Foundation for Food and Agriculture Research
Public Board Meeting Session
Guest Speaker Remarks

OCTOBER 6, 2017
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The Foundation for Food and Agriculture Research (FFAR) Board of Directors thanks the 2017 Public Board Meeting Session guest speakers for presenting the following remarks to FFAR board members, staff and other attendees of the Public Board Meeting Session on October 6, 2017.
Elliot Roth, Founder, Spira Inc.

Remarks as prepared for delivery by:
Elliot Roth, Founder Spira Inc.
Thought for Food Ambassador
New Harvest Cellular Agriculture Farmer

Seed Funding for Cutting Edge Ideas

Esteemed Board Members and members of the community, it is a pleasure and honor to be here today speaking to you. Far too often decisions are made without considering the communities they serve, so I commend you on your openness and accessibility.

I am the founder of Spira, a company that creates technology to grow, process and engineer algae. While many might not consider me to be a farmer, I am the farmer of the future. My crops are not plants, vegetables and livestock, but cells themselves.

I am a big fan of the Foundation for Food and Agriculture Research and have spoken to Dr. Kur about alternative proteins. However, I believe one of the things that the Foundation is doing is focusing on fixing the symptoms of an ailing food system, rather than treating the root cause.

Many of the grants that the Foundation makes are in the millions of dollars to large, existing companies who are experiencing problems of providing enough nutrition for billions of people in the future. Those millions are swallowed up by these large organizations to fix specific problems, not to make the leaps necessary to bring our food system into the future.

We have a choice. I believe that the Foundation should invest in the future by creating funding for small seed grants and tap into existing networks that are working on the cutting-edge of innovation.

The reason is two-fold: that way the risk of investing in this research is spread out across multiple bets, and through this quantity of ideas, new projects can come to life. The second reason is that there is currently little money available for this type of research and without the funding, many of these ideas will die on the vine.

I am involved with some of these people on the very cutting-edge of food. Thought for Food creates a contest for entrepreneurs to reinvent the food system. With prize money totaling less than $50,000 each year, they’ve mobilized over 3000 students all across the world to start ventures related to food and agriculture. These ventures have raised millions and creates dozens of jobs.

New Harvest is a nonprofit establishing the field of cellular agriculture, growing food products without animals. They’ve funded dozens of research projects to grow everything from leather to chicken.

Both these organizations give small grants to researchers but need help from larger organizations like the Foundation in order to help even more small entrepreneurs like me start.

With your help funding these organizations, or establishing your own small seed grant program, you’ll enable future farmers like me to grow our businesses to solve the root problems of our food system. Thank you.
Marcia DeLonge, Union of Concerned Scientists

Remarks as prepared for delivery by:
Marcia DeLonge, Ph.D., Senior Scientist
Union of Concerned Scientists, Food and Environment Program

Opportunities to Invest in Agroecology

Good morning, and thank you for the opportunity to provide feedback on the current and future scope of work at the Foundation for Food and Agriculture Research.

FFAR’s stated objectives include “focusing on research questions that are not being answered elsewhere” and “utiliz[ing] social, physical, and biological sciences to answer research questions”. At the Union of Concerned Scientists (UCS) Food & Environment program, we are extremely excited about how these objectives create space for urgently needed research in the field of agroecology.

Agroecology is the science that explores how farms, ranches and broader agroecosystems can be managed so that farmers and ranchers are able to meet the triple bottom line and achieve transformative social and environmental outcomes, including increased resilience to extreme weather events such as droughts and floods. At UCS, we have been conducting research, including analyses of funding streams as well as a survey of scientists, to better understand the opportunities and challenges surrounding agroecology. Our findings have revealed that agroecology holds immense potential to solve a variety of challenges within the food system, as well as at the food-energy-water nexus. However, our work has also revealed that this research area is currently underfunded. In addition, nearly 500 PhD-level scientists working in related fields have signed a statement indicating that they agree that more public funding for agroecology research would be beneficial and is urgently needed.

Considering the current research needs for a more sustainable – or even regenerative – agricultural system, FFAR’s recent work in areas such as soil health and cover crops is significant and promises to deliver practical new knowledge. At the same time, other practices, such as complex crop rotations and perennial crops (including grass and agroforestry systems), sorely require more attention. In addition to identified research gaps within specific practices, we have found that there is demand for more interdisciplinary work that emphasizes social, economic, health, and equity issues. Furthermore, funding structures themselves could be updated to better support agroecology. For example, we found that there is a desire for new short-term exploratory grants for high-risk ideas, as well as for more support for the longer, complex projects that are common in agroecology.

We believe that FFAR may be in a unique position to address some of these needs, and hope to see future programs take on these essential underfunded areas of research. Thank you.
Organic Farming Research Foundation (OFRF) is excited to see the progress that the Foundation for Food and Agricultural Research (FFAR) has made. Due to the profound pressures on our food and agricultural system both domestically and globally, agricultural research funding is necessary to improve and strengthen our response and resiliency. FFAR’s systematic and multifaceted challenge areas help to support a full and diverse approach to structuring a holistic agricultural research agenda. We are encouraged that FFAR is taking a creative approach to fill in funding gaps that are not being addressed sufficiently due to traditional institutional funding sources.

