



**FFAR**

**Foundation for Food and Agriculture Research**



**ANNUAL REPORT 2015**

# About the Foundation for Food and Agriculture Research

## Who We Are

The Foundation for Food and Agriculture Research builds unique partnerships to support innovative and actionable science addressing today's food and agriculture challenges. The Foundation was established by the Farm Bill passed in 2014 and charged with complementing and furthering the important work of the U.S. Department of Agriculture. Leveraging public and private resources, FFAR will increase the scientific and technological research, innovation, and partnerships critical to enhancing sustainable production of nutritious food for a growing global population.



To maximize the Foundation's impact potential, FFAR is committed to complementing and not duplicating existing research endeavors.

FFAR is a 501 (c) (3) non-profit organization governed by a Board of Directors, chaired by former Secretary of Agriculture Dan Glickman and with ex officio representation from the U.S. Department of Agriculture and the National Science Foundation.

## What We Do

- Fund cutting-edge research and development through grants and innovation challenges
- Build unique public-private partnerships
- Convene stakeholders and thought leaders to foster collaboration
- Build human capacity and inspire the next generation of food and agriculture scientists
- Utilize social, physical, and biological sciences to answer research questions

## Why We're Here

With 9.7 billion people projected to populate the world by 2050, our food system must evolve. Sustainably nourishing the growing global community demands transformative discoveries from the best and brightest scientists. The Foundation for Food and Agriculture Research brings together leading experts to identify and investigate the researchable questions whose answers have the potential to enhance the economic and environmental resilience of our food supply.

We know that innovative science cannot happen without collaborative thinking from a strong, diverse, and creative workforce. That's why we're working to elevate the visibility of food and agriculture research in the scientific arena. By supporting and spotlighting leaders breaking new ground in food and agriculture, we strive to inspire the next generation of scientists to pursue careers that help put food on every table.

We're also here to make progress. That means asking the right questions, convening the best and brightest minds to answer those questions, and seeing research through to successful implementation.

## How We Work

### We welcome you to the table.

Our commitment to inclusivity starts at the issue identification stage. As we finalized our initial research priorities, we sat down with more than 100 groups with a stake in this space to listen to different perspectives on the most pressing issues. We continue to welcome insight from all facets of our vibrant food system: from scientists conducting food and agricultural research, to farmers in the field, to members of the public deciding what to feed their families each day.

### We ask the right questions.

We seek researchable issues with the potential to yield pivotal pieces of knowledge that propel the food and agriculture field forward. For each project, we survey the food and agriculture field to ensure we are focusing on research questions that are not being answered elsewhere. We then look at the landscape and decide, project-by-project, how to convene the right partners to address a given issue.

### We leverage top talent and diverse perspectives.

To catalyze innovation, we believe we need not only brilliant minds, but also diverse perspectives tackling today's challenges in food and agriculture. It will take outside-the-box, interdisciplinary thinking to truly transform our food system. When soliciting research proposals or building a team, we strive to include experts with diverse backgrounds and in different fields, and perspectives from different sides and stages of an issue.

### We drive results.

Once we embark on a research project, tangible results become our guiding light. To drive socially feasible and economically viable solutions, we seek stakeholder input starting at the research design phase.

# Leadership

## First Executive Director



Chairman of the Board Hon. Dan Glickman and Executive Director Dr. Sally Rockey

In June 2015, a Committee of the Board of Directors and Foundation for Food and Agriculture Research staff selected the Foundation's first Executive Director, Dr. Sally Rockey. Rockey, an entomologist by training, came to FFAR from the National Institutes of Health where she led the largest extramural program in the federal government as deputy director for extramural research. She assumed her position at FFAR in September 2015. Dr. Rockey devoted a substantial amount of her first months as Executive Director to raising awareness about the Foundation for Food and Agriculture Research, making dozens of presentations and holding meetings with university, industry, commodity groups, and other stakeholders.

As executive director, Rockey began steering FFAR's approach to addressing challenges in food and agriculture through funding cutting edge research, fostering public-private sector collaboration, and supporting young scientists in the agricultural field. Her familiarity with the global scientific research landscape will continue to inform Rockey's defining role in charting FFAR's strategic direction.

Rockey will use her deep knowledge of research across many sectors to optimize the innovation and impact potential of research initiatives funded by the Foundation.

