ani Akpinar <sup>1</sup> , Philippe Leroy <sup>2</sup> , Nathan Watson-Haigh <sup>3-5</sup> , Ute Baumann <sup>3</sup> , Valerie Barbe <sup>10</sup> <sup>6</sup> , Hikmet Budak <sup>10</sup>						
MNase chromatin data now availa MNase chromatin accessibility data for CS genou Akhunov's lab (Kansas State University, USA) are	ble at URG ne generated ir now available Valerie							
IWGSC RefSeq v2.0 now available         The International Wheat Genome Sequencing C         that version 2 of the reference sequence of breat         Image: Sequence of the sequ	at URGI onsortium is ple d wheat, IWGS <sup>1</sup> Genomics <sup>2</sup> Diversité e <sup>3</sup> School of A 5064, Austr <sup>4</sup> South Austr <sup>5</sup> Australian	<ul> <li><sup>1</sup>Genomics and Genome Editing, Montana BioAg. Inc, Missoula, Montana, 59802, USA</li> <li><sup>2</sup>Diversité et Écophysiologie des Céréales, INRAE-UCA, UMR 1095, Génétique,, Clermont-Ferrand, 10951095, France</li> <li><sup>3</sup>School of Agriculture, Food and Wine, University of Adelaide, Plant Genomics Centre, Waite Campus, Hartley Grove, Urrbrae SA</li> <li><sup>5</sup>S064, Australia, Adelaide, Australia</li> <li><sup>4</sup>South Australian Genomics Centre, SAHMRI, North Terrace, Adelaide SA 5000, Australia (NSWH), Adelaide, Australia</li> <li><sup>5</sup>Australian Genome Research Facility, Victorian Comprehensive Cancer Centre, Melbourne, VIC 3000, Australia</li> </ul>						
All IWGSC data related to the refe bread wheat, IWGSC RefSeq v1.0, URGI	rence sequ <sup>6</sup> Génomiqu publicly av <del>anaple at</del>	e Métabolique	e, Genoscope, Institu	ut François Jacob	, CEA, CNRS, Evry,	France	Mar A	Ja Ca

### **Resources at IWGSC**



### **IWGSC Monthly Webinar Series**

WEBINAR multi-species, low cost, nome wide genotyping atform to support molecular eeding in small grains risday 26 January Ioam EST A multi-species, low cost, genome wide genotyping platform to support molecular breeding in small grains

On 26 January 2023, the IWGSC will organize a webinar entitled "A multi-species, low cost, genome wide genotyping platform to support molecular...

> Read more



#### Webinar: Yield gene cloning in wheat

On 17 November 2022, the IWGSC organized a webinar entitled "Yield gene cloning in wheat" presented by Liuling Yan (Oklahoma State University, USA)

> Read more



### Webinar: Sequencing the genome of the French wheat variety Renan

On 29 September 2022, the IWGSC organized a webinar entitled "Sequencing the genome of the French wheat variety Renan" presented by Frédéric...

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Webinar: Extensive exploration of wild relatives diversity for wheat breeding: from the gene bank to the field

On 07 July 2022, the IWGSC organized a webinar entitled "Extensive exploration of wild relatives diversity for wheat breeding: from the gene bank to...

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Webinar: PANOMICS meets Germplasm – understanding and exploiting intraspecific crop plant variation

- Live, interactive Webinar since 2020
- Topics on all aspects of Wheat Science
- Past Webinars available on YouTube IWGCS Channel with >800 subscribers





### **IWGSC 2.0 Vision**

Enhance breeding through an increased understanding of the molecular basis of traits and their allelic diversity





- IWGSC Wheat Diversity project platinum quality sequences of 8-12 landraces representing breadth of wheat diversity
- Expand collaborations with wheat genomic tool developers
- Continued efforts to integrate manual and functional annotation into IWGSC reference sequences
- ► IWGSC Webinar series

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## Thank you for your attention!

### www.wheatgenome.org







# Today's Speakers

	King Abdullah	
Andrea Gonzalez-	University of Science	The Pangenome of Aegilops tauschii Facilitates High-
Munoz	and Technology	Resolution Genomics Studies
-184-	(KAUST)	
Andy Chen	John Innes Centre	Short Vegetative Phase-A1 (SVP-A1) Underlies the Long
		Glume Locus, P2, of Triticum Ispahanicum
Shawn Quinn	Curio Genomics	Leveraging the IWGSC Gene Annotations with Additional Cultivars in Curio