We urge FFAR to ensure that scientific and farmer driven inquiry is supported in light of the potential challenges to securing the required research funding. As we work together, we encourage FFAR to incorporate the consumer and farmer needs and interests in their selection process, which may require an incorporation of social and biological sciences in a holistic interdisciplinary research process. We support a balance of basic and applied research activities focuses on addressing the challenges faced by our food and agricultural systems.

OFRF looks forward to working with FFAR to address how organic agriculture is a critical component to address the food and agricultural challenges we face domestically and globally, both today and in the future. We urge FFAR to keep in mind the ways that organic agriculture research fits into the FFAR vision.

Organic agricultural systems are by far the most easily leveraged platform for the rapid progress that must be made to address many of the challenge areas identified by FFAR, specifically in terms of Water Scarcity, Innovation Pathways to Sustainability, Healthy Soils, Thriving Farms and other biological and climatological imperatives faced by our agricultural systems. We are seeking ways that we can work together to address these issues and challenges, and encourage FFAR to consider the environmental, economic, and social benefits of organic agriculture and the opportunities it provides for farmers and ranchers.

Organic agriculture is rapidly expanding both in terms of production and booming consumer demand. Organic sales grew from $3.6B in 1997 to $49B in 2016. However, we are currently unable to meet this demand domestically, and farmers need additional organic specific research support. Increased investment in organic research can help American farmers meet the demand for organic food currently being supplied by imports from foreign producers.

Organic and conventional agriculture face many of the same issues. Research on organic and sustainable food systems, management practices, and biological interactions ultimately benefits both organic and conventional agriculture. By increasing research funding for organic agriculture, issues critical to the improvement of both conventional and organic producers can be researched and solved. Investment in organic agricultural research that leads to adoptable practices and technologies is critical to building a
sustainable organic food system, protecting the environment, and creating economic opportunity for rural communities.

OFRF recently completed two significant projects that identify future research needs based on farmer input and an analysis of research investments to date. These reports help to identify the research gaps and emerging needs of farmers and ranchers. OFRF looks forward to working with FFAR to address the research priorities outlined in these reports.

• Soil health and fertility management • Weed management • Nutritional benefits of organic food • Insect management • Disease management

We would be glad to share the findings of these reports with FFAR as we continue to work together to advance the science of organic production systems. OFRF looks forward to working with FFAR to address the research priorities outlined in these reports, to advance organic agriculture and bring more organic acres into production.

Thank You
David Welch, The Good Food Institute

Remarks as prepared for delivery by:

David Welch, Ph.D., Director of Science and Technology
The Good Food Institute

Hello, and thank you for the opportunity to share the following thoughts with you. My name is David Welch and I am the Director of Science and Technology for The Good Food Institute, or GFI. Similar to the focus of the Foundation for Food and Agriculture Research, our work is aimed at answering the question:

How can we feed the world’s growing population with safe and healthy foods produced through systems that do not negatively impact climate, biodiversity, and scarce natural resources?

We at GFI applaud the work FFAR has been doing to leverage both financial resources and public-private partnerships to support innovative scientific research that will address many of the critical challenges facing today’s food and agriculture system.

I would like to pose a friendly question: Is there an additional direction of research that is in line with the values reflected in FFAR’s current funding priorities and that could further stimulate innovation into safe and healthy foods?

In the study, "Shifting Diets for a Sustainable Food Future," the World Resources Institute estimates we will need 70% more food to meet global demand in 2050, compared to 2006. The authors argue that closing this 70% food gap will require both productivity increases and dietary shifts away from consumption of animal-based proteins, due to the fact that the production of animal-based foods involves much more resources and causes much greater environmental stress than the production of grains and legumes.

Despite rising awareness of the global impacts of our dietary choices, consumers continue to base their purchasing decisions primarily on price, taste, and convenience. The challenge, then, is to innovate and bring to market diverse non-animal protein alternatives that are as delicious, price-competitive, and convenient as their animal-based counterparts.

Thus, we encourage FFAR to consider language in future calls for research proposals that explicitly encourages innovative research focused on the areas of plant-based meat and clean meat--clean meat is real meat, but grown directly from cells, without the inefficiencies of raising whole animals. FFAR is well-positioned to bring these needed research areas to the forefront, given that they fit within the scope of FFAR’s already established challenge areas.

In March 2017, the National Academy of Sciences, Engineering, and Medicine released a report called, "Preparing for Future Products of Biotechnology." The report, which was researched and written by more than a dozen top scientists and peer reviewed by an additional 17, focused on identifying the products that are likely to be produced by biotechnology in the next 10 years. In the report, clean meat is flagged as an area
of high growth potential.

