Unit: Office of the Vice President for Research
Effective: April 2011
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Contact: vpr@iastate.edu

Investigator Handbook

A Guide to the Research Process at Iowa State University

This document is located on the Office of the Vice President for Research website. Departments contributing to the handbook include the following:

- Attending Veterinarian
- Grants Hub
- Environmental Health and Safety
- Iowa State University Research Foundation, Inc.
- Iowa State University Research Park
- Laboratory Animal Resources
- Office of Research Ethics
- Office of Economic Development and Industry Relations
- Office of Intellectual Property and Technology Transfer
- Office of Sponsored Programs Administration
- Office of the Senior Vice President and Provost
- Office of University Counsel
- Office of the Vice President for Research
- Sponsored Programs Accounting

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Table of Contents

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Introduction

The creative scholarship activity of faculty in discovery, learning and outreach contribute to the land grant mission of Iowa State University (ISU). Many of these faculty-initiated activities are funded by external sponsors. The mission of the Office of the Vice President for Research (OVPR) is to assist faculty and units in initiating and managing a variety of sponsored programs. The OVPR, working in collaborative partnerships with faculty and units, continues to increase sponsored research and scholarly and creative output, while promoting services that are user friendly.

Using this Guide
The Investigator Handbook is written to assist faculty and others to manage the entire grant process from conception to completion. The guide provides an inclusive summary of procedures and policies related to funding activities with interactive connections to individual websites that provide expanded information. It is the "how-to" guide for funding, and it includes information on identifying funding opportunities, preparing and submitting proposals, receiving and administering awards, understanding research administration and compliance, and obtaining patents and copyrights.

Commitment to Compliance
Iowa State University is committed to maintaining a culture of ethics, integrity, and compliance with the regulations governing research and teaching at institutions of higher education. The responsible and ethical conduct of research is critical for excellence, for maintaining public trust, and for preparing future faculty and researchers.

People and Places

Office of the Vice President for Research
The Office of the Vice President for Research (OVPR) promotes and advances research at Iowa State University, and the Office of Economic Development and Industry Relations (EDIR) furthers economic development through the transfer of research discoveries to the private sector.

A primary focus of the OVPR is to serve faculty and staff by supporting ongoing research in areas of strategic importance to Iowa State and fostering new initiatives. The focus of EDIR is to guide technology commercialization. The OVPR also assists researchers in securing federal, state and private funding by providing an array of administrative services and infrastructure.

Following is an overview of the units within the OVPR and other departments that provide services to support Iowa State's research and economic development endeavors. More detailed information about the services they provide can be found elsewhere in this guide.

Grants Hub
The Grants Hub (GH) provides research-related services to diversify and increase the research portfolio of the university. In particular, the Grants Hub aims to assist new researchers' pursuit of funding and help experienced researchers reach higher levels of funding. The GH accomplishes this by providing a broad range of services and resources to help researchers find, obtain and manage external funding. Many of the Grants Hub's functions are also designed to assist Iowa State's research administrators.

These functions include developing resources and offering training opportunities for research administration and offering training opportunities for research administrators.

Office of Sponsored Programs Administration

The Office of Sponsored Programs Administration (OSPA) provides comprehensive support services to faculty and professional staff for submitting proposals and establishing awards and amendments for sponsored projects. Researchers work with OSPA from pre-award (for all entity types) through the project close-out stages (for entities other than for-profit corporations and commodities) of research administration. In addition to managing the university's procedures for sponsored programs, OSPA provides guidance and training on topics such as proposal processing, developing project budgets, managing sub-awards and costing issues, and effective grant administration. OSPA also helps researchers interpret and comply with sponsor guidelines.

Office of Research Ethics

The Office of Research Ethics (ORE) provides administrative services and leadership for Iowa State's research compliance program, conflicts of interest in research, export controls, and research integrity programs. The ORE's mission is to assist the OVPR in providing an ethical research environment that fosters honesty, integrity and a sense of community. ORE serves as a resource for required training and education on research involving animals, humans and biohazards, and is the administrative home for the research compliance review committees. ORE's conflict of interest program facilitates the conduct of ethical research by promoting objectivity in research. Export controls are United States laws that regulate the transfer of designated items to foreign persons both within and outside the United States and to other countries. The export controls program prevents the unauthorized export of technology, software and goods that may adversely affect U.S. national security, foreign policy or economic advances. ORE partners with Iowa State's research community in effective and innovative ways to minimize and manage research risk. The ORE is also the administrative home for ISU's Research Integrity Officer (RIO). The RIO, reporting directly to the VPR, is the institutional official responsible for administering ISU's policies and procedures for investigating research misconduct and for developing and leading education and training of researchers in the responsible conduct of research.

Attending Veterinarian

Institutions conducting activities involving animals must have a veterinary care program which provides oversight of the well-being and clinical care of animals used in research, testing, teaching and production. The Attending Veterinarian (AV) has programmatic responsibility for the veterinary care, which includes assessment of animal well-being and effective management of animal procurement and transportation. The AV oversees: Preventive medicine (including quarantine, animal biosecurity and surveillance), clinical disease, disability or related health issues; protocol-associated disease, disability and other sequelae; surgery and perioperative care; pain and distress; anesthesia and analgesia; and euthanasia.

Laboratory Animal Resources

Laboratory Animal Resources (LAR) provides services for the care of animals used in research and education, thus ensuring humane animal care that is in compliance with federal, state and university laws, regulations and policies. Prior to initiating a project that involves animals, researchers consult with an LAR veterinarian. LAR services include a comprehensive veterinary care program for animals used in teaching and research; training in experimental techniques for faculty, staff, and students; assistance with experimental techniques; procurement of animals from approved sources; animal housing

provided in conventional, isolation or containment environments; daily husbandry; and transportation of animals.

Office of Biotechnology
The Office of Biotechnology (OBT) oversees core instrumentation facilities at Iowa State, with personnel available to assist researchers at every stage of their research projects. Core facility staff offer molecular biology technique workshops on a regular basis. The office maintains a database of researchers, to serve as a resource for faculty interested in developing interdisciplinary projects, and provides biotech youth outreach.

Sponsored Programs Accounting
The Sponsored Programs Accounting Office (SPA), as part of the Controller's Department, provides post-award financial services to Iowa State's principal investigators, administrative staff and external sponsors. SPA's services include establishing spending accounts for executed sponsored agreements, maintaining sponsored programs budgets in the financial system, submitting invoices to sponsors, following up on outstanding accounts receivable, preparing various reports (financial, patent, property and close-out) and verifying documented cost share. SPA also provides guidance on sponsor regulations, federal regulations and the allowability of expenditures. SPA provides training to Iowa State's staff on post-award financial administration of sponsored projects.

Office of Economic Development and Industry Relations
The Office of Economic Development and Industry Relations (EDIR) helps connect businesses and industries with the university's expertise and capabilities related to economic development and industry needs. Whether businesses want to solve a technical problem, develop a technology or product, commercialize a technology or obtain business assistance, EDIR can connect them to the appropriate experts and resources.

Iowa State University Research Foundation
A non-profit Iowa corporation, the Iowa State University Research Foundation, Inc. (ISURF), owns, manages, protects and licenses the university's intellectual property (IP)—the discoveries, technologies and inventions that emerge from research as well as the university's copyrights and non-logo trademarks. The ISURF Board of Directors has full power to manage, direct and conduct the affairs and business of the corporation. The Vice President for Research and the Vice President for Economic Development and Business Engagement for EDIR serve on the ISURF Board.

According to university policy, inventors or creators who are university employees (including student employees) assign IP to ISURF. ISURF then uses available legal avenues to protect and add value to these works, thereby providing incentives for industry to make further investments in the IP. ISURF works hand-in-hand with OIPTT to foster technology transfer and economic development.

Office of Intellectual Property and Technology Transfer
The Office of Intellectual Property and Technology Transfer (OIPTT) provides two support services: one relates to industry and commodity research contracts and the other relates to the transfer of university innovations to industry for commercialization.

The industry contracts team serves faculty and professional staff through negotiation and administration of for-profit industry or commodity sponsored projects. OIPTT negotiators work with researchers from

the first industry-university discussions through the contract development and negotiation process to the completion of industry sponsored research. OIPTT encourages industry sponsored research by offering different types of contracts with flexible solutions concerning intellectual property ownership, licensing and patenting rights. In addition to managing the procedures for industry sponsored research agreements, OIPTT also manages a university-wide request system for all material transfer and nondisclosure agreements for faculty and staff.

The intellectual property commercialization managers are the point of contact for new innovations and serve a vital role in the commercialization of research results. OIPTT also serves as an educational resource on technology transfer processes and the protection of intellectual property (patents and copyrights) and proprietary material (e.g., software and germplasm).

OIPTT works in concert with ISURF to facilitate and enhance the inventive and creative works of ISU employees and students and to transfer these works for society's benefit.

