



Statement of Peter Nelson
On Behalf of Memphis Bioworks Foundation and its AgLaunch Program

House Small Business Committee
Subcommittee on Agriculture, Energy and Trade

For the Hearing On

“Restoring Rural America: How Agritech is Revitalizing the Heartland”

February 15, 2018

About AgLaunch®

AgLaunch attracts, creates, and grows agtech startups, facilitates the development of new agriculture and food value-chains, and builds collaborative farmer networks, with a commitment to intentional inclusion.

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Good morning and thank you Chairman Blum, Ranking Member Schneider, and members of the Subcommittee for the opportunity to share with you some thoughts regarding this important topic. My name is Peter Nelson, and I am the Vice President of Agricultural Innovation at Memphis Bioworks Foundation, a nonprofit organization focused on assisting early-stage life science companies grow their businesses by supporting and funding entrepreneurs and building critical components missing in a region's entrepreneurial ecosystem. This work has included incubating and supporting agricultural ventures for over a decade and providing thought leadership in the sector. My entire career has been focused on creating new ways for farmers to connect with technology and value-added opportunities and this is my passion. In my role at Memphis Bioworks, I am fortunate to have the opportunity to serve as President of AgLaunch, a joint initiative with Tennessee Department of Agriculture.

By creating the AgLaunch partnership, we have matched a regional player in life science technology commercialization with an extensive food and agriculture network, ensuring AgLaunch's work is substantiated by farmers and provides benefit to both the urban and rural communities.

AgLaunch envisions a transformed regional agriculture and food economy centered around farmers, innovation, and equity. It was conceived as part of Tennessee Governor Bill Haslam's Rural Challenge in 2012 and specifically named in the 2016 Governor's Rural Task Force recommendations focused on economic development. Supported by a diverse group of partners including Tennessee Farm Bureau and land grant universities, AgLaunch's mission is to attract, create, and grow agtech startups, facilitate the development of new agriculture and food value-chains, and build collaborative farmer networks, with a commitment to intentional inclusion.

While AgLaunch is anchored in western Tennessee, the agricultural leadership in the state understand that the problems and opportunities in this area are simply too important to not consider the regional impact of AgLaunch's work. This includes a particular focus on Memphis and the Mid-South Mississippi River Delta region, a five-state area that includes counties in Arkansas, Kentucky, Mississippi, Missouri, and Tennessee.

The Memphis and Mid-South Mississippi River Delta region is characterized by its highly productive agricultural system, first-class logistics capabilities, and a large number of food and agricultural companies. This region is also a home to chronic poverty, population decline, health disparities, and limited opportunity. The global agricultural innovation revolution is offering the ability to rethink how Tennessee and its surrounding region organizes assets to create a leading innovation ecosystem for food and agriculture.

As this Subcommittee addressed in its last hearing on this topic in October 2017, there is increasing interest and investment in the development of new agricultural technologies and the creation of new startup companies to bring innovations to market. This interest is driven by the need to feed

a growing population, changing food consumption patterns, increased pressure on natural resources, and the dramatic reduction of the cost of enabling technologies such as genomic sequencing and big data.

Farmers have traditionally been at the forefront of developing & implementing new innovations and technologies. These early innovations addressed direct needs on the farm and created solutions that could work economically and efficiently. Over time, the role of the farmer in adopting new technologies for their farms has been one of “customer” rather than “partner.” Currently, there is a large amount of new technology, much of it unproven, that gets presented to the farmer, and an increasing disconnect between those creating new innovations and the farming community. As was stated in the October 2, 2017 Memorandum to the Members of this Committee, “The most important player in the agtech industry is the most likely to be ignored as new technologies are developed, which has led to extraordinarily low rates of technology adoption by farmers.”

It is this disconnect between those who are creating new innovations and farmers that is dramatically lowering the probability of success for new agricultural ventures, which is in turn giving investors pause and slowing down the rate of adoption of these new innovations on the farm. The “Farm Centric Innovation Model” championed by AgLaunch is changing the agricultural investment thesis into new ventures and ensuring that farmers are part of the development process much earlier.

