Message from Gary Pierzynski, Associate Dean for Research and Graduate Education

The Knowledge Ecosystem

Note: Over the past year, as part of my duties as President of the American Society of Agronomy, I have written a number of articles for the society magazine, CSA News. Some of these articles may be of interest to the CFAES research community. The following originally appeared in the April 2019 CSA News, presented here with permission, and has been modified slightly to address the CFAES community more directly.

When the general public thinks of research, most likely, images of laboratories and people in lab coats come to mind. These stereotypes have been created in our schooling and through the media to address the who, how, and where questions about conducting research. The true world of research, of course, is much more complicated than this and can be thought of in ecological terms. Now, before you stop reading because you don’t see yourself as an ecologist, consider that this knowledge ecosystem consists of various combinations of information “producers” and “consumers” that involve everyone serving the mission of CFAES, regardless of what your daily duties happen to be. To extend the analogy one step further, producers and consumers are dependent upon each other and neither can continue very long without the other. The fact that CFAES is such an ecosystem, with valuable contributions to society, is one of the main factors that drives my enthusiasm for our profession. Further, it is extremely useful for all of us to see how we fit into this ecosystem so that our roles can have the greatest possible impact.

One can think of how new knowledge flows from the point of creation in a fashion analogous to how energy flows through the ecosystem and is extracted at various points along the way. Research creates new knowledge that is available in a journal article. Eventually, that knowledge may be incorporated into meta-analyses or review articles and possibly all the way to books as “textbook knowledge” that is accepted by us without citation. All along that pathway our members extract that energy, or knowledge, and put it to good use. Good research generates additional research questions that produce more journal articles. Applied research adapts that knowledge to local conditions, as well as generates even more research questions. Teachers, consultants, extension personnel, and others present that knowledge to students, producers, stakeholders, and other users of the knowledge so that they may benefit. The classrooms also produce the next generation of scientists (who may or may not wear lab coats!) and practitioners to ensure that the ecosystem continues to prosper. Each of us plays a role in providing ecosystem services in various combinations of generating new knowledge, applying knowledge, identifying knowledge gaps, or maintaining the critical mass of trained professionals for our future. Each of these ecosystem services has equal value in our continued success. I encourage each of you to consider your role in our ecosystem and ensure that you are taking full advantage of the entire system for your contributions.

2019 a Record-Breaking Year for Ohio State Research

The Ohio State University had a record-breaking year for research in fiscal year 2019. New data released by the Office for Research show research expenditures of $929 million for fiscal year 2019, an increase of 6.2 percent from the previous fiscal year. Industry-sponsored research totaled $159.9 million in FY2019, up 14 percent from the previous fiscal year. The numbers were submitted to the National Science Foundation’s Higher Education Research and Development (HERD) Survey, which tracks research and development expenditures at U.S. colleges and universities. Ohio State was able to achieve this milestone thanks to the efforts of the many talented Ohio State faculty researchers, whose work turns creative research and discovery into practical solutions for some of the world’s most pressing challenges. Read more, from Ohio State and the Columbus Dispatch.

2020 DC Days Trip—Application Closing Soon!

Each year, the CFAES Office for Research and Graduate Education and the Grant Development Support Unit (GDSU) arrange for CFAES faculty to travel to Washington, DC for 2-3 days in May. This trip allows researchers to become more competitive by visiting with federal program officers. Find more information and the request for applications on our website. Interested individuals should email a single PDF document containing a cover page, abstract, and a curriculum vitae to Pam Schlegel, schlegel.33@osu.edu.
FUNDING OPPORTUNITIES

NSF LONG-TERM ECOLOGICAL RESEARCH (LTER) - NEW URBAN SITE
Long-Term Ecological Research Program (LTER) studies are critical to achieve an integrated understanding of how components of ecosystems interact, as well as to test ecological theory. Ongoing research at LTER sites contributes to the development and testing of fundamental ecological theories and significantly advances understanding of the long-term dynamics of populations, communities, and ecosystems.
Deadline: December 4, 2019

INFAC T OFFERS LINKAGE AND LEVERAGE GRANTS
The initiative for Food and AgriCultural Transformation seeks to Link (forge transdisciplinary connections among Ohio State faculty, staff, students and external partners) and Leverage (bring new talents, expertise, and resources to our initiative as a result of our collaborative work) to address compelling food security challenges by building on our strength in climate, environment, technology, and agroecosystems; local to global engagements; new food economies; and campus food cultures and education. Proposal submissions must address specific themes within the topics of transforming food availability, food access, and food utilization as a foundation for community health.
Deadline: December 19, 2019