Center for Industrial Research and Service
The Center for Industrial Research and Service (CIRAS) provides a variety of services to assist Iowa manufacturing companies, including productivity improvement, product development, engineering, management practices, supply chain management, sustainability, industrial research and government contracting.

Pappajohn Center for Entrepreneurship
The Pappajohn Center for Entrepreneurship is the catalyst that brings together the people and ideas necessary for launching or growing successful enterprises, whether the undertaking is a student-initiated enterprise, a new small business, a high-technology start-up or a corporate spin-off.

Small Business Development Center
The Small Business Development Center (SBDC) provides free, confidential, customized business advice to businesses with 500 employees or less in all of Iowa's 99 counties. SBDC offers affordable workshops that teach practical skills and techniques, conducts business and market research, provides comprehensive information services, and offers access to subject matter experts in a variety of fields.

Research Park
The Iowa State University Research Park (ISURP) is a 220+ acre development with over a half million square feet of building space, just south of Iowa State campus. While ISURP is closely connected with the university, it operates independently to help its tenants reach proprietary goals. ISURP connects its tenants to many university and community resources, including facilities, expertise, technology, financing, recruiting and more.

ISURP strives to create an innovation community and provide an incubator for new and expanding businesses. ISURP also assists young Iowa-based companies to develop their potential and nurtures scientific and technological entrepreneurial ventures.

The Iowa State University Research Park Corporation was established in 1987 as a not-for-profit, independent corporation operating under a Board of Directors appointed by Iowa State University and the ISU Foundation. The corporation manages both ISURP and incubator programs.

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

Identifying Funding Opportunities

Finding Funding Assistance
The GH provides consultation services to help faculty find relevant funding opportunities through optimal searches on agency websites and searchable databases. Iowa State subscribes to several grant aggregation databases and resources to help identify funding opportunities. View and request the Finding Funding services here.

The OVPR contracts with several grant writing consultant groups, allowing anyone at Iowa State to engage their services without having to go through a competitive bidding process or set up a PSA. A list of consultants is available here.

Workshops and Seminars to Secure Funding
The OVPR offers many workshops to help faculty build strong research programs, write successful grant proposals and manage their awards. These programs and workshops have the following objectives:

- To enhance grant writing and grant preparation skills
- To help new faculty understand the culture of different funding agencies
- To learn from ISU faculty how to submit a successful grant proposal
- To learn about best practices in communicating science to the public

Details regarding the workshops and programs are available on the OVPR Events Calendar.
These workshops and seminars are presented by our own faculty and staff as well as by consultants and outside experts from federal agencies, foundations, universities and other research organizations.

THE OVPR may offer the types of support listed below:

Limited Submissions
Some funding agencies place limits on the number of proposals or applications that a university may submit in response to a particular solicitation. For example, the National Science Foundation (NSF) may stipulate that an institution can only submit a total of three proposals for a specific solicitation. The OVPR -- through the GH -- coordinates ISU's submissions to these programs through an internal competition process and sets internal deadlines for them. Check the Grants Hub Limited Submissions webpage regularly for updates. If you know that a particular funding opportunity has a limited submission requirement, but you haven't seen an announcement about the internal competition, please email fundingopps@iastate.edu. The Grants Hub also sends out a weekly email with upcoming limited submission opportunities.

Internal Funding Opportunities
The OVPR oversees a portfolio of internal funding opportunities for which ISU researchers are eligible. Current opportunities, RPFs and submission portals can be found on the Grants Hub Internal Funding page.

Cost Sharing Programs
The OVPR may offer the types of support listed below.

Submissions are managed through the Grants Hub's submission portal, available on the Grants Hub Internal Funding webpage under ***Cost Sharing Programs***.

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

Cost Sharing – Sponsored Programs

Iowa State (i.e., the departments, deans' offices, centers/institutes and/or OVPR office) will collectively provide cost-share support for sponsored programs only when it is *required.* The OVPR cost share program supports projects with a sponsor-mandated cost-share requirement, or projects where cost share is strongly encouraged and promises to create new opportunities for research at Iowa State. Institutional support will be considered for large (i.e., greater than $5 million), multi-investigator, multi-institutional grant proposals.

Requests to the VPR Office for institutional cost share should include the following information:

1. Estimated total project budget including F&A revenues and cost share for each year and a cumulative total
2. The F&A revenues that ISU would be expected to receive (for each year and a cumulative total)
3. The required amount of mandatory cost share, with an indication of any 'cash' requirements or 'in-kind' limitations
4. The names of the principal investigators (PIs) and co-principal investigators (Co-PIs)
5. The salary home(s) of the PI and Co-PIs, and the percentage of the salary paid by each unit (if a PI or Co-PI is paid by multiple units)
6. Copy of the solicitation (i.e., request for proposal [RFP], request for quotation [RFQ], request for application [RFA], broad agency announcement [BAA])

The OVPR or lead College will coordinate all contributions from the departments, colleges, centers/institutes, PI incentives and/or OVPR office, as appropriate. This may, in some cases, be less than the targeted amount of cost share, in which case the PI will have to find the remaining amount of cost share through in-kind contributions or other sources. (The OVPR and deans' offices would be willing to provide guidance and suggestions for how the in-kind contributions can be met.) Once all the details of the cost share are finalized, the OVPR will notify OSPA that the cost-share requirement has been met and agreed upon. If the proposal is awarded at a *significantly lower amount* than what was proposed, the cost-share contributions will be revised accordingly.

Cost Sharing that Involves Buildings or Land

In rare circumstances, buildings or land may be used as cost share. All proposals that include buildings or land as a part of the cost share must be approved by all parties to whom the buildings or land are assigned and by ISU's Senior Vice President for Business and Finance.

Cost Sharing – Faculty Development

The OVPR may contribute funds to other research development activities on campus. This includes retention packages, special instrumentation needs and visits to or from representatives of federal agencies.

Institutional Letters of Support

Faculty and other personnel with approved PI status at Iowa State may request letters of institutional support by notifying the OVPR via email at vpradmin@iastate.edu**.** PIs will provide a draft letter that includes the uniqueness of the proposed work, the strengths at ISU that make it well suited to house the work on this campus, and any other pertinent and useful information. Please allow **at least 3 to 5 business days** for the OVPR to prepare the final letter and obtain the appropriate signature.

Unit: Office of the Vice President for Research
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Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

Seed Grants
Seed grants are programs that provide funding for new research initiatives. Several colleges and centers provide seed grants for collaborative and interdisciplinary research that has potential to compete nationally for significant recognition and/or sponsored funding. Interested faculty are encouraged to contact their college dean's office for more information.

Additionally, the OVPR offers several interdisciplinary seed programs. Currently, these include: the ISU-UI Research Partnership Seed Grant Program, Bridging the Divide Seed Grant Program, Presidential Interdisciplinary Research Seed (PIRS) and Presidential Interdisciplinary Research Initiative (PIRI) Grant Programs, Bailey Research Center Career Development Award, M.B. Barry Cancer Research Award and McGee-Wagner Interdisciplinary Research Fund Award.

Information about each award, submission portals and deadlines are located at the Grants Hub Internal Funding webpage.

Using Electronic Resources
Many grants, particularly those supported by the federal government, are announced through web-based search systems. At ISU, the OVPR provides a webpage to assist you in obtaining funds for research. The External Funding Sources page contains a listing of sponsored programs and funding alerts from multiple sources. This webpage provides the opportunities most relevant to the ISU community.

Other Online Resources
You can access several databases that provide information about potential collaborators as well as funding opportunities. Links to these sources can be found on the Grants Hub website at Finding Funding Service under Resources, and some can be accessed directly from the database websites listed below.

- PIVOT-RP: The Community of Science Pivot grant search is the largest single repository of research funding information on the web. This video provides a brief overview for setting up an account setup for Pivot-RP.
- FedBizOpps: This site allows you to search, monitor and retrieve opportunities solicited by the entire federal contracting community.
- Grants.gov: Grants.gov provides a unified site for interaction between grant applicants and the U.S. federal agencies that manage grant funds.

Email Funding Alerts
Subscribe to the organizations listed below to receive timely email notices about funding opportunities in your interest areas. Agencies provide these resources free of charge:

- National Science Foundation Email Updates: This service lets you choose which documents you want to receive from NSF (i.e., program announcements, newsletters, etc.) and from which directorates.
- NASA Research Announcements: Enter your email address to subscribe to the NASA Service and Advice for Research and Analysis (SARA) mailing list for grant solicitations.

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
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- National Institutes of Health: This service emails you the table of contents of the *NIH Guide* that comes out weekly. Links are provided in your email messages for individual programs.
- Environmental Protection Agency—National Center for Environmental Research: Sign up for email announcements when requests for applications (RFAs) are posted.
- Grants.gov: This service provides notifications of new grant postings and updates. Grants.gov also allows you to electronically find and apply for competitive grant opportunities from all federal grant-making agencies. Grants.gov is the single access point for over 1,000 grant programs and provides access to approximately $500 billion in annual awards.
- SSTI Weekly Digest: This email subscription is provided by State Science & Technology Institute.
- FedBizOpps.gov: Search this site for more than 37,300 active federal opportunities from the various federal agencies.