AgLaunch has initiated a 3-phase startup program called AgLaunch365, which leverages the farm-centric philosophy developed to propel agtech firms. Phase I concentrates upon developing the company’s business model and initiates the customer discovery process. Phase II allows teams to complete their minimal viable product and prepare for spring field trial plans with designated farmer partners through the AgLaunch Farmer Network. Phase III provides the participating startups with direct access to AgLaunch’s network of innovative farmers to actually “ground-truth” those products or services.

The value proposition for the startup to participate in AgLaunch programming is access to technology-embracing and curious farmers through the AgLaunch Farmer Network, which allows the startup founders to acquire direct, unbiased feedback and incorporate those observations, ideas, or modifications into the development of their product. Participating farmers get access to new technology and an opportunity to participate in way in the growth of the new innovation. The AgLaunch approach provides better alignment between those innovative firms and their potential to become a commercial success.

Since the creation of the program, dozens of companies have received support some of which are featured on our website at: <http://aglaunch.com/aglaunch-portfolio>. All of the AgLaunch startups

have received valuable insights and feedback from members of the Farmer Network and many are pursuing active partnerships with those producers.

A good example of the power of the AgLaunch Farmer Network is a startup company called AgVoice, which has a voice recognition technology for agriculture that simplifies crop scouting and other recordkeeping efforts and was validated through the AgLaunch Farmer Network. The validation process included answering simple questions like: “Will the technology work in the cab of a tractor or combine when it gets noisy?”, “Will the ear piece stay on your ear when you’re in the middle of scouting a hot cotton field?”, and “Will the lexicon be robust enough to record all the farm practices necessary and will the records be accurate?” The results of this real-world field trial generated data and farmer testimonials used to raise further investment and attract additional customers. The participating farmers were rewarded with opportunities for equity and distribution rights in the company, furthering engaging the farmer in the success of the startup.

The AgLaunch Farm Centric Innovation model and Farmer Network does not work without early stage capital sources that are aligned with AgLaunch’s approach. AgLaunch has worked to assemble several tools that can be leveraged and replicated in order to provide early-stage capital to agtech companies in the program. These include:

1. Working with Tennessee Department of Agriculture, AgLaunch is piloting a cost share program for farmers to get reimbursed for hard costs associated with on-farm trials of pre-commercial technology vetted and assisted through the AgLaunch program.
2. Supporting Memphis Bioworks’ venture capital firm, Innova Memphis with an AgTech fund specifically focused on early stage investments in rural-based innovative agricultural startups.
3. Encouraging the efforts in Tennessee of Launch Tennessee, a statewide entrepreneurial organization, and Life Science Tennessee to create an SBIR/STTR cost share program, as well as support applicants in the surrounding states that have similar programs.
4. Creating a network of other agricultural venture investors that have an interest in agricultural innovation and connecting them directly with farmers and the field trial network to better understand the AgLaunch pipeline.

The October 2, 2017 memorandum states that “agricultural regions are competing to be the next great innovation hub, which has spurred rural revitalization.” In many cases, agtech startups directly benefit from being located in regions closer to their customer base: the farmer. In so doing, they are building small businesses in rural areas and delivering innovation and technology solutions to a sector that needs it to remain competitive in a global marketplace. AgLaunch is

positioning Tennessee and the surrounding region to be a leading innovation hub, while also sharing key learnings to other states and regions through various initiatives to ensure that the Farm Centric Innovation Model has maximum impact towards changing the investment thesis for agtech and accelerated adoption rates of technology.

We believe in the role of a farmer as a partner in innovation, not just a first customer and this philosophy will change the current agricultural investment thesis. This will create more successful startups and bring forward solutions that more efficiently address real-world agricultural problems. Mr. Chairman, I would like to thank you again for inviting Memphis Bioworks Foundation to share with you the AgLaunch story and the work we have undertaken and look forward to addressing any questions that the committee members may have.