## Background: About Dr. Sally Rockey

Dr. Sally Rockey became the inaugural Executive Director of the Foundation for Food and Agriculture in September 2015. Prior to this role, Dr. Rockey was a leader in Federal research, overseeing the operations of the extramural programs in both agriculture and biomedicine. She spent 19 years with the U.S. Department of Agriculture where she held a number of positions within the Cooperative State Research, Education, and Extension Service. Very early in her career she became the head of the competitive grants program, overseeing the extramural grants process and portfolio. In her last few years with USDA she was the Chief Information Officer, applying her breadth of government knowledge to IT. From there she spent 11 years with the National Institutes of Health. As Deputy Director for Extramural Research, Dr. Rockey oversaw the operations of the largest Federal extramural research program and led groundbreaking initiatives and activities that have and will have a lasting positive impact on the research community.

Dr. Rockey received her Ph.D. in Entomology from the Ohio State University and did postgraduate work at University of Wisconsin prior to joining the government. She has devoted her career to improving people's lives through research and will continue her mission by seeing FFAR become an essential component of the scientific enterprise.

***“Dr. Rockey’s nearly 20 years of experience at the Department of Agriculture and her proven commitment to scientific integrity and innovation will be invaluable assets for the Foundation for Food and Agriculture Research during this crucial stage of development.”***

*-Chairman of the Board Hon. Dan Glickman*

# Board of Directors

The Foundation for Food and Agriculture Research Board of Directors met three times in 2015. At the June meeting, all officers of the Foundation for Food and Agriculture Research chose to renew their terms for an additional year. Current officers' terms will expire in August 2016.

## Ex officio Members



**Hon. Tom Vilsack**  
U.S. Department of Agriculture  
*Secretary of Agriculture*



**Dr. Cathie Woteki**  
U.S. Department of Agriculture  
*Undersecretary for Research, Education and Economics; Chief Scientist*



**Dr. Chavonda Jacobs Young**  
U.S. Department of Agriculture  
*Administrator, Agricultural Research Service*



**Dr. Sonny Ramaswamy**  
U.S. Department of Agriculture  
*Director, National Institute of Food and Agriculture*



**Dr. Jim Olds**  
National Science Foundation  
*Assistant Director for Biological Sciences; Designee of Dr. France Córdoba, Director*

## Voting Members | Executive Committee



**Hon. Dan Glickman, Chair**  
Aspen Institute  
*Executive Director, Congressional Program*



**Dr. Mark Keenum, Vice Chair**  
Mississippi State University  
*President*



**Dr. Kathryn Boor**  
Cornell University  
*Ronald P. Lynch Dean of the College of Agriculture and Life Sciences*



**Dr. Nancy Creamer**  
North Carolina State University  
*Distinguished Professor of Horticulture and Community-Based Food Systems*



**Ms. Pam Johnson**  
National Corn Growers Association  
*Past President*



**Dr. Chris Mallett**  
Cargill, Inc.  
*Corporate Vice President, Research and Development*

## Board of Directors | Voting Members



**Dr. Doug Buhler**  
Michigan State University  
*Director of Ag Bio Research; Associate Dean for Research for CANR*



**Dr. Debby Delmner**  
University of California - Davis  
*Professor Emeritus*



**Dr. Rob Horsh**  
Bill & Melinda Gates Foundation  
*Deputy Director, Agricultural Research and Development*



**Dr. Michael Ladish**  
Purdue University  
*Director of the Laboratory of Renewable Resources Engineering*



**Dr. Pam Matson**  
Stanford University  
*Chester Naramore Dean of the School of Earth, Energy & Environmental Sciences*



**Dr. Terry McElwain**  
Washington State University  
*Regents Professor in the Paul G. Allen School for Global Animal Health*



**Dr. Stanley Prusiner**  
University of California - San Francisco  
*Professor of Neurology; Director of the Institute of Neurodegenerative Diseases*



**Dr. Barbara Schaal**  
Washington University in St. Louis  
*Professor and Dean of the Faculty of Arts and Sciences*



**Dr. Mo Saif**  
The Ohio State University  
*Professor Emeritus, Food Animal Health Research Program of the Ohio Agricultural Research and Development Center*

# Outreach

With an executive director identified and two staff members on board, the Foundation for Food and Agriculture Research made stakeholder outreach and engagement a priority.