Working with Industry

ISU has developed a complete system that fosters innovation with industry partners. The Office of Economic Development and Industry Relations (EDIR) is available to assist faculty and industry in accessing these resources. EDIR will facilitate faculty interactions with industry by scheduling company visits and conference calls, hosting companies on campus and assisting with the completion of contracts.

EDIR partners with the ISU Foundation to manage comprehensive relationships with industry. The comprehensive management program offers a single point of contact for industry to access ISU's resources. EDIR attends multiple trade shows and conferences throughout the year to network and promote ISU's research capabilities. EDIR is also engaged in a regional marketing effort with the Ames Economic Development Council, Greater Des Moines Partnership, Nevada Economic Development Council, Boone's Future and the Cultivation Corridor. In addition, EDIR coordinates two internal industry funding programs—the Regents Innovation Fund (RIF) program and an R&D Cost-Sharing Program managed by CIRAS.

Preparing and Submitting a Proposal

General Information
OSPA is the only university office authorized to sign proposals to external sponsors of research and other sponsored activities.[1] ISU faculty and staff are
required to route all proposals to be submitted to external sponsors through OSPA and are not permitted to submit proposals directly to sponsors without OSPA review and authorization.

[1] Gifts are accepted by the ISU Foundation. For more information on whether an award is a gift or a sponsored project, please see VPR Guidelines for Processing of Gifts and Sponsored Projects Funding.

Unit: Office of the Vice President for Research
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OSPA assists the PI with many aspects of proposal development, including review of sponsor guidelines and requirements, budget review, completion of sponsor-required representations and certifications, electronic submission to sponsor, and coordination between the sponsor and the PI as required.

For additional information on proposal submission, please see the OSPA Handbook.

GoldSheet Process
The university utilizes an electronic routing system, Autonomy Process Automation, to route proposals from the PI to OSPA via an electronic form, the GoldSheet. Proposal information submitted via the GoldSheet must be reviewed and approved by the PI, as well as by the lead departmental unit and colleges of the PI and Co-PIs. The GoldSheet is then routed to OSPA. It may take several days for the GoldSheet to arrive in OSPA, especially when there are multiple Co-PIs so **faculty are encouraged to route the GoldSheet in a timely manner**.

The PI, lead departmental unit and colleges may attach documents or notes to the GoldSheet it routes for approvals. At a minimum, the GoldSheet submission should include the following attachments:

- The funding opportunity guidelines or request for proposal or quotation (RFP or RFQ)
- The proposed statement of work
- The proposal budget and budget justification
- Any sponsored forms or certifications requiring an authorized institutional signature

If subawards are contemplated, a subawardees' statement of work, budget information and letter of support for each subawardee should also be attached and routed.

Proposals to Industry (For-profit Corporations)
ISU's principles that guide agreements with corporate sponsors outline the university's position on various topics that typically arise on corporate agreements, including issues related to intellectual property, governing law, indemnification, publication and insurance. OIPTT offers several tip sheets on collaborating with industry.

For proposals to industry sponsors, PIs should submit GoldSheets just as they would for proposals to federal or non-profit sponsors.

PIs should request a Confidentiality Agreement (CA/CDA/NDA) by completing and submitting the online CA request form to OIPTT for review and signature. Additionally, requests for use of ISURF intellectual property (IP), or any requests for Teaming Agreements by industry sponsors, should be forwarded to OIPTT at industry-contracts@iastate.edu. OIPTT has a number of different corporate-sponsored research agreements with flexible intellectual property solutions that are listed on the OIPTT For Iowa State webpage.

When industry has interest in a project, the PI prepares a GoldSheet, provides OSPA with the proposed statement of work, proposal budget and budget justification, and a transmittal letter to the sponsor if one is needed. The proposal budget should use the full Facilities & Administrative (F&A) rate unless an active master agreement or F&A exception exists. If the corporate sponsor accepts the proposal, OIPTT will work with the corporation on a sponsored project agreement.

Proposals to Foundations
ISUF Corporate Relations and Foundation Relations units
help faculty and staff who want to seek funding from foundations, corporations or other non-governmental sources. For details on how ISUF can work with you, see their FAQ.

Vice President for Research
The OVPR provides the following services related to the proposal submission process:

- Reviews and authorizes reductions in, or waivers of, facilities and administrative (F&A) costs
- Notifies OSPA of any OVPR/provost-provided cost-sharing or matching funds

College/Department/Unit
The following proposal services may be performed by the PI's college, department/unit, or a combination of these administrative units:

- Provides administrative support to PIs preparing proposals
- Reviews proposals submitted through the GoldSheet routing process for compliance with departmental, college and university policies
- Reviews budgets and makes corrections as needed
- Reviews and authorizes PI, departmental and college-authorized cost sharing as required

Principal and Co-Principal Investigators
Typically, the PI and Co-PIs are responsible for the following activities in the proposal preparation and submission process:

- Select a funding opportunity for submission and review guidelines and requirements
- Obtain access to the GoldSheet system and review the GoldSheet & Routing Manual and GoldSheet FAQ
- Register for access to sponsor submission systems with assistance from OSPA as needed
- Request assistance of department or college grant coordinators to prepare proposal applications, develop budgets, fill out required sponsor forms, provide sponsor-requested documentation and coordinate sub-awardee documentation
- Route proposal and associated documentation through the GoldSheet system
- Work with OSPA to submit the proposal prior to the due date
- Provide any sponsor-requested information after submission through OSPA

The Grants Hub
GH provides the following services to PIs in the proposal development and submission process:

- Proposal consultation, including reading and deconstructing an RFP, development of a proposal checklist
- Budget consultation and preparation, which includes submitting the GoldSheet (budget, justification, summary of work and subcontract (if applicable). GH staff will also serve as the point of contact for the OSPA on budget issues. Staff can also help with re-budgeting needed at time of award.

- Editing support - proposal proofreading to achieve a grammatically correct and professionally polished document, as well as edits aimed toward improving the proposal's clarity, flow and alignment with the solicitation.
- Graphics support – help developing proposal visuals, including but are not limited to, graphics depicting research concepts and graphics showing the organizational structure of the proposed project
- Assistance with development of Broader Impacts statements, share resources and connect PIs with relevant programs and individuals that can assist with the proposed Broader Impacts program.

The Library
As a part of the proposal process, several funding agencies (e.g., NIH, NSF, DOE, AHRQ, USDA-NIFA, USGS) require researchers to consider and describe how to provide long-term preservation of and access to their research data, in a **data management plan** (DMP). The library offers several resources to help researchers develop appropriate plans.

Office of Sponsored Programs Administration
OSPA provides the following services to PIs in the proposal development and submission process:

- Reviews GoldSheet and proposal for submission
- Obtains clarification from sponsors on guidelines as requested by PI
- To the extent possible, depending on time and workload, provides feedback to grant coordinators and PIs on missing documents, budget errors, application errors
- Reviews budgets for correct fringe benefit, tuition and F&A cost rates
- Reviews budgets for authorized cost sharing; requests documentation from PI of third party and/or university-approved cost sharing as required
- Assists PIs, Co-PIs and grant coordinators with required sponsor registrations and with GoldSheet user names and passwords
- Submits proposals to sponsors utilizing electronic systems
- Answers sponsor requests for information or documentation in coordination with PIs and grant coordinators
- Provides Authorized Institutional Signature to documents attached to the GoldSheet (e.g., letter of commitment, cover page, transmittal letter, sponsor forms)
- Provides a specialized transmittal letter for the PI to provide to the corporation when responding to requests for proposals (RFP) from industry

With the advent of Grants.gov, Research.gov, and other electronic submission systems, it is particularly important for PIs and their teams to work together with OSPA to ensure that all submission issues are reviewed and conform to sponsor requirements. Electronic submission systems are particularly sensitive to submission errors; if a proposal does not conform to sponsor requirements, it may be rejected by the sponsor. PIs should work closely with OSPA to avoid these problems.

GoldSheet Process
As stated in a previous section, the university utilizes an electronic routing form called the GoldSheet to route proposals from the PI to OSPA. The Goldsheet & Routing Manual and the GoldSheet FAQ provide detailed information on how to obtain access to the GoldSheet system and how to submit a GoldSheet.

The GoldSheet and all proposal documentation should be received by OSPA four business days in advance of the proposal submission deadline to allow OSPA to adequately review the proposal and ensure a successful submission. For proposals over $2 million, the GoldSheet should be received by OSPA two weeks in advance.

Cost-sharing or Matching Funds
If sponsor guidelines require cost-sharing or matching funds (e.g., cash contribution or time and effort by the PI and other key personnel), the PI should provide the details of any cost sharing to be provided, including cost sharing:

1. of the PI's time and effort,
2. from the department/unit,
3. from the college, or
4. from third parties.

All third parties providing cost sharing must provide a letter of commitment that provides details about their cash or in-kind contribution to the proposal budget. All matching funds or cost-sharing commitments based on the faculty member's time and effort must be noted on the GoldSheet.

