Intrexon Introduces Florian™ Switch Technology for Flowering Control

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Genetic "On-Off" Switch Promises Broad, Innovative Applications in Agriculture

DAVIS, Calif., July 25, 2016 /PRNewswire/ -- Intrexon Corporation (NYSE: XON), a leader in the engineering and industrialization of biology to improve the quality of life and health of the planet, today introduced its Florian™ technology, an "on-off" regulation switch enabling a variety of commercial applications in agriculture. The platform, developed at Intrexon, furthers the Company's position in inducible control and regulation of genes for bio-based products spanning therapeutics, gene therapy, and agriculture.

The Florian™ switch system exhibits the capability to regulate the timing of flowering, as well as selectively activate specific plant genes, through topical application of an activator. By targeting a flowering pathway in *Arabidopsis* commonly found in other plant species, this technology demonstrates its potential for broad applicability.

"The talented team at Intrexon, through their ingenuity and tireless work, has demonstrated cutting edge flowering control utilizing our Florian™ platform in a common pathway found in most plants. This achievement opens significant opportunities in agricultural markets," said Sekhar Boddupalli, Ph.D., Head of the AgBio Division at Intrexon. "In addition to its many commercial applications in flowering control per se, we also see the promise of this technology to reduce the environmental risk of pollen drift from GMO forage crops and turfgrass to cross-pollinate closely-related wild plant species."

Intrexon's Florian™ technology opens the door to a diverse range of beneficial agricultural applications including:

- Increase biomass production in forage crops by prolonging vegetative state;
- Improve crop yield and quality, in conjunction with lower cost profile, for select fruits and vegetables;
- On-demand resistance for environmental and biological stressors such as drought, pests and disease;
- Allow precise control of flowering in high value fruit and produce to aid in harvest timing (e.g. strawberries, pineapples, apples);
- Provide flexibility to florists to control flowering on-site based on demand, thereby increasing productivity and lowering waste commonplace in the industry;
- Tune consumer appealing traits such as color and aroma in fruits and flowers;
- Enhance plant-based production of high-value active pharmaceutical ingredients; and
- More efficient and effective commercial seed production.

Intrexon intends to develop and commercialize numerous applications of the Florian™ switch platform with existing and new agricultural partners utilizing its Exclusive Channel Collaboration business model. The Company will focus its initial application efforts on near-to-market opportunities in turf, floral, and forage industries.

"Achieving global food security in the face of climate change and a still-growing human population is perhaps the greatest challenge we face in the 21st century. Control of flowering using Florian™ technology represents an elegant biological approach to helping farmers grow more with less waste. By precisely controlling when a crop plant flowers, farmers can achieve a number of different outcomes from greater biomass production to optimal timing of fruiting and seed production," stated Nina Fedoroff, Ph.D., Evan Pugh Professor Emerita, Penn State University.

"Florian™ technology represents an important advance in the engineering of plant biology and through its self-limiting profile further illustrates the Company's responsible approach to environmentally sound applications of synthetic biology. We look forward to working with partners to apply the power and promise of this platform in commercial settings as quickly as possible," said Randal J. Kirk, Chairman and Chief Executive Officer of Intrexon. "I would like to extend our appreciation and thanks to the AgBio team, in particular to Dr. Boddupalli, for successfully moving this multi-year effort at Intrexon across this important milestone."

About Intrexon Corporation

Intrexon Corporation (NYSE: XON) is Powering the Bioindustrial Revolution with Better DNA ™to create biologically-based products that improve the quality of life and the health of the planet. The Company's integrated technology suite provides its partners across diverse markets with industrial-scale design and development of complex biological systems delivering unprecedented control, quality, function, and performance of living cells. We call our synthetic biology approach Better DNA®, and we invite you to discover more at www.dna.com or follow us on Twitter at @Intrexon.

Trademarks

Safe Harbor Statement

Some of the statements made in this press release are forward-looking statements. These forward-looking statements are based upon our current expectations and projections about future events and generally relate to our plans, objectives and expectations for the development of our business. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this press release.

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