Between May and October 2015, the Foundation for Food and Agriculture Research staff and board met with more than 100 food and agriculture stakeholder groups to discuss feedback on the Foundation's initial research target areas and other ideas and input for the organization. In November 2015, the Foundation for Food and Agriculture Research launched a new website in order to communicate more effectively and consistently with stakeholders.

*During her first three months as Executive Director, Dr. Rockey made formal presentations to the following groups:*

- American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America
- California Agriculture and Food Enterprise - University of California Riverside
- Global Ag Development Working Group
- Interagency Working Group on Aquaculture
- National Academy of Sciences Board On Agriculture and Natural Resources
- National Agricultural Research, Extension, Education, and Economics Advisory Board
- USDA Small Business Commercialization Assistance Conference Participants
- White House Nat'l Science and Technology Council Foreign Animal Disease Threats Interagency Working Group

## Roundtable Session with U.S. Water Partnership Groups

FFAR hosted a roundtable session with U.S. Water Partnership (USWP) partners to solicit recommendations from key experts on specific areas of focus within FFAR's research areas, specifically within the water use efficiency category.

***Representatives from the following organizations joined FFAR and USWP to participate in the session:***

- Cargill, Inc.
- USDA, Research, Education and Economics (USDA-ERS)
- Robert B. Daugherty Water for Food Institute at the University of Nebraska at Lincoln
- The Nature Conservancy
- U.S. Department of Agriculture, Natural Resource Conservation Service and Agricultural Research Service
- U.S. Department of State
- World Resources Institute
- World Vision

### Objectives

- Share portfolio of USWP partners' food and agriculture priorities and experiences.
- Offer water-related recommendations to address FFAR's target areas.
- Outline potential opportunities for FFAR investment, research collaboration and areas to scale work.

### Outcomes

The discussion focused on research gaps and needs within important water-related challenges. The disparateness of data and the need for more analysis of existing data was a common thread throughout the discussion, and it was determined that one important area to further explore was big data, including leveraging advances in other sectors. For example, measuring remote-sensing data from satellites, ground sensors, center pivots, tractors, and mobile phones, and combining them with citizen science approaches. Pulling these data together in such a way that it could be analyzed in the context of specific research questions and also made accessible to producers could be beneficial. FFAR continues to explore this area of opportunity.

## Public Meeting



The Foundation for Food and Agriculture Research Board of Directors and staff welcomed input from eleven groups whose representatives spoke at the Foundation's first public board meeting session in October 2015.

Those who answered the Board's invitation to speak at the session were invited to prepare a three-minute address with input on FFAR's research target areas and other ideas and insights regarding how the Foundation might be most effective going forward.

Remarks focused on areas of agriculture research with pressing research needs and opportunities, including mitigating antibiotic resistance, preventing obesity through nutrition, protecting pollinators, organically controlling weeds, developing new weed management technologies to address herbicide resistance issues, understanding the animal gut microbiome, and other topics.

*Representatives from the following groups addressed the board at the public meeting:*

- AGree
- Agricultural Utilization Research Institute
- American Society of Animal Science
- American Veterinary Medical Association
- American Association of Veterinary Medical Colleges
- Dairy Management, Inc
- Iowa Soybean Association; North Central Soybean Research Program
- Nutrition Science Initiative
- Purdue University College of Agriculture
- University of Minnesota
- Weed Science Society of America

### FEEDBACK FROM THE COMMUNITY

***“Ultimately, you have the opportunity to help build research platforms that will launch the path-breaking science we need to address the production, nutrition, and environmental challenges of a growing world.”***

- Dr. Jay Akridge, Glenn W. Sample Dean of the Purdue University College of Agriculture

### THANK YOU

*The Foundation for Food and Agriculture Research staff and board express their sincere thanks to all those individuals who participated in the session and look forward to continued opportunities for engagement with stakeholders and experts in the food and agriculture arena.*

*A full transcript of remarks addressed to the Foundation for Food and Agriculture Research Board of Directors is available at <http://foundationfar.org/feedback-food-agriculture-research-stakeholders/>.*

# Research Portfolio and Programs

## Research Target Areas

Following its June board meeting, the Foundation for Food and Agriculture Research announced its initial research target areas seven subtopics that fall under the two umbrellas of “better health through food” and “more productive, sustainable agriculture:”

The following seven areas were determined by the board to be areas in which critical scientific gaps could be filled through FFAR-led public-private partnerships.