Departments/units and colleges should also note approved cost sharing from their respective areas on the GoldSheet. The university does not provide cost sharing for projects on which it is not mandatory. The ISU Policy on Cost Share for Sponsored Programs provides definitions and university guidelines on cost share.

Cost-share requests, especially where OVPR is asked to contribute via institutional cost sharing, must be received at least three weeks in advance of sponsor deadline for consideration. Likewise, substantial cost share in the form of F&A Waiver request should be discussed with the OVPR well in advance of sponsor deadlines.

Receiving and Administering Awards

Receiving Awards
Award documents take many forms, depending upon the type of sponsor and project. These documents require review and signature by the institutional representative authorized to sign on behalf of the institution. At ISU, OSPA is responsible for signing all non-industry awards, and OIPTT is responsible for signing industry and commodity awards. OSPA and OIPTT may also need to negotiate the terms and conditions of an award agreement or contract if the terms are not consistent with the requirements of ISU.

Upon receipt of fully executed award documents or other proof of award, OSPA or OIPTT notifies the Sponsored Programs Accounting Office (SPA), which sets up the project's account. Once the PI receives

notification of the project's account number from SPA, funds may be encumbered or expended by the administering department/unit.

OSPA or OIPTT serve as a central point of contact for sponsor grant or contract officers regarding administrative matters throughout the duration of the project. OSPA or OIPTT also serve as facilitator for PIs in all matters regarding post-award nonfinancial administration. PIs are responsible for submission of all required technical reports by their due dates.

Roles and Responsibilities in Award Management and Monitoring

College

The college assists in award management by taking responsibility for the following:

- Performs fiscal and administrative oversight for sponsored awards within the college, including review of expenditures, procurements, appointments, etc., as necessary
- Provides resolution of issues related to post-award activities if not resolved in an appropriate or timely manner by the PI or department/unit (e.g., inappropriate charges made to award accounts; changes to, or errors in, reporting effort certification; late submission of deliverables or technical reports to sponsors; account overruns and sponsor payment concerns)

Lead Department/Unit

The PI's lead department or unit assumes the following responsibilities for award management:

- Assists PIs and Co-PIs with paperwork associated with incurring costs on sponsored program accounts, prepares requisitions, initiates disbursement vouchers, processes p-card transactions, etc.
- Reviews expenditure requests for reasonableness, allocability, and allowability on sponsored accounts
- Assists PIs with transactional review of award expenditures on a regular basis
- Assists PIs with monitoring of sponsored program accounts for cost overruns and encumbrances that exceed the award budget
- Assists PIs in resolving errors and cost overruns and adjusting encumbrances as necessary
- Oversees effort certification for employees, resolves effort discrepancies, corrects errors and processes revised personnel actions as needed
- Assists PIs and Co-PIs with production of reports, training material, or other deliverables required under sponsored awards

Principal and Co-Principal Investigators

Award management responsibilities of PIs and Co-PIs include the following:

- Understand award terms and conditions and abide by them
- Submit all required sponsored project deliverables and technical reports by their due dates
- Initiate paperwork associated with incurring costs on the award
- Initiate and route a new GoldSheet for additional funding on the award when funding was not previously proposed

- Work closely with Purchasing on the development of RFPs, services agreements and complex procurements as necessary
- Work closely with OSPA or OIPTT (for industry/commodity awards) on development and negotiation of subrecipient agreements
- Review subrecipient invoices for reasonableness and ask SPA to request additional cost information from subrecipients if costs seem excessive in comparison to work performed
- Monitor project account expenditures on a regular basis and initiate corrections to errors in a timely manner
- Review, approve or revise effort certifications
- Provide OSPA or OIPTT (for industry/commodity awards) with award or amendment documents when they are sent directly to the PI
- Submit through OSPA or OIPTT (for industry/commodity awards) requests for no-cost extensions, changes in award scope, budget revisions, award transfers or other actions requiring sponsor approval
- Contact OSPA or OIPTT (for industry/commodity awards) and/or SPA to assist with complex, unusual or problematic situations that arise on sponsored projects

Grants Hub
The GH provides the following services:

- Provides an award review, including a checklist and resources for managing the award
- Project management consultations for researchers and staff to set up processes and simple tools to successfully manage research projects

Office of Sponsored Programs Administration
OSPA provides the following award management services for researchers working with federal, state, and nonprofit (non-industry and non-commodity) sponsors:

- Negotiates award or amendment terms and conditions
- Notifies the PI of unusual or problematic award requirements
- Approves advance account requests and forwards them to SPA
- Provides notice of fully executed award documents to SPA
- Develops and negotiates subrecipient agreements upon receipt of required documentation and contact information from the PI or grant coordinator
- Provides fully executed subrecipient agreements to SPA
- Manages data associated with sponsored funding and produces monthly reports in conjunction with the OVPR office
- Assists PIs and Co-PIs with complex or problematic situations that may arise on awards
- Submits modification requests initiated by the PI to the sponsor for review and approval as required and provides documentation to SPA if/when approved
- Examples of post-award adjustments include the following:

- No-cost extensions of time
- Budget revisions and child account budget requests
- Changes in scope of the project
- Reductions of 25% or more in effort of key personnel
- PI disengagement from federal project for 3 months or more
- Award transfers to another institution
- Change in PI or key personnel

Office of Intellectual Property and Technology Transfer Industry Contracts Team
OIPTT provides the following award management services for researchers working with industry and commodity sponsors:

- Negotiates contract or amendment terms and conditions
- Notifies the PI of unusual or problematic contract requirements
- Reviews contract advance account requests and forwards them to SPA
- Provides contract setup packages to SPA
- Develops and negotiates sub-recipient agreements upon receipt of required documentation and contact information from the PI or grant coordinator
- Provides fully executed sub-recipient agreements to SPA
- Manages data associated with contracts and produces monthly reports in conjunction with the OVPR office
- Assists PIs and Co-PIs with complex or problematic situations that may arise on industry contracts
- Submits modification requests initiated by the PI to the industry sponsor for review and approval as required and provides documentation to SPA if/when approved
- Examples of post-award adjustments include the following:
  - No-cost extensions of time
  - Budget revisions and child account budget requests
  - Changes in scope of the project
  - Contract transfers to another entity
  - Change in PI or key personnel

More information about OIPTT post-award activities can be obtained by reviewing ISURF/OIPTT tip sheets. Additional information on post-award activities is found in the OSPA Handbook or under Awards/Post-Award Information on the OSPA website.

Sponsored Programs Accounting
Incoming faculty are often puzzled as to the distinction between OSPA and SPA, especially if they have been accustomed to one sponsored programs office at their previous institution. At ISU, OSPA handles *all matters related to proposals, as well as post-award matters requiring institutional signature authority*, such as agreement execution, award modifications and no-cost extensions. SPA manages *post-award financial matters*, such as account setup, invoicing and financial reporting. Some of SPA's responsibilities are listed below:

- Submits payment requests to sponsors

- Collects funds from sponsors and manages receivables
- Performs subrecipient monitoring of federal-sourced subawards
- Prepares financial reports (individual and collective), patent and invention reports, property reports, financial close-out reports and other financial reports as required by the sponsor (SPA does not prepare technical reports, progress reports, USDA Current Research Information System [CRIS] reports or hazardous materials reports.)
- Administers charging of F&A costs
- Administers incentive and Resource Management Model (RMM) distribution program
- Approves retroactive personnel actions, cost transfers and budget transfers
- Advises ISU PIs and staff on sponsor regulations, federal regulations and fiscal allowability of expenditures
- Coordinates, manages and responds to sponsor requests for post-award financial information, audits and financial and desk reviews
- Coordinate, collect and manage documentation of effort reporting, a process required by the federal government to verify that direct labor charges, cost share effort and F&A charges to federally sponsored projects are reasonable and reflect actual effort performed

Listed below are various tasks that SPA performs after an award has been executed and received from OSPA. These tasks are not to be performed by other offices at ISU. This list is not exhaustive but provides information on the more common tasks that occur in SPA.

Single Award with Multiple ISU Accounts
A single award may have more than one account either by necessity or by request. An example of an award that would require more than one account is an NSF award, which includes participant support costs. Participant support costs must be managed separately from the other grant funds as these costs have a different F&A cost rate structure.

Each award will have one “parent” account. SPA will establish “child” accounts by request when additional accounts are desired. As the lead PI, you may want to allocate funding and set up separate accounts for co-investigators. You can do this by routing a child account budget form with the required signatures to OSPA, who will then forward the form and any additional information to SPA to establish the child accounts.

Invoicing
At the time an account is established, SPA makes a determination as to whether the new award is fixed price or cost reimbursable. If the award is cost reimbursable and requires invoicing, invoices will be submitted to the sponsor on a monthly or quarterly basis for actual expenses incurred. On occasion, cost reimbursable awards will receive a lump sum payment at the beginning of the award or incremental predetermined payments throughout the life of the award. If funds for cost reimbursable awards are received in advance of actual expenses, any unspent funds at termination will be returned to the sponsor.