ENERGY PARTNERSHIP
As part of its commitment to academic collaboration, Ohio State Energy Partners contributes $810,000 annually to the university or affiliated philanthropic causes. Working with OSEP, the Energy Academic Collaboration Council requests proposals from Ohio State faculty, staff, and students to advance important university priorities and promote interdisciplinary and community collaboration. Awards between $10,000 and $50,000. Each will be awarded in health and well-being, leadership and professional development, sustainability programs, and arts and humanities.
Preproposa l Deadline: December 31, 2019

CHAIRE REQUEST FOR PROPOSALS - NOW OPEN
Request for Proposals for funding for four semesters for a graduate student are now available. In order to be eligible for funding, applicant teams must include one active member of CHAIRE as the principal investigator or co-PI. Proposals must align with CHAIRE's vision which is to develop guidelines to improve human-animal interactions and promote positive welfare for all. All interactions must be considered from both the human and animal perspective.
Deadline: December 31, 2019

OSU LIMITED SUBMISSION: OHIO ENVIRONMENTAL EDUCATION FUND
OE EF supports innovative projects that increase public awareness and knowledge about environmental issues and provides the skills to make informed decisions and take responsible actions. Environmental Education (EE) is based on objective and scientifically sound information and does not advocate a particular viewpoint or course of action. It teaches individuals how to weigh various sides of an issue through critical thinking, and it enhances their problem-solving and decision making skills.
Deadline: (Letter of Intent) January 8, 2020 (Application) January 15, 2020

THE ALLEN FOUNDATION, INC.
Allen Foundation, Inc., named in honor of William Webster Allen, operates under the laws of the State of Michigan with offices in Midland. Grants are limited under the terms of the foundation's charter to projects that primarily benefit programs for human nutrition in the areas of health, education, training, and research.
Deadline: January 15, 2020

ARTIFICIAL INTELLIGENCE RESEARCH INSTITUTES—USDA AND NSF JOINT OPPORTUNITY
Artificial Intelligence (AI) has advanced tremendously, allowing AI development to create new sectors of the economy and revitalize industries. Continued advancement, enabled by sustained federal investment and channeled toward issues of national importance, holds the potential for further economic impact and quality of life improvements.
Deadline: January 30, 2020, 9:30 AM

MULTI-STATE RURAL DEVELOPMENT RESEARCH OR EXTENSION PROJECTS NORTH CENTRAL REGION
The North Central Regional Center for Rural Development at Michigan State University announces a competition for two seed grants aimed at enhancing the ability of Land Grant institutions to positively influence the quality of life in rural areas of the twelve-state North Central region of the United States. Two grants will be awarded for up to $60,000 each. Up to $120,000 will be awarded.
Deadline: February 10, 2020
EPAP—NATIONAL PRIORITIES: RESEARCH ON PFAS IMPACTS IN RURAL COMMUNITIES AND AGRICULTURAL OPERATIONS

Per- and poly-fluoroalkyl substances (PFAS) are a diverse family of manufactured chemicals that are designed to resist heat, water, and oil. Used in a variety of consumer products and industrial applications, PFAS are highly water soluble, persistent and some may be bioaccumulative. There is evidence that exposure to PFAS can lead to adverse health outcomes in humans. EPA, as part of its National Priorities program, is seeking applications to support research to better understand the potential impacts of PFAS on water quality and availability in rural communities and agricultural operations across the United States. The focus of the RFA is to solicit research addressing the following areas:
1. Better understanding of PFAS occurrence, fate, and transport in water sources used by rural communities and agricultural operations
2. Novel or improved PFAS treatment methods in small drinking water systems and small wastewater treatment systems including influents, effluents, and biosolids/residuals.

Deadline: February 11, 2020

USDA AFRI: HIGHER EDUCATION CHALLENGE (HEC) GRANTS PROGRAM

Projects supported by the Higher Education Challenge Grants Program will: (1) address a state, regional, national, or international need; (2) involve a creative or non-traditional approach toward addressing that need that can serve as a model to others; (3) encourage and facilitate better working relationships in the university science and education community, as well as between universities and the private sector, to enhance program quality and supplement available resources; and (4) result in benefits that will likely transcend the project duration and USDA support.