### More productive, sustainable agriculture

- Improving plant efficiency
- Optimizing agricultural water use
- Transforming soil health
- Enhancing sustainable farm animal resilience, productivity, and health

### Better health through food

- Achieving a deeper understanding of nutrition and healthy food choices
- Managing food production systems for enhanced human nutritional outcomes
- Spurring food system innovation



## Inaugural Programs

### Rapid Response Program

In 2015, the Foundation for Food and Agriculture Research announced a new program designed to fulfill the need for faster research and outreach in response to unanticipated threats to the nation’s food supply. The program is designed to quickly disburse funds for research and extension in the event of an emergency caused by agricultural pests and pathogens and to enhance the capacity to mitigate, contain and prevent outbreaks. By serving as a bridge to traditional funding, FFAR will deploy funds to address acute, national, and tangible emergencies in an effort to mitigate potential damage to the agricultural system.

The Rapid Response Program will capitalize on the Foundation’s close partnership with the U.S. Department of Agriculture (USDA) and ensure that FFAR’s crisis response efforts are complementary to those of the Department. A governance structure that enables this collaboration, along with the agility of the FFAR organization to quickly mobilize essential partners, will ensure that emerging issues are rapidly identified.

**Timeline:** Details on how organizations can take advantage of this program will be announced in 2016.

### Inspiring the Next Generation of Food and Agriculture Scientists

FFAR launched the New Innovator in Food and Agriculture Award as the Foundation’s first step toward its goal to support and inspire the next generation of food and agriculture scientists. This inaugural FFAR program was created to elevate the fields of food and agriculture science in the scientific arena by spotlighting the best and brightest New Innovators.

**Award Amount:** Up to \$200,000 per year for three years.

**Overview:** The New Innovator in Food and Agriculture Award will fund new faculty and their teams of graduate students and post-doctoral scholars to conduct innovative research with potential to expand the availability of food and facilitate the global practice of sustainable agriculture as the world’s population grows to more than 9 billion people by the year 2050.

**Partners and Applications:** Colleges and universities were asked to nominate one individual on their institution’s behalf in order to ensure a highly competitive pool of applicants in the award’s first year. Institutions were asked to provide FFAR’s required non-federal matching funds to their nominated New Innovator.

**Timeline:** In summer 2016, FFAR will award seven to ten recipients up to \$100,000 per year for three years with an additional \$100,000 required cash match. Applications opened in December 2015.



### The Importance of Supporting New Innovators

- All new faculty members to pursue innovative and transformational ideas uninhibited by the pressure of identifying their next grant.
- Cultivate a creative workforce who will train, encourage, and inspire future generations of agricultural and food scientists.
- Make agriculture an attractive field for aspiring scientists, whose challenges in securing funding often lead them to direct their research away from agriculture.

# Operations

## Milestones in 2015

The Foundation for Food and Agriculture Research hired the following staff in 2015:

- Sally Rockey, Executive Director
- Madeleine O'Connor, Director of Communications

The Foundation for Food and Agriculture Research secured permanent office space for the first time in September 2015.

## Advisory Councils

Building a research portfolio primed for optimal pursuit of the Foundation's mission to fund innovative and actionable research across its broad research target areas will require diverse and deep expertise and insight. Under Dr. Rockey's leadership, the Foundation issued a call for nominations to its first Advisory Councils. Council members will provide expertise and counsel regarding potential programs and work with FFAR staff to develop the most promising potential programming. Hundreds of experts and stakeholders were nominated and the Foundation began seeking scientific staff members to constitute and manage the Councils.

The Advisory Councils will support the Board of Directors by providing targeted expertise covering the Foundation's broad research portfolio. The Advisory Councils will provide the first level of review, after FFAR staff, as the Foundation considers specific challenges that are uniquely suited to be addressed through a FFAR research program.

## STATEMENT OF FINANCIAL POSITION

Foundation for Food and Agriculture Research  
Statement of Financial Position  
(unaudited)  
as of December 31, 2015

<b>ASSETS</b>		<b>2015</b>
Cash and cash equivalents	\$	198,819,506
Other Assets	\$	80,512
<b>Total Assets</b>	\$	<b>198,900,018</b>
<b>Liabilities</b>	\$	<b>30,658</b>
<b>Net Assets</b>	\$	
Unrestricted Net Assets	\$	198,875,474
Unrealized Loss on Bonds	\$	(6,114)
<b>Total Liabilities and Net Assets</b>	\$	<b>198,900,018</b>

www.foundationfar.org



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