Fixed price awards may receive one lump sum payment or incremental predetermined payments during the life of the award. The payments may also coincide with deliverables, such as technical reports that

are submitted. When SPA determines that payments are linked to deliverables, efforts are made to communicate with the PI so that invoices are submitted on a timely basis. Fixed price awards are common to industry contracts and to federal flow-through subrecipients that are first phase Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) funding. Any residual funds remaining at award termination under a fixed price agreement are retained by ISU in accordance with applicable policies unless the work performed is unsatisfactory or the technical work is not complete. Fixed price awards often have termination clauses that need to be considered.

Financial Reporting

Financial reporting varies in scope and frequency, depending on the sponsor. Federal sponsors primarily require quarterly, annual and/or final financial reports on a standardized form (SF 425). These reports provide the sponsor with the cash balance, periodic expenses and receipts, as well as cumulative expenses, receipts and unobligated balances. Because of federal agencies' strict reporting deadlines, SPA prioritizes federal financial reporting during the quarter-end reporting period. Since the reporting requirements of non-federal sponsors are not standardized, they may require submission of sponsor template reports as well as other ad hoc reporting during the life of an award.

Other Post-award Reporting (Nontechnical Reporting)

At award termination, SPA may ask if there were any patent or invention disclosures made related to the project. If there was a patent disclosure, SPA will contact the ISU Research Foundation to obtain the disclosure information needed to complete the patent report. Patent reports may also include a section for reporting sub-recipient information, if applicable.

Equipment or property reports submitted by SPA to the sponsor generally consist of a summary of the equipment purchased on a project. This report may provide the details needed to help the sponsor determine the disposition of the equipment. Depending on the terms of the agreement, title to equipment may not vest with ISU. In rare instances, a sponsoring agency will lend ISU equipment to complete a project rather than provide funding for the acquisition of equipment. When equipment is received on loan, the PI must notify SPA directly so that the item is added to inventory records and the requisite reports are submitted accurately and timely.

Depending on the sponsor, there may be requirements for various types of close-out documents to be completed by SPA, including Contractor's Release of Claims forms, Sub-recipient Certification forms and other sponsor-specific forms.

Audit Coordination

Occasionally a sponsor will request to review or audit the financial activities of an award or a series of awards. SPA serves as the point of contact for these reviews or audits. In many cases these are simply "desk reviews" or "financial reviews." SPA will work with the PI and the administering department to provide the sponsor with transaction detail, supporting documentation and other requested items.

An infrequent but more burdensome type of analysis is an audit. This often entails an auditor being on-site conducting a detailed examination of an award or multiple awards, as well as the various administrative systems in place. The scope of an audit can vary and may depend upon the auditor's initial findings. SPA will coordinate efforts for ISU and will work directly with the auditor during the review or audit process. SPA should be contacted immediately if the PI or the administering department is given notification for a review or audit of a project.

Account Monitoring (limited)
Iowa State has decentralized most administrative processes, and, therefore, SPA does not monitor most expenses that post to sponsored program accounts. The responsibility for the allowability and appropriateness of expenditures lies with the PI and the administering department. SPA accountants are available for questions and concerns regarding the use of sponsored funds.

SPA accountants receive a variety of monthly and quarterly reports to assist in monitoring account balances, termination dates, advances and various exceptions. Additionally, SPA receives reports of overspent accounts and pending account terminations. After reviewing the information, the SPA accountant will send email notices to the PI and the administering department.

Furthermore, SPA accountants perform a cursory review of accounts at the time of invoicing to identify possible issues. As part of award close-out, they will review the last 90 days of transaction detail. If there are concerns regarding any final transactions, a notification is sent to the PI and the departmental administrator requesting further justification for the transactions in question or removal of expenditures. These issues must be addressed before a final invoice and/or final reports can be submitted.

Conducting Research Safely and Responsibly

Compliance Committee Approvals
All investigators—faculty, professional and scientific staff, undergraduate and graduate students—must obtain approval from the appropriate research compliance review committee(s) before initiating any work on the project. Investigators often overlook the fact that their research might need approval by a compliance committee. For example, a computer scientist needs approval to have human participants test a new keyboard style for fatigue. Likewise, an animal scientist needs approval to obtain and then euthanize animals for research, teaching or testing. Compliance approval is required regardless of whether or not a project is funded.

Compliance committee review times vary by committee, and investigators should consult the appropriate websites to ensure adequate time for the committees to review and approve a project before the planned start date.

Research Involving Animals
All activities involving the use of live vertebrate animals must be approved by the Institutional Animal Care and Use Committee (IACUC) prior to the use of the animals in research, teaching or testing activities in accordance with federal regulations set forth by the Department of Agriculture, the Public Health Service – Office of Laboratory Animal Care and/or institutional policy. If your project involves live vertebrate animals, find more information on the IACUC Webpage or contact the IACUC administrator, iacuc@iastate.edu, 294–9581.

The IACUC's vision is to ensure the humane care and use of animals while interpreting the regulations in a practical, meaningful, and reasonable manner that facilitates valuable research and teaching. The IACUC reviews all planned research, teaching and testing activities involving live vertebrate animals prior to initiation of the research project or teaching activity, approves protocols that meet regulatory

requirements and guidelines for humane animal care and use, inspects animal facilities, and monitors protocols to ascertain adherence to IACUC-approved protocols.

As part of the general responsibilities for conducting research, teaching or testing activities involving animals, the PI should do the following:

- Consult with the Attending Veterinarian (AV) regarding: procedures that may cause more than momentary pain and distress; anesthesia and analgesia; and euthanasia
- Submit an application for and receive IACUC approval before initiating the research, teaching or testing activity.
- Be adequately trained to perform study-specific procedures and responsibilities
    - Details regarding specific training requirements can be found on the IACUC training webpage
- Provide project personnel with IACUC-approved protocols describing research, teaching and testing activities
- Instruct and train staff and students in procedures to be performed in the IACUC-approved protocol
    - Details regarding specific training requirements can be found on the IACUC training webpage
- Maintain documentation of required training, including training for staff and students.
- Inform project personnel of the reasons and provisions for any precautionary medical practices advised or requested (e.g., vaccinations or serum collection)
- Ensure that all project personnel have completed the Hazard Inventory form and a medical questionnaire
- Perform a risk assessment and ensure that all project personnel are adequately informed of potential zoonotic diseases, risks associated with the materials used in the study, and allergens associated with research and teaching involving animals, (e.g., Q fever concerns when working with sheep, risks associated with working with 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine [MPTP], and long-term exposure to mice dander). All students and faculty that work with animals are encouraged to view the ISU website from the Center for Food Security and Public Health containing a detailed description of zoonotic diseases.
- Supervise project personnel to ensure that the required safety practices and techniques are employed
- Ensure that the research, teaching or testing activity is conducted in accord with the IACUC-approved protocol
- Obtain IACUC approval prior to implementation of changes in procedures and activities in the IACUC-approved protocol
- Maintain accurate records of animal use
- Maintain adequate records of research activities
- Maintain adequate records of veterinary care and make them available to the AV, clinical veterinarians, animal care staff and IACUC during inspection.

- Maintain records for a minimum of three years after completion of the protocol, or longer, if required by sponsors, institutional policy or other regulations
- Report any significant problems, violations of university policy or animal welfare regulations, or research-related accidents or illnesses. Some examples of reportable incidents are events involving a personal injury or loss of containment, accidental needle sticks, escape or improper disposal of animals used in research
- Submit annual continuing review documents if the project will exceed one year. A new application is required if the project will exceed three years.
- Ensure approval is renewed prior to the expiration date established by the IACUC; if approval lapses, all animal research, teaching, or testing activities must stop until approval is reestablished.

Research Involving Biohazards
Prior to beginning a project, any teaching or research activity that involves recombinant synthetic nucleic acid molecules or biohazardous materials must be approved by the Institutional Biosafety Committee (IBC), in accordance with the National Institutes of Health – G*uidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules* and/or institutional policy.

At ISU, the IBC must approve and issue a biohazardous materials use authorization for any teaching or research project that involves:

- use of recombinant or synthetic nucleic acid molecules, including transgenic animals or plants
- use of human or animal pathogens (e.g., bacteria, viruses, prions, parasites)
- use of soil, seed, plants, plant pathogens (e.g., bacteria, viruses, or parasites) or other material received under a USDA APHIS compliance agreement or permit
- use of biological toxins
- administration of experimental biological products to animals
- field releases of plant pests received under a USDA APHIS PPQ permit
- field releases of genetically modified organisms that are under a USDA APHIS PPQ or BRS permit (e.g., not commercially available GMOs)

Additional information is available on the IBC webpage or you may contact the IBC Administrator, bphc@iastate.edu, 294-9581.

The Institutional Biosafety Committee (IBC) also has responsibility for reviewing the biological and public health safety programs at ISU and for setting policies that comply with federal, state and local regulations.

