



## FOR IMMEDIATE RELEASE

# Danforth Plant Science Center and Valent BioSciences will Collaborate in Unique Root Science Initiative

Master Agreement will focus on improving agriculture with non-destructive imaging technology for root growth dynamics

LIBERTYVILLE, IL, July 11, 2016 – Valent BioSciences Corporation (VBC) and the Donald Danforth Plant Science Center today announced the finalization of a multi-year, Master Cooperation Agreement in the area of root science and the rhizosphere. Located in St. Louis, MO, the Danforth Center is among the world's preeminent institutes for research and innovation surrounding plant science and associated technologies. VBC is a wholly-owned subsidiary of Sumitomo Chemical Company and a global leader in the research, development, and commercialization of biorational technology for agriculture, public health and forestry.

"We are pleased to be entering into this agreement with a partner that has such demonstrated success in plant science innovation", said James Carrington, Ph.D., president of the Danforth Plant Science Center. "We view our imaging work as a potentially game-changing technology that warrants a collaborator with a global view and a full complement of proven, effective technologies to help us improve the human condition through plant science. VBC was our first choice."

Until now, the only way for plant scientists to observe in-field root development has been to extract them from the soil. For the first time, today's advanced imaging technology allows real-time data gathering in a way that is non-destructive and non-disruptive to future plant development.

The agreement is designed to maximize outcome potential by intersecting core competencies from within the two organizations. The Danforth Center focuses on discoveries and technologies for improving agricultural productivity with minimal environmental impact including new research on non-destructive imaging technology for root growth dynamics. Over the last two years, VBC has made sizeable commitments to rhizosphere technologies including the acquisition of Mycorrhizal Applications, LLC (MA) and several licensing and research agreements designed to accelerate its root zone portfolio.

"It was an honor to be approached by the Danforth Center as a collaborator for this significant body of work," said Dr. Warren Shafer, Vice President of R&D and Regulatory Affairs for Valent BioSciences. "There is an obvious overlap in mission and purpose between the two organizations, and our knowledge and respective technologies are clearly complementary. Together, they hold tremendous potential for our stakeholders."



Danforth Center Principal Investigator Chris Topp, Ph.D., was recently awarded a grant from the National Science Foundation to support his work combining root phenotyping technologies with computational analysis, quantitative genetics and molecular biology to understand root growth and physiology. The NSF and VBC agreements will jointly fund a large-scale X-ray imaging system for non-invasive root measurements, the first of its kind dedicated for plant science in the U.S. academic research sector.

Through MA and SyMyco Inc., a joint venture in which MA participates, VBC brings the world's foremost experts in the study and propagation of mycorrhizae – beneficial fungi that colonize plant roots to enhance nutrient uptake and water efficiency. VBC also has research agreements in place with BioMar, LidoChem, and Rhizobacter, all established leaders in emerging biorational technology for the rhizosphere and beyond.

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#### **About Valent BioSciences Corporation**

Headquartered in Libertyville, IL, Valent BioSciences is a subsidiary of Tokyo-based Sumitomo Chemical Company and is the worldwide leader in the development, manufacturing and commercialization of biorational products with sales in 95 countries around the world. Valent BioSciences is an ISO 9001:2008 Certified Company. For additional information, visit the company's website at <a href="https://www.valentbiosciences.com">www.valentbiosciences.com</a>

#### **About the Danforth Plant Science Center**

Founded in 1998, the Donald Danforth Plant Science Center is a not-for-profit research institute with a mission to improve the human condition through plant science. Research, education and outreach aim to have impact at the nexus of food security and the environment, and position the St. Louis region as a world center for plant science. The Center's work is funded through competitive grants from many sources, including the National Institutes of Health, U.S. Department of Energy, National Science Foundation, and the Bill & Melinda Gates Foundation.

### **About Sumitomo Chemical Company, Limited**

Headquartered in Tokyo, Japan, Sumitomo Chemical Company is one of Japan's leading chemical companies, offering a diverse range of products globally in the fields of petrochemicals, energy and functional materials, IT-related chemicals and materials, health and crop science products, and pharmaceuticals. The company's total consolidated sales for fiscal year 2015 were JPY 2.1 trillion. For additional information, visit the company's website at <a href="https://www.sumitomo-chem.co.jp/english/">www.sumitomo-chem.co.jp/english/</a>.

#### **About Mycorrhizal Applications, LLC**

Headquartered in Grants Pass, OR, Mycorrhizal Applications LLC (MA) grows mycorrhizal seeds, or "spores," used to produce mycorrhizal plants that improve soil health and increase nutrient and water uptake and efficiency. Working hand-in hand with the forestry, agricultural, ornamental, turf, and nursery industries, MA prides itself in its commitment to sustainability, customer service, and quality products based on and sound science. For additional information, visit the company's website at <a href="http://mycorrhizae.com">http://mycorrhizae.com</a>



### About SyMyco Inc.

SyMyco was founded in 2010 and is headquartered at the Bio-Research and Development Growth Park at the Danforth Plant Science Center in St. Louis; SyMyco research and production are focused on mycorrhizal fungi which expand a plant's roots by adding thousands of absorbing fungal hyphae. These fungi play a critical role in the health and productivity of 90 percent of plant species in natural areas and form with most major crop species and also reduce the need for water and chemical fertilizers. For more information, visit the company's website at <a href="http://www.symyco.com">http://www.symyco.com</a>.

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