## Arcadia Biosciences and BGI to Create Global Non-GM Genetic Resource for Rice

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# - 5,000 Rice Lines With Millions of Unique Genetic Variations Targeted for Public Availability -

DAVIS, Calif. & SHENZHEN, China--(BUSINESS WIRE)--Dec. 8, 2015-- Arcadia Biosciences, Inc. (Nasdaq:RKDA), an agricultural technology company, and BGI, the world's largest genomics organization, announced a collaboration to create an extensive rice genetic resource library to advance food crop research and development.

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Under the agreement, BGI and Arcadia will combine their resources and capabilities to create, sequence and characterize millions of new gene alleles to advance rice breeding globally. The collaboration will focus on 5,000 proprietary indica-type rice lines, provided by Arcadia, featuring high-density variation within the rice genome. Arcadia has developed non-genetically modified (non-GM) genetic diversity libraries in other major crops such as soybeans, two types of wheat, canola, and vegetable crops.

Rice researchers worldwide will be able to tap directly into this new and extensive set of genetic resources to use in the research and development of higher-yielding rice varieties. All of the varieties are non-GM and can easily be used by rice breeders globally. The project leverages BGI's world-class genome sequencing capabilities with Arcadia's proprietary rice genetic assets and high-throughput genetic screening platform.

BGI will determine the genomic DNA sequences for all 5,000 lines and make the assembled and analyzed data freely available online. The China National Gene Bank, being established and operated by BGI, will store the seed and distribute the rice lines in exchange for researchers providing public access to findings using these lines.

Under the collaboration, Arcadia will have the rights to apply the findings from the collaboration to extend and broaden its ongoing programs that increase the yields and the profitability of rice production globally. This work will build on Arcadia's extensive research in rice, including traits that are in late stages of development for nitrogen use efficiency and salinity tolerance.

"These shared results have the potential to accelerate rice variety development and eventually extend to other key food crops," said Eric Rey, president and CEO of Arcadia. "We are cost-effectively connecting a major global genetics research base with the breeders who can apply that knowledge practically to support global food security in the face of growing populations, limited land resources and the negative effect of climate change on crop yields."

"As the staple food for China, as well as for nearly half of the world's population, rice is one of BGI's most important research priorities," said Xin Liu, vice director of BGI-Research. "Large-scale discovery of novel alleles for desirable rice phenotypes is critical to understanding genomic diversity and elucidating gene function for development of elite varieties. We also encourage greater efforts to establish a global, public rice genomic database and advance rice improvement. In the future, we hope to dedicate such efforts to other important crops, like millet, soybean, maize and wheat."

Rice is the world's most valuable crop, grown on more than 395 million acres globally with a harvest value of \$429.3 billion in 2013. The crop plays a critical role in food security for more than half of the world's population. Arcadia has partnered with the US Agency for International Development (USAID) on multiple projects with rice breeders in Bangladesh, Colombia, Ghana, India, Indonesia, Nigeria and Uganda to improve local rice yields.

## About Arcadia Biosciences, Inc.

Based in Davis, Calif., with additional facilities in Seattle, Wash. and Phoenix, Ariz., Arcadia Biosciences (Nasdaq:RKDA)

develops agricultural products that create added value for farmers while benefitting the environment and enhancing human health. Arcadia's agronomic performance traits, including Nitrogen Use Efficiency, Water Use Efficiency, Salinity Tolerance, Heat Tolerance and Herbicide Tolerance, are all aimed at making agricultural production more economically efficient and environmentally sound. Arcadia's nutrition traits and products are aimed at creating healthier ingredients and whole foods with lower production costs. The company was recently listed in the Global Cleantech 100 and was previously named one of MIT Technology Review's 50 Smartest Companies. For more information, visit www.arcadiabio.com.

### About BGI

BGI, founded in 1999 with the vision of using genomics to benefit the human race, is now the world's largest genomics organization. In 2007, BGI's headquarters was relocated to Shenzhen as the first citizen-managed, non-profit research institution in China. BGI (which includes both private non-profit research institutes and sequencing application commercial units) and its affiliated offshoots, BGI Americas and BGI Europe, have established partnerships and collaborations with leading academic and government research institutions as well as global biotechnology and pharmaceutical companies, to support a variety of healthcare, agricultural, environmental and related applications. After 15 years of development, BGI has evolved into a very broad scientific and technological organization, giving its academic and business scope global reach. For more information, visit www.genomics.cn.

### **Note Regarding Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements relating to the company's genetic resources in rice. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially, and reported results should not be considered as an indication of future performance. These risks and uncertainties include, but are not limited to: the company's and its partners' and affiliates' ability to identify and isolate desired traits; the company's and its partners' ability to develop commercial products incorporating its traits; the company's compliance with laws and regulations that impact the company's business, and changes to such laws and regulations; the company's future capital requirements and ability to satisfy its capital needs; and the other risks set forth in the company's fullings with the Securities and Exchange Commission from time to time, including the risks set forth in the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015 and other filings. These forward-looking statements speak only as of the date hereof, and Arcadia Biosciences, Inc. disclaims any obligation to update these forward-looking statements.

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