As part of the general responsibilities for conducting research involving biohazards, the PI should do the following:

- Determine the appropriate physical and biological containment levels
- Submit an application for, and receive, IBC approval before initiating the research or teaching activity

- Propose appropriate microbiological practices and laboratory techniques to be used for the research or teaching activity
- Be adequately trained in good microbiological techniques
- Complete the required online training as detailed on the IBC training webpage
- Provide laboratory research staff with protocols describing potential biohazards and necessary precautions
- Instruct and train staff in the practices and techniques required to ensure safety and the procedures for dealing with accidents
- Supervise laboratory staff to ensure that the required safety practices and techniques are employed
- Correct work errors and conditions that may result in release of biohazards or recombinant or synthetic nucleic acid molecules
- Ensure the integrity of physical containment (e.g., biological safety cabinets) and biological containment (e.g., purity and genotypic and phenotypic characteristics)
- Adhere to IBC-approved emergency plans for handling accidental spills and personnel contamination as outlined in the Biosafety Manual
- Obtain IBC approval prior to implementation of any modifications or changes in research or teaching conducted in the lab
- Report any significant problems, such as violations of the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines), research-related accidents or illnesses, or new project information that impacts applicable NIH Guidelines to the IBC and the University Biosafety Officer (EH&S). Some examples of reportable incidents include a personal injury or loss of containment, accidental needle sticks, escape or improper disposal of animals used in research, spills of recombinant materials outside of the biosafety cabinet.
- Comply with applicable shipping requirements as outlined below:
    - NIH Guidelines for Recombinant or Synthetic Nucleic Acid Molecules per Appendix H
    - Export Control Regulations
    - Select Agent
    - USDA Animal Plant and Health Inspection Service permit requirements
    - Hazardous Materials Shipping Guide
- Submit annual continuing-review documents if the project will exceed one year. A full re-review of the study occurs every five years; at that time, a new application is required.
- Ensure approval is renewed prior to the expiration date established by the IBC. If approval lapses, all biohazardous research or teaching activities must stop until approval is reestablished.

Research Involving Human Subjects

Prior to implementation, all research involving human participants at ISU must be approved by the Institutional Review Board (IRB) according to with federal regulations set forth by the Department of Health and Human Services and the Food and Drug Administration. For guidance on seeking approval, see the IRB webpage or contact the IRB Administrator, irb@iastate.edu, 294-4566.

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

The purpose of the ISU IRB is to facilitate research that protects the rights and safety of human participants. To achieve this, the IRB advises investigators to design research projects that minimize potential harm to participants, reviews all planned research involving human participants prior to initiation of the research, approves research that meets established criteria for protection of human participants and monitors approved research to ensure participants are being protected. However, primary responsibility for assuring that the rights and welfare of the individuals involved in research are protected rests with the principal investigator. Also, faculty who assign or supervise research conducted by students or staff have an obligation to consider carefully whether those individuals are qualified to adequately safeguard the rights and welfare of participants.

PIs conducting or supervising human subjects research have the responsibility to:

- Design research protocols that:
  - expose humans to the least amount of risk necessary to answer the research questions
  - include or exclude populations based on scientific necessity, and not solely based on convenience or easy access
  - obtain the *informed* consent of human subjects in a manner that is understandable to them and that minimizes coercion or undue influence
  - protect privacy and confidentiality of human subjects and their information
  - include additional safeguards to protect the rights and welfare of individuals who may be vulnerable to coercion of undue influence (e.g., children, prisoners, cognitively impaired persons, persons who are economically or educationally disadvantaged)
- Obtain IRB approval prior to initiating any human subjects' research activities
- Ensure research is conducted strictly according to the IRB-approved protocol
- Obtain IRB approval prior to implementing any changes to the approved protocol, unless the change is necessary to eliminate an immediate hazard to human subjects. In that case, the change must be promptly reported to the IRB.
- Ensure project personnel are appropriately qualified and trained to conduct the research procedures, including subject recruitment and obtaining informed consent
- Provide adequate supervision of research activities to ensure the rights and welfare of human subjects are protected and IRB-approved protocols are followed
- Maintain records of human subjects research activities, including signed informed consent documents, for a minimum of three years after completion of the research, or longer, if required by sponsors, institutional policy, or other regulations
- Promptly report to the IRB and, if applicable, to the sponsor and FDA, any serious adverse events or unanticipated problems (e.g., incidents that are unexpected, serious and/or related or possibly related to the research)
- Promptly report to the IRB any noncompliance (i.e., failure to follow the approved protocol)
- Ensure approval is renewed prior to the expiration date established by the IRB; if approval lapses, all human research activities must stop until approval is reestablished, unless doing so will adversely affect the human subjects

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Research Involving Radiation

Research projects that involve the use of radioactive materials or radiation-producing devices must be authorized by the Radiation Safety Committee (RSC) to ensure compliance with federal, state and local regulations. Radiation research projects involving humans also need approval from the IRB and Iowa Department of Public Health. Radiation research involving animals requires approval from both the RSC and the IACUC. The RSC webpage provides more information, or you may contact the Radiation Safety Officer (RSO) at 294-5359.

Researchers planning to ship or receive radioactive materials, radiation-producing devices, or large laser systems to campus should contact the ISU EH&S before making shipping arrangements.

Incubator companies are not covered under ISU's radiation licenses. However, companies can enter into a regulatory oversight agreement with the approval of the RSC and the Iowa Department of Public Health.

The individual authorized by the RSC as the PI on a project using radioactive materials (RAM) or radiation-producing devices (RPDs) is responsible for all activities conducted under the scope of that authorization. The PI is responsible for ensuring that the following requirements are met:

- All individuals working on the project complete annual training and are supervised
- All individuals working on the project have been formally authorized by the RSC
- All rules, regulations, and procedures for the safe use of RAM or RPDs are observed on the project
- An accurate record of the types, quantities, and locations of RAM or RPDs in his or her possession is maintained
- EH&S is notified of any proposed changes in the storage or use of the RAM or RPDs prior to the implementation of such changes
- All uses of radiation are constantly evaluated to further reduce exposures to individuals (ALARA)
- All procedures for using RAM or RPDs are current and accurate
- All radioactive sources or source materials are secure from unauthorized access or removal

The individual user of RAM or RPDs is ultimately responsible for its safe use. The user will observe the following safety rules:

- Keep his or her personal exposure as low as reasonably achievable (ALARA)
- Wear assigned personnel monitoring devices as specified in the Radiation Safety Manual.
- Be familiar and comply with all sections of the Radiation Safety Manual applicable to his or her work
- Be familiar with the nature of all radiation sources in the work area and the extent of their potential risks and use the appropriate procedures to minimize the risks
- Monitor the work area frequently for contamination and document the results
- Clean up minor spills immediately—**spills must never be left for another person to clean**
- Dispose of radioactive waste in an approved manner
- See that labels are properly posted for all sources, containers and the work area

- Assist the laboratory supervisor in maintaining the required records and inventories
- Prevent unauthorized persons from having access to radioactive material and radiation-producing devices
- Protect service personnel, allowing no maintenance or repairs of the facility or equipment unless approved by the PI and the RSO
- Notify the PI and EH&S of any expected or unexpected difficulties that may affect the safe use of RAM
- Take no action that would interfere with the responsibilities of his or her laboratory supervisor
- Complete all required training
- Report spills and personal contamination to the RSO

Export Controls

The federal government limits the transfer of certain designated information, materials and services. Export controls are U. S. laws that regulate the transfer of the designated items to foreign persons both *within* and outside the U. S. and to other countries. Export control laws require a person to obtain permission from the federal government prior to exporting certain commodities or information, or exporting to certain countries or individuals. Export control restrictions generally arise for one or more of the following reasons:

- The nature of the export has actual or potential military applications or economic protection issues
- The federal government has concerns about the destination country, organization, or individual
- The federal government has concerns about the declared or suspected end use or the end user of the export

An "export" may occur in a variety of ways. For example, an export occurs when an item is sent by regular mail or hand-carried on an airplane outside of the country. An export also occurs when a set of schematics is sent via facsimile to a foreign destination; software is uploaded to, or downloaded from, an Internet site; or technology is transmitted via email to, or during a telephone conversation with, a person outside of the United States.

In addition, a release of technology or source code to a foreign national in the United States is "deemed" to be an export to the home country of the foreign national.

If you plan to export, it is important to know whether the commodity or information you are transmitting is of the type for which the federal government requires prior permission. Similarly, you need to determine whether the federal government has any restrictions on transmitting to the final destination or recipient. ORE can assist you with those tasks. More information about the export control regulations is on ORE's website.

Refer to "**EH&S'** Biological Security information about select agents and permits for transporting biohazardous materials.

Financial Conflicts of Interest

Conflicts of interest are a normal part of an active and vibrant university. With increasing emphasis on outreach and economic development, more university personnel are becoming involved with external entities or starting their own companies. ISU strongly encourages these activities. However, they bring with them financial conflicts of interest or perceptions of conflicts of interest that need management to avoid harm to the persons or entities involved.

