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**Media Advisory**  
**For Sept. 12-14, 2016**

**Meet ag's most promising innovators at Ag Innovation Showcase**

Investors are among the first to meet 20 early stage ag startups in technologies ranging from soil health, water management, automation, and alternative food systems at the eighth annual Ag Innovation Showcase.

What	Eighth Annual Ag Innovation Showcase, the world's premier event focusing on the convergence of agriculture and technology. <a href="http://www.agshowcase.com">www.agshowcase.com</a>
When	Sept. 12-14, 2016
Where	Donald Danforth Plant Science Center, 975 N. Warson Rd., St. Louis, MO
Who	<p>20 presenting companies representing some of the most promising and novel ag start-ups and research projects from soil to harvest to consumer in the areas of:</p> <ul style="list-style-type: none"><li>• Ag inputs and diagnostics – What farmers need to get crops going, from soil amendments, environmental inputs, pest control and the early diagnosis of diseases.</li><li>• Precision ag and automation – Digitizing the farm through data. Tools for the farmer to collect data, analyze and automate decision-making, creating an economy of resources.</li><li>• Processing technology – Making farmers' harvests more valuable, post-harvest.</li><li>• Alternative food systems – New ways of making the foods we eat.</li><li>• 20 presenting companies from Argentina, Canada, Israel, New Zealand, Spain, UK and the US</li></ul> <p>About the 20 selected companies –</p> <ul style="list-style-type: none"><li>• 84 companies completed the arduous application process, 18 made the cut</li><li>• Six of the 20 companies are women-led ag companies</li><li>• Half are foreign companies</li><li>• Three are from California</li><li>• Five companies have experienced Larta's <a href="#">CAPs</a> (commercialization assistance programs)</li><li>• 20 presenting companies from Argentina, Canada, Israel, New Zealand, Spain, UK and the US</li></ul>

## **Presenting companies and their thematic blocks**

20 presenting companies for 2016 Ag Innovation Showcase show a trend in ag inputs and diagnostics, but are from all aspects of the food value chain.

### **Ag inputs and diagnostics**

#### **1. Adjuvants Plus, Kingsville, Ontario, Canada**

EndoFine® (*Clonostachys rosea*) is a unique, naturally-occurring fungal organism that can rapidly colonize plant tissue as a true endophyte resulting in a more robust root system that promotes plant growth and improves yield.

#### **2. Aptimmune, Champaign, Illinois, US**

Aptimmune develops and markets a portfolio of revolutionary mucosal vaccines that provide superior protection and are delivered to the pig's mucosa, unleashing full immune potential by leveraging pigs' natural immune system to more effectively prevent disease where natural disease exposure takes place.

#### **3. Cotyledon Consulting, Surrey, BC, Canada**

Cotyledon Consulting's Stem Shock is a precision herbicide technology platform that uses RNA interference to safely control multiple weed species and is a viable biological solution to the growing concern of herbicide resistance. A woman-led business.

#### **4. Crop Enhancement, Cambridge, Massachusetts, US**

Crop Enhancement (CE) is a VC-backed company developing breakthrough green agrochemical formulations and coatings for organic and sustainable crop production. CE's field-tested technologies offer dramatically increased crop yield, reduced environmental impact, and economic benefits across the food production value chain.

#### **5. Growcentia, Fort Collins, Colorado, US**

Mammoth P is an organic, liquid, shelf stable, microbial soil additive that targets increased phosphorus cycling, and acts as a catalyst, unlocking bound nutrients, to maximize plant nutrient use efficiency, to significantly increase plant yield across many crops. Growcentia's novel product platform allows us to create multi-species microbial formulations that are inexpensive to produce and scale.

#### **6. PhylloTech, Madison, Wisconsin, US**

PhylloTech, LLC develops defensive enzymes into broad-spectrum topical sprays that can either replace or augment synthetic chemical pesticides and microbial biocontrols to solve the plant disease problem and ultimately increase crop yields. \$1.8M awarded in SBIR grants.

#### **7. SynShark, College Station, Texas, US**

Using their novel photosynthetic technology, SynShark develops pure product squalene, an emollient in cosmetics and vaccines, from American tobacco fields. Squalene is traditionally sourced through the exploitation of millions of deep-sea sharks for their livers. \$5M APRA-E funding from Texas A&M.

#### **8. XTB Laboratories, Davis, California, US**

XTB Laboratories, Inc. have developed early detection using mass spectrometers along with algorithms to classify trees that are sick with high classification diagnostic accuracy and specificity. Using gas emissions to non-invasively diagnose citrus trees with various diseases

before symptoms begin to show, they fill a gap where no diagnostic test is available with their level of accuracy.

**9. NeoGram, Argentina,**

NeoGram is focused on contributing to a more sustainable livestock production. Their project, GRAMAX, is a pasture with high digestibility, improving grass-to-meat conversion, with the potential to increase livestock productivity by 37% and reduce 58% of the greenhouse gas emissions per kilogram produced.

**10. EIWA, Argentina**

EIWA delivers UAV monitoring services to farm input supply companies. Specifically, Eiwa focuses on delivering high quality data to R&D departments of seed and agrochemical suppliers. Plant breeding and genetic improvement is done through trial micro-plots. EIWA captures thousands of data points per flight by extracting information on trial micro-plots through image processing, reducing data capture cost and considerably improving its quality.