If successfully implemented on a global scale, a food system with a much greater reliance on plant-based and clean meat has the potential to sustainably feed 9.7 billion people by 2050, mitigate climate change and other pressing environmental problems, reduce animal suffering, and decrease global public health issues such as antibiotic resistance, zoonotic threats, and diet-related chronic disease.

We can identify no better way to invest in agricultural research, and we look forward to seeing how FFAR-funded research can lead the world in revolutionizing our global food and agricultural system through support of plant-based and clean meat research.

Thank you in advance for your consideration and for your commitment to supporting the creation of a healthy and sustainable food supply.
Thank you for the opportunity to speak today.
Research underpins every aspect of successful and viable farming, whether it’s a fifth generation commodity producer looking to diversify their crop rotation, or a beginning farmer interested in tapping into the huge unmet demand for grassfed beef, or communities seeking to become more resilient to external disturbances. Farmers rely on publicly funded agricultural research to help develop solutions for the challenges they face in their fields every day. Publicly funded research also informs food system issues related to nutrition, food safety, climate variability, and public health, as well as a plethora of other social and environmental issues.

In comparison to the enormous opportunity that sustainable agriculture represents for farmers and rural communities, federal investment in sustainable agriculture research, education, and extension has been miniscule. Without robust funding for public research that promotes ecologically-based production systems, scientific and technical innovation is stifled, and U.S. farmers and ranchers are unable to fully participate in and benefit from emerging markets for sustainably-produced foods.

FFAR provides all researchers and affiliated stakeholders a tremendous opportunity for advancement in several different areas. On behalf of the National Sustainable Agriculture Coalition, I would like to highlight three main areas of opportunity for FFAR: sustainability, equity, and participation.

1) Sustainability: As a coalition, we believe FFAR should focus on transformational agro-ecological research that is otherwise unlikely to be achieved by traditional public or private research programs. Research should emphasize innovative farming methods and systems as opposed to projects that have historically received robust funding.

It is important to resist the tendency to equate conservation methods and approaches with technological innovation. Technology certainly plays a role in advancing sustainability; however, we urge you to focus instead on systems-based approaches such as crop diversification, resource-conserving crop rotations, reintegration of crops and livestock, and management-intensive rotational grazing, to name a few.

2) Equity: FFAR should increase work with diverse populations and should magnify the needs of underserved communities, as defined by the people who live there and are working in those areas to do research and education. These projects should involve engagement with stakeholders in those communities to truly understand the needs of the community and work to address those needs efficiently, as opposed to prescribing solutions to issues that may not adequately address the needs of these underserved populations.

3) Participation: FFAR should focus all major research investments in agricultural production or conservation on projects that incorporate direct work with farmers or farmer-based organizations. Projects should work to support farm stewardship through direct consultation with those in the field.

Thank you for the opportunity to speak today and we look forward to future collaboration on important projects that efficiently utilize investment and advance agricultural research for the betterment of society.
Robert Campbell, Feeding America

Remarks as prepared for delivery by:
Robert Campbell
Director of Nutrition Assistance and Budget Policy
Feeding America

Feeding America is the nation’s largest anti-hunger nonprofit, serving 46 million people each year through our network of almost 200 food bank members. Our network serves every state in the country as well as the District of Columbia and Puerto Rico. Our food banks support over 60,000 food distribution agencies, such as food pantries, after school and summer programs, senior meal sites, and soup kitchens. We have a network of 2 million volunteers and provide 4 billion meals annually to people in need. Our mission is to not only provide emergency food assistance to those in need today, but to engage the country in the fight to end hunger.

Rescuing food that would otherwise go to waste and keeping it out of landfill has long been integral to our work to connect nutritious surplus food with those in need through our network of food banks and increase access to federal nutrition programs. We are leading innovation in food rescue across all sectors, rescuing 2.8 B lbs. of food annually. Our network of food banks provides a safe, controlled distribution network for recovered food with strict standards on third party food safety audits, traceability of foods for allergen or other food safety recalls, and the financial reporting necessary for donors to realize tax savings for their food donation. In the first year alone of implementing new regional produce cooperative sourcing models, we have seen an overall increase of 15% in our produce distribution, and expect this to continue as we are able to identify greater efficiencies in our produce sourcing, aggregation, and distribution.

As the Foundation for Food and Agriculture Research drives an ambitious agenda to support innovative science addressing today’s food and agriculture challenges, we urge you to leverage partnerships with organizations already working at scale, including those like Feeding America with deep reach into rural as well as urban America. Rural development and the issues around food access and affordability could be an important Challenge Area for the foundation to consider for the future. We also encourage deeper research of innovations that pair food rescue with meeting the goal of ending hunger in our nation. An example of an exciting initiative is Feeding America’s launch of regional produce cooperatives across the nation that eliminate barriers and improve efficiencies in rescuing and distributing produce to high need communities. These produce cooperatives can improve health for the people we serve and enable food banks to accept more produce donations, thereby eliminating food waste throughout the supply chain.

Thank you for the work you are leading and for this opportunity to comment today.