ISU manages conflicts of interest (both real and perceived) by requiring disclosure of the potentially conflicting situations and then, if needed, the creation of a Conflict of Interest Management Plan. **All faculty, postdoctoral associates, graduate assistants, P&S, and merit staff are required to disclose annually**, or whenever their situation changes, whether they have a conflict of interest or not. The conflicts of interest disclosure is accomplished through an electronic process available at https://login.iastate.edu through 'COIC'. After clicking on "COIC", employees go to the COIC tab, and click 'COIC Disclosure Form'.

For further information on conflicts of interest, visit the Provost's web page on conflicts of interest or send an email to coi@iastate.edu. You may also call ORE at 294-7793.

Responsible Conduct of Research Training

The National Science Foundation (NSF) requires responsible conduct of research (RCR) training for all undergraduates, graduates and post-doctoral fellows who conduct research supported by NSF funds. All institutions submitting applications must certify at the time of submission that plans are in place to provide appropriate training and oversight of the RCR training.

Similarly, the National Institutes of Health (NIH) requires that all trainees, fellows, participant, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, or dissertation research grant must receive RCR training. This requirement also applies to new faculty, mid-career faculty and senior faculty. Plans to meet the RCR requirements must be specified in the principal investigator's proposal application.

The National Institute of Food and Agriculture (NIFA) requires RCR training for program directors, faculty, undergraduate students, graduate students, postdoctoral researchers and any staff participating in the research project. Grantees are required to maintain documentation of such training.

For more information about the RCR requirements and courses available to satisfy the requirements, refer to the OVPR webpage or you may contact the OVPR Research Development Coordinator at 294-7540.

Research Misconduct

Conduct that jeopardizes research integrity undermines the advancement of knowledge, erodes public support, wastes resources, and compromises health and safety. For this reason, ISU prohibits research misconduct and encourages all members of the university community to report observed, suspected, or apparent research misconduct.

Research misconduct means fabrication, falsification or plagiarism in proposing, performing or reviewing research or in reporting research results. It also includes ordering, advising or suggesting that subordinates engage in research misconduct. The misconduct must depart significantly from accepted practices of the relevant research community and must be committed intentionally, knowingly, or recklessly. It does not include honest error or differences of opinion.

Allegations of research misconduct are handled by a Research Integrity Officer (RIO) appointed by the OVPR. All members of the university community are encouraged to report observed, suspected, or apparent research misconduct to the RIO. If you are unsure whether a suspected incident falls within the definition of research misconduct, you may meet with or contact the RIO to discuss the suspected research misconduct. Contact information for the RIO is available from the OVPR office. Research misconduct concerns may also be reported via the ISU Compliance and Ethics Hotline.

All information regarding possible instances of research misconduct, including the identity of the person accused and the individual making the allegation, is confidential. ISU prohibits retaliation against individuals who make allegations of research misconduct in good faith and any witnesses or others who cooperate in good faith with research misconduct proceedings. Research misconduct guidelines and information are included in Chapter 7 of the Faculty Handbook and in the Research & Intellectual Property section of the Policy Library.

Reporting Concerns
ISU has several avenues in which individuals may report concerns. Reportable incidents might include issues involving animal welfare or biohazard control, radiation safety concerns, or concerns about the safety or well-being of human participants in research. Violations of export control laws or conflict of interest policies should also be reported. Concerns may be reported to any compliance committee chair or member, the director, ORE or the OVPR. Animal welfare issues may also be reported to the Attending Veterinarian. Individuals may also report concerns through the ISU Compliance and Ethics Hotline.

Environmental Health and Safety

The mission of EH&S is to prevent illness and injury, protect the environment and connect the university to the message of safety and preparedness. Services offered include laboratory safety, chemical waste management, biological and radiological safety, OSHA and EPA compliance, safety training and occupational health services.

Research Safety
Principal investigators, laboratory supervisors and instructors are responsible for the following:

- Knowing Iowa State's commitment to a safe workplace
- Ensuring safe work practices for you and your staff
- Assessing and identifying all chemical, biological, radiological and physical hazards
- Completing a Hazard Inventory form for enrollment in the Occupational Medicine Program
- Establishing safety precautions and safe laboratory procedures
- Providing and documenting initial and continuing safety training
- Informing students and staff of emergency evacuation routes
- Reporting all accidents and injuries in the workplace

Laboratory Safety
The safe conduct of research at ISU begins with the researcher. The laboratory safety page on the EH&S website assists researchers in maintaining a safe and compliant laboratory and provides information about the following topics:

- Regulatory compliance

- Chemical and biological inventories
- Permits
- Personal protective equipment (PPE)
- Safety training
- Emergency planning
- Safety manuals
- Proper waste management
- Standard Operating Procedures (SOPs) – development and library

The Laboratory Safety Manual serves as the overall guidance document and outlines appropriate practices, university policies and other regulations that must be followed in a laboratory setting.

Pre-award Certifications of Environmental Health and Safety
Many federal and state agencies require that additional certifications and assurances of environmental, health and safety compliance accompany a grant proposal at the time it is submitted. In order to sign these assurances, EH&S will verify the following:

- Compliance with the ISU Laboratory Safety Manual
- Current laboratory safety survey (with no outstanding deficiencies)
- Completion and documentation of required training for all staff in the laboratory

Please contact EH&S **at least two weeks in advance** to make sure these compliance checks can be completed.

Occupational Medicine Program
The Occupational Medicine office provides medical surveillance and consultation to university employees who work with materials and under conditions that have identified and/or regulated risks. EH&S coordinates the participation of ISU employees in the Occupational Medicine (Occ Med) Program.

Generally, all personnel who may be exposed to hazards in the workplace must complete a Hazard Inventory for Occupational Medicine Surveillance form. New personnel should complete this form at the beginning of their employment; completion of the hazard inventory form will initiate enrollment into the program.

If you need additional safety resources, please contact EH&S at 294-5359.

Select Agents
Federal regulations (42 CFR parts 72 and 73, 7 CFR part 331, 9 CFR part 121) govern the use, transfer and storage of select agents and toxins at ISU. Any PI who intends to use, transfer or store select agents and toxins must first contact the responsible official (RO) in EH&S in order to register personnel and facilities before research may proceed. For more information about select agent use, please see Select Agents and Toxins on the EH&S website or contact EH&S at 294-5359.

Refer to ORE's Export Controls website for more information about federal regulations that may apply to sharing or transferring information, items of military significance or national security, or protections of trade to either certain nationalities within the university or the U. S., or to certain countries. For example, select agents are also controlled under the export control regulations.

Permits for Importing and/or Transporting Biohazardous Materials

Special federal permits may be required for importing and/or transporting human pathogens, animal pathogens, animals or animal products, plant pathogens or plant pests, plants or plant products. Make sure to check on permit requirements **well in advance** of when you will need the material in question because some permits can take several weeks to receive. Contact a permit specialist in EH&S at 294-5359 with any questions about shipping and/or required permits for biological materials.

Refer to ORE's Export Controls website for more information about federal regulations that may be applicable to the sharing or transfer of information, items of military significance or national security, protections of trade to either certain nationalities within the university or the U.S., or to certain countries. For example, transfer of certain plants, animal or human pathogens; viruses; toxins; fungi and bacteria; etc., are controlled under the export control regulations.

Research Outcomes

This section provides information on policies, procedures and management of the research results.. Research activity at the university results in a variety of outcomes and the knowledge generated may take various forms: (1) tangible results such as biological materials, software code, algorithms and publications; and (2) intangible results such as inventions. An important objective of the research activity at ISU is the transfer of knowledge to the public and to our students. The best mode of transfer for public use may be through scholarly publication or public distribution.

However, in many instances, commercially promising results may not be utilized by the public unless industry invests in further technology and marketing research and development. To entice industry to make further investments in research results, the commercialization function of the OIPTT)and the ISURF may add value by protecting the results under intellectual property or proprietary protection laws.

Rights in Data

With few exceptions, original data resulting from research activity are owned by the university, and the researcher is the steward and custodian of that data for the university. Data includes anything that results from the research. Examples are recorded information in any form, technical data, software code, flow charts, laboratory worksheets, memoranda, study protocols, DNA sequences, viruses, cell lines, plant germ plasm, etc. Both the university and the researcher are responsible for the retention, maintenance and appropriate dissemination of the data. Research or other agreements may dictate what is done with this data.

Any exception to the ownership of data by the university is carefully scrutinized by the OVPR for the potential effect on future research at the university, publications and students. Any exception to ownership of data will be contained in the funding agreement. The Council on Governmental Relations (COGR) has published an article, "Access to and Retention of Research Data: Rights and Responsibilities," which contains additional information. Reference the Iowa State University Policy Library Research Data Policy for guidance applying to all ISU personnel and encompassing all research data produced under ISU projects, whether funded through external or internal funding sources, or unfunded.