**Precision ag, and automation**

**1. Arable Labs, Princeton, New Jersey, US**

Arable Labs PulsePods combine research-grade hardware with best-in-class developer tools and software to create a complete package for microclimate monitoring and resource management. Arable is a women-led business.

**2. Ec2ce, Seville, Spain**

Ec2ce is the first company to apply artificial intelligence to agriculture with the ability to anticipate the evolution of pests and diseases as well as productivity per acre.

**3. Food Origins, Salinas, California, US**

Internet of things (IoT) hardware devices and SAAS analytics to improve productivity of people, land, and varieties in handpicked crops.

**4. Ignitia, Stockholm, Sweden**

Ignitia has developed a preliminary, unique weather forecasting model that is developed specifically for West Africa. It produces weather forecasts that are about twice as accurate as existing global models (84% vs. 39%). Our main method of delivery has been through partnership with a mobile network operator (MNO), allowing us to send 2-day rain forecasts and seasonal predictions to smallholder farmers via SMS subscription.

**5. Outpost Central, Fresno, CA, US**

Outpost Central's Wildeye soil moisture monitoring solution is a cellular IoT device with unprecedented battery life, delivered to customers through a unique 'hardware as a service' business model, significantly reducing need the cost for farmers.

**6. PhytoSyntheix, Athens, GA, US**

PhytoSyntheix's technology identifies individual crops' lighting requirements and efficiently maintains the required light levels, ensuring optimum lighting conditions with minimal energy consumption.

## **Processing technology**

### **1. Koolmill, Solihull, West Midlands, UK**

Koolmill has pioneered a disruptive, low power, low loss, non-destructive cereal (rice) processing technology that has the potential to improve yield for smallholder growers globally. Koolmill offers a simpler, scalable milling technology contributing to food security, carbon reduction and poverty alleviation by enabling smallholder growers to become value added producers. Koolmill has the potential to transform a globally significant industry, moving to a sustainable future and lifting millions from poverty by rebalancing the established rice value chain.

### **2. SmartVision Works, Orem, Utah, US**

SmartVision Works's ECO-Features is a patent pending machine learning technology that is a vision solution to real world processing problems. Their vision systems can sort and classify anything from medical devices as small as a micrometer. They developed a master algorithm that can be utilized in any application, allowing them to develop custom solutions to new and unique vision problems, such as sorting produce, without the necessity of developing new algorithms. SmartVision is a women-led business.

## **Alternative food systems**

### **1. Kiverdi, Hayward, California, US**

Kiverdi uses chemoautotrophs to recycle CO/CO<sub>2</sub> into single cell protein that can be used as a fishmeal substitute. Kiverdi is a women-led business.

### **2. Bitwater Farms, Wilmington, DE**

Bitwater claims they can double the "crop per drop" by industrializing the insect protein industry. Starting with crickets, Bitwater gathers data on farmed insects to produce real-time analytics to support the success and yield of insect farms.

## **How the companies were chosen**

Panels of judges, plucked from the event's Advisory Committee of industry professionals, represent each area of ag expertise. Companies were judged on their ability to:

- Clearly define their innovation
- Communicate how their product or technology improves upon what is currently available
- Illustrate the degree of advancement of their technology
- Demonstrate a market need
- Share recent milestones
- Show their IP protection
- Present their business plan
- Present their team

## **About Ag Innovation Showcase**

Established in 2009, the [Ag Innovation Showcase](#) is the world's premier event focusing on the convergence of agriculture and technology. It brings together those with a significant stake in agriculture and agricultural technology – innovators, researchers, government agencies, corporations, investors and others – to promote investment in cutting-edge technology and biotechnology to meet the world's growing food supply needs. Twitter: [@agshowcase](#)

## **About Larta Institute**

[Larta Institute](#), founded in Los Angeles in 1993, is an internationally-recognized technology accelerator that has helped more than 10,000 companies transform ideas into commercialized, socially-beneficial innovations in science and technology, particularly in agriculture and the life sciences. With a global network of entrepreneurs, mentors, investors, industry leaders, research institutions, government agencies, and support organizations, Larta conducts commercialization assistance programs throughout the U.S. and in more than 20 countries. Follow Larta on Twitter [@LartaInstitute](#) and their blog [Vox: voices on the global economy](#).

#### **About BRDG Park at the Danforth Center**

Bio Research & Development Growth (BRDG) Park at the Danforth Plant Science Center helps life science companies bridge research, resources and relationships to achieve commercial success. In addition to providing world-class wet laboratories, office space and a prominent incubator, BRDG Park's location on the Danforth Center's campus facilitates access to the intellectual capital of top scientists, as well as to greenhouses, growth chambers, microscopy and proteomics facilities and other vital resources. Located in suburban St. Louis County, Missouri, BRDG Park is being developed by Wexford Science +Technology LLC, a BioMed Realty Company, a development company led by a seasoned team of real estate, finance and engineering experts specializing in major university facilities and science research parks nationwide. More information is available at [www.BRDG-Park.com](http://www.BRDG-Park.com) or [@BRDGPark](#).

#### **About Donald Danforth 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.

To keep up to date with Danforth Center's current operations and areas of research, please visit, [www.danforthcenter.org](http://www.danforthcenter.org), featuring information on Center [scientists](#), news, and the "[Roots & Shoots](#)" blog. Follow us on Twitter at [@DanforthCenter](#).

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