



## Arbor Biosciences Partners with Curio Genomics for Analysis of IWGSC Wheat Exome

**Ann Arbor, Michigan July 16, 2019** – Arbor Biosciences, a division of Chiral Technologies, Inc and worldwide leader in next generation sequencing (NGS) target enrichment, announces a partnership with Curio Genomics for bioinformatics analysis of the wheat genome. Arbor has an ongoing collaboration with the International Wheat Genome Sequencing Consortium (IWGSC), an international organization dedicated to developing a gold-standard reference genome for bread wheat cv. *Chinese Spring*, to provide IWGSC members with a standardized exome panel for research and development. Adding the Curio Genomics strategic partnership allows Arbor Biosciences to harness the power of the Curio Genomics platform in an end-to-end solution, from DNA to variant analysis, for wheat exome sequencing through their myReads® NGS services division.

The Curio Genomics platform streamlines bioinformatics analysis by moving beyond the typical pipeline approach of serial processes through parallel processing sequencing data. Curio's ability to bring together both analytical processing and data visualization into a common toolset allows researchers to experiment and ask questions of the data in a very fluid fashion. Curio's unique incremental and parallel approach to processing wheat exome samples allows users to compare, change analytical settings and, apply different filters all in real time with the results immediately at their fingertips.

“We are excited to partner with Arbor Biosciences and expand our genomics portfolio to include wheat and other agricultural crops.” stated David Brabec, Partner at Moxie Genomics (the company behind the Curio Genomics platform). “Our on-premise system is designed for large scale breeding organizations while our cloud-based solution delivers immediate access to wheat researchers across the globe”

Sequencing and analysis of the entire bread wheat genome is incredibly difficult and costly due to its enormous size, complex sub-genomes, and more than 85% of the genome being composed of repetitive elements. Arbor Biosciences initially reduced sequencing costs of each sample with the myBaits® Expert Wheat Exome capture panel by focusing on only the high-confidence exon-annotated genome in hexaploid wheat, and now speeds analysis of the resulting data with Curio's platform.

“The IWGSC is committed to ensuring that the wheat breeders have state-of-the-art genomic resources. In this partnership, our members as well as the scientific community will benefit from having access to a unified analysis platform which streamlines data sharing and can facilitate comparative analyses across the consortium,” said Kellye Eversole, Executive Director of the IWGSC.

Arbor Biosciences is launching the full-service offering this month which includes the myBaits® Expert Wheat Exome capture panel and Curio Genomics bioinformatics analysis through the myReads NGS services or as stand-alone products. The bioinformatics service provides whole genome alignment as well as variant calling from *Chinese Spring* or other cultivars of hexaploid wheat. Arbor Biosciences' partnership with the IWGSC and Curio Genomics will continue as Arbor plans to develop new iterations of the exome panel and data analysis pipeline as further understanding of the wheat genome grows. Additionally, Arbor Biosciences is developing panels specific to disease and drought resistance for wheat researchers.

“The Curio platform delivers rapid processing of data in a user-friendly interface for our clients.” explained Jacob Enk, PhD, Senior Scientist at Arbor Biosciences. “We are proud to add this high-performance solution for IWGSC members and the wheat research community.”

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### **About Arbor Biosciences**

Arbor Biosciences, a division of Chiral Technologies, Inc. and a subsidiary of Daicel Corporation, is a development and manufacturing company founded by scientists to serve our peers in molecular biology applications. We are a passionate organization of scientists determined to deliver cost-effective, user-friendly products to researchers of genetics and synthetic biology. The team at Arbor Biosciences prides themselves on providing exceptional customer service and timely technical support to new or advanced users on our array of products. We routinely collaborate with our customers and research partners to develop innovative solutions to address their unique applications.

### **About Curio Genomics**

Curio Genomics’ proprietary parallelized bioinformatics platform enables unprecedented data processing speed. Intuitive and easy to use interfaces allow researchers to ask simple and complex questions simultaneously as the data is being processed providing extensive analytic versatility and power. This unique approach also allows complex questions to be asked across multiple samples and data sets, making it possible to share, query, annotate and comment on data in real time, empowering collaboration and distributed research. For information about Curio Genomics bioinformatics tools, visit [www.curio genomics.com](http://www.curio genomics.com)

### **About the International Wheat Genome Sequencing Consortium**

The IWGSC, with 2,400 members in 68 countries, is an international, collaborative consortium, established in 2005 by a group of wheat growers, plant scientists, and public and private breeders. The goal of the IWGSC is to make a high-quality genome sequence of bread wheat publicly available, in order to lay a foundation for basic research that will enable breeders to develop improved varieties. The IWGSC is a U.S. 501(c)(3) non-profit organization. [www.wheatgenome.org](http://www.wheatgenome.org)

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