Deadline: March 23, 2020

FOUNDATION FOR FOOD AND AGRICULTURAL RESEARCH (FFAR)

Rapid Outcomes from Agricultural Research: The ROAR program deploys funds to support research and outreach in response to emerging or unanticipated threats to the nation’s food supply or agricultural systems. ROAR participants may apply for funds in response to an outbreak for development of diagnostics, monitoring and mitigation strategies. This program is designed to provide stop-gap funding quickly in response to urgent threats.

Deadline: Ongoing Opportunity

Research Funding at the Research Commons

If you are thinking about your next research project, we encourage you to schedule a research funding consult and learn how to use SPIN, an extensive research funding opportunity database. SPIN contains over 40,000 opportunities from more than 10,000 sponsors. With SPIN, you’ll learn how to:

- Create and save customized searches that generate daily email funding alerts
- Organize and share funding announcements with colleagues
- Access an extensive Keyword list, allowing for greater flexibility in your searches
- Quickly locate Federal or non-Federal programs
- Locate all types of funding information, e.g., travel grants, fellowships, and other sponsored programs

Workday Grants

Many improvements related to grants management and administration will occur as Ohio State moves to Workday effective July 1, 2020. Faculty and some staff, along with colleagues in the Office for Research, all will use Workday to manage grants. One of the key features will be a new Principal Investigator (PI) Portal accessed via Workday. Faculty will:

- Use Workday to manage grants (internal, non-office of Sponsored Programs (OSP) and OSP grants), through post-award
- Obtain greater access to grant data management
- Access the PI Portal directly through Workday
- Access the Marketplace directly through Workday to purchase contracted items
- Have a designated bank card to purchase items for grants
- Receive in-system notifications of costing allocations for the grants they manage

The latest edition of Grant Writing News is now available.
The OSU Office of Research provides a campus-wide subscription to this excellent newsletter. The writers are experts in proposal development and the content is helpful to those preparing a grant proposal. The recommendations are especially helpful for those who are new to grant writing or want to enhance their proposal-writing skills. Visit http://go.osu.edu/grantwritingnews to access the current issue (OSU login required).

Topics Include:

- AI’s Really Big Footprint Across Disciplines
- Advice and Resources for Your NSF MRI Proposal
- Why Do Well Reviewed Proposals Get Declined for Funding?
- New Funding Opportunities
EDUCATIONAL OPPORTUNITIES

Cost Sharing on Sponsored Programs
December 10, 1:00-2:30 PM, 355 Jennings Hall, Columbus
126 Research Services (Wooster) - Zoom https://osu.zoom.us/j/691504165
Review of how to budget cost sharing in proposals, gain approval from the department and college, and book cost-sharing after an award is made.

2019 OSU Extension Annual Conference
Land Grant Fierce: Meeting the Challenge
December 16–18, 335 Hyatt Regency, 350 N High Street, Columbus
Being land-grant fierce means making sure that we incorporate the land-grant philosophy and mindset into our daily work with all Ohioans. Our ability to braid together our three missions of teaching, research, and extension to bring the knowledge and resources of The Ohio State University to all of our statewide campuses and beyond is invaluable.

See a full listing of upcoming events on our webpage.

RECENT AWARDS

Leah McHale, HCS; $496,910: Towards the development of high-yielding cultivars and germplasm with optimum oil and protein content and innovative oil attributes for the current market, SmithBucklin.

Gireesh Rajashekaravar, FAHRP; $181,639: Foodborne pathogens in small specialty farming produce and transduction of antimicrobial resistance genes in agricultural systems, Food and Drug Administration.

Matthew Smith, OSU Extension-ANR; $131,432: Supporting and expanding aquaculture in the Midwest through extension and outreach, Iowa State University.


Wishing you and yours a happy Holiday!

-The Office for Research and Graduate Education

REMINDER
OSU Offices will be closed on the following dates:
• December 24 & 25, 2019
• January 1, 2020

The GDSU is a free service provided to all CFAES faculty and staff. Our specialists offer guidance to researchers in planning and conceptualizing externally funded research projects, finding funding opportunities, and submitting well-crafted and competitive applications. For more information, see our webpage: grants.cfaes.ohio-state.edu.

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