



# The International Wheat Genome Sequencing Consortium

January, 2008

**IWGSC is an internationally coordinated effort to sequence the bread wheat genome and create a platform for accelerating wheat improvement.**

**In the context of its international development and its priority to contribute to research in wheat, around its members, Céréales Vallée is current IWGSC sponsor.**

**The Executive Director is Kellye Eversole and the European co-chairman is Catherine Feuillet (INRA), who is also Céréales Vallée scientific council member.**



Kellye Eversole

Credit photo : Céréales Vallée, Limagrain et ses filiales

## The context

Bread wheat is grown on over 95% of the wheat growing area and its sequence holds the key to genetic improvements that will allow growers to meet the increasing demands for high quality food and feed produced in an environmentally sensitive, sustainable, and profitable manner.

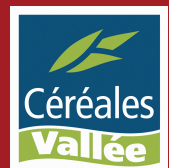
Further, because of its recent history, hexaploid wheat is a very good model to study polyploidy, a driving force for plant genome evolution.



## Challenges to Agricultural Industries

- Sufficient supplies of food, feed, fiber, and bioproducts in an environmentally sustainable manner with guaranteed safety, high quality, and consistency
- Wheat, historically, has provided breeders limited opportunities for capturing value (maize = \$5,100 million/ wheat = \$735 million)
- Wheat genetic improvements and yield increases lag behind
- Lowest global wheat stocks in 32 years
- We must build the next generation wheat breeding platform

More informations : [www.wheatgenome.org](http://www.wheatgenome.org)



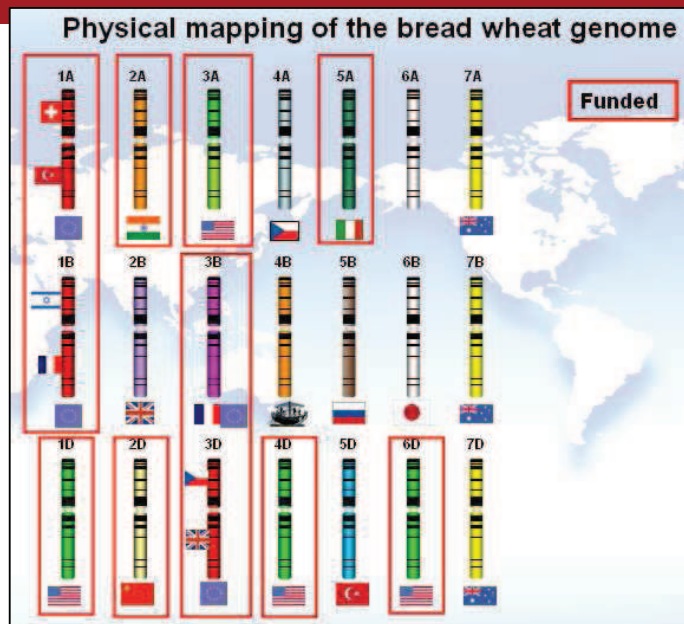
## The missions

The IWGSC is an internationally coordinated effort to sequence the bread wheat genome with the ultimate goal of developing a 21st century platform for accelerating wheat improvement. IWGSC utilize a milestone based strategy that is designed to deliver products and tools to breeders as we build the foundation for sequencing the wheat genome.

In this way, wheat breeders can begin immediately to apply the resources from IWGSC projects to their breeding programs without having to wait for a complete sequence. Accelerating wheat improvement underlies all aspects of IWGSC projects and strategies.

The IWGSC goal is to deliver a product with the greatest utility to those who will use the sequence information over the next 100 years for crop improvement and enhanced understanding of biology.

Consistent with its goal of rapid application, the IWGSC is developing a physical map that will provide powerful tools for gene discovery while also serving as a substrate for genome sequencing.



## The organization

The IWGSC was established by a group of plant scientists, breeders, and growers dedicated to sequencing the wheat genome to enhance our knowledge of the structure and function of the wheat genome.

The IWGSC is governed by six co-chairs, a Coordinating Committee, and an executive director. The Coordinating Committee consists of representatives from laboratories involved in the development of resources and projects for sequencing and annotating the wheat genome, or from organizations providing direct funding for the consortium. General membership in the consortium is open to any individual, laboratory, or entity with an active interest in meeting the objectives of the IWGSC.

To achieve the vision of a sequenced wheat genome, the IWGSC establishes strategic plans with short- and mid-term goals, defines areas of coordination, facilitates and coordinates research projects and funding efforts at the national and international levels, develops and supports the design of research proposals, provides a framework for the establishment of common guidelines, protocols, and resources, and organizes scientific meetings and workshops.

### Current IWGSC Sponsors:



# Current IWGSC Sponsors