Lab notebooks contain original data and should be maintained by researchers. See "Tip Sheet on Protecting Research Information & Materials"

Although the university may own the data, researchers have the right to publish the data. These rights may be limited by the funding agreement or may require a short delay if intellectual property protection is sought. If patent protection is obtained, the original data should be maintained for the life of the patent in the event the validity of the patent is challenged.

Intellectual Property and Tangible Research Materials
Intellectual property and tangible research materials are natural outcomes of research activity. Intellectual property refers to the intangible results of creative thinking, such as inventions, literary and artistic works, software code, designs, certain business methods and processes, symbols, and trade names. Intellectual property laws protect these intangible results when certain criteria are met and convey certain ownership rights to the owner of the intellectual property.

Tangible research materials include biological materials, engineering drawings, computer software, integrated circuit chips, computer databases, prototype devices, circuit diagrams, equipment, and material composition over which one may exercise ownership or control. Tangible research materials may be subject to intellectual property rights.

Funding agreements may place obligations on the researcher and the university with regard to these intellectual properties and tangible research materials and will likely provide certain rights to the sponsor of the research. For example, the U.S. federal government always retains certain rights and places several obligations on the recipient of its funding. It is important that each PI read the funding agreement and understand the obligations and rights of the researcher and the sponsor**. While it is not the researcher's responsibility to meet all the obligations under the funding agreement, it is the researcher's obligation to report intellectual property to ISURF.** Once intellectual property is reported, ISURF manages the obligations to the funding source on intellectual property.

Patents and Copyrights
Patents and copyrights are the most common forms of intellectual property used to protect university research results.

Patents
A patent for an invention is a formal grant of a property right issued by the government of a country to the first inventor to file a patent application. The United States Patent and Trademark Office (USPTO) grants three types of patents: utility, design and plant. The patent grant confers the right to *exclude others* from making, using, offering for sale or selling or importing the invention in the U.S. Additional information about patents can be found on ISURF's website here.

Copyrights
Copyright refers to the body of laws that convey ownership in the *expression* of an original work of authorship at the time it is fixed in a tangible medium. No formalities are required in order to obtain copyright protection. Once a work of authorship is fixed in some form that can be communicated, U.S. copyright laws protect it. Copyright laws will cover your scholarly writings,

software code, websites, photographs, music, drawings, and artistic works. With some limitations, the copyright laws give the copyright owner the right, and authorize others, to reproduce, distribute, perform, and display the work and to create derivatives of the work. More information on copyrights can be found on ISURF's website.

Disposition of Intellectual Property and Tangible Materials

Who Owns?

The university has appointed ISURF to hold the right and title to university employee- and student-generated intellectual property resulting from university research activity, and to manage those assets for the benefit of the university. This is accomplished through an assignment to ISURF by the employee or student inventor or. Assignment to ISURF of tangible research materials may also be required, particularly if protected as intellectual property. Policies that govern the ownership of intellectual property are the patent policy, the university-sponsored educational materials policy (copyright), and the copyright ownership and management of software policy. Click here for links to these policies.

ISU recognizes the long-standing practice of copyright ownership by faculty and students for traditional works of scholarship reflecting research and/or creativity. Within the university, the works of scholarship are considered as evidence of professional advancement or accomplishment. Specifically, traditional works of scholarship are journal articles, textbooks, monographs, plays, poems, musical compositions, visual arts and other works of artistic imagination. Works created by students in the course of their education, such as dissertations, papers, and articles, also are considered traditional works of scholarship.

Through the GoldSheet, researchers assign all intellectual property to ISURF. By virtue of reporting new intellectual property to ISURF via the Intellectual Property Disclosure and Record (IPDR), signatories confirm the assignment of any rights they may have in the intellectual property to ISURF. (Note that patent applications, software codes or other data may require additional assignment documents.)

Agreements with Others: Confidentiality, Material Transfer, Testing, Screening, Research, Options, Licenses

During the course of your research, you may want to exchange information, materials or rights to intellectual property with an outside source. Signing agreements to access or distribute information, materials or intellectual property rights will likely place restrictions on their use and may reach through to the results of your research. These agreements protect the provider, set limits on the recipient's use of the materials or information to be transferred or rights granted, and delineate the rights and obligations of the parties to the agreement.

With a few exceptions, there are three offices at ISU that will review, approve and sign these agreements:

1. ISURF: When the subject of the agreement is intellectual property disclosed or should be disclosed to OIPTT Commercialization Group/ISURF
2. OIPTT Industry Contracts Team: When intellectual property has neither been disclosed nor should be disclosed to OIPTT Commercialization Group/ISURF
3. Procurement: When there is no funded research activity, but there is a tangible product (e.g. equipment)

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

To submit material transfer and confidentiality agreements to ISURF and OIPTT, use the portal established for this process. Only ISURF can sign commercialization agreements for research-generated intellectual property. Sample agreements are on both the ISURF/OIPTT and OSPA websites.

Commercialization

Technology commercialization is the process of making a product or service available to consumers. As a public institution, ISU is committed to transferring knowledge gained from research to the public to be used for the benefit of society. Transfer of this knowledge is most often accomplished through scholarly or extension activities such as teaching, seminars, publications or consulting. (See Section 8.3.6 of the Faculty Handbook.)

In situations where a license (commercial) agreement is appropriate for third party distribution, or where intellectual property protection is available and necessary to maximize the public impact of the technology through industry commercialization, OIPTT Commercialization Group and ISURF provide the following services:

- Meet obligations under the funding agreement related to intellectual property
- Perform an intellectual property protection assessment
- Perform a technology commercialization assessment
- Market the technology
- Negotiate the licenses granting industry rights to the intellectual property for further research, product development, marketing, and commercialization
- Manage the patent or other protection activity
- Monitor the licenses for compliance

For more information, contact ISURF here.

When to Meet with OIPTT Commercialization Group

The best time to meet with OIPTT commercialization staff in the development of intellectual property is several months prior to public disclosure. Intellectual property may include journal publications and conference presentations, non-confidential proposals, non-confidential meetings with potential funding sources, etc. Ideally, this meeting would occur before you submit the article to the journal for publication or to the conference for acceptance, as any publication may result in the loss of potential patent rights.

You may report your intellectual property or other innovation to ISURF via the *intellectual property disclosure record form* (IPDR), which is available on the ISURF/OIPTT website. A follow-up meeting will likely occur with one a commercialization manager.

Technology and Commercialization Assessments

After receiving the IPDR, OIPTT Commercialization Group first conducts an extensive review of the technologies that are reported to the office. A review is made of all documents (e.g., research agreements, material transfer agreements [MTAs], confidential disclosure agreements [CDAs], collaborative agreements, etc.) associated with the development of the technology. It is critical that OIPTT Commercialization Group and ISURF understand the full rights and obligations associated with the technology prior to making any patentable or commercial assessments.

Once the rights in the innovations are clarified, commercialization managers will perform a patentability and market assessment and complete a commercialization assessment form. A summary of this assessment is shared with the inventor(s) and may involve a face-to-face meeting to discuss the findings further.

While it's fairly easy to recognize a copyright work because of its tangible form, the evidence is not so clear when a potentially patentable invention has been created. An invention is an idea in the mind of the inventor. This conceived idea must be shown to be useful through its implementation or embodiment in a tangible form, which is called *"reduction to practice."*

Reduction to practice does not require a prototype—although a prototype may be the only way to reduce the conceived idea to practice—nor does it require showing that the invention will be commercially successful. However, reduction to practice is required in order to show that the idea is more than a theory.

Researchers are encouraged to contact OIPTT Commercialization Group at any time with questions about the intellectual property protection and commercialization process. See ISURF Just in Time Series – Pathway from Idea to Commercial Product.

Start-up Companies

New business creation is encouraged to commercialize the new intellectual property. Some technologies are not necessarily suited for a new business and are better integrated into an existing business. Discussion about new business creation will be conducted with the inventor/author when an intellectual property disclosure form is submitted. More information can be found here.

Resources Available

SBIR/STTR Assistance

EDIR provides Small Business Innovation Research (SBIR) and/or Small Business Technology Transfer (STTR) assistance to any ISU-based company, including companies located in the ISU Research Park or eligible companies in the Cultivation Corridor. For more information, contact EDIR.

Regents Innovation Fund

As part of ISU's Proof-of-Concept Initiative (POCI), the Regents Innovation (RIF) program supports the development of ISU innovations with commercial potential. The RIF helps ISU technologies reach the marketplace, provides a foundation for new Iowa companies and facilitates the growth of existing Iowa companies. Projects require an industry partner to provide either in-kind or cash match to the project. Funding of up to $50,000 for projects up to six months long is available. Successful projects may receive an additional phase of funding ($50,000 for six months). An RFP for RIF projects is typically issued in April or May; proposals are also accepted on an ad hoc basis pending the availability of funds. The grants program is supported by Iowa economic development appropriations to the Board of Regents.

CIRAS R&D Industrial Incentive Program

The CIRAS manages the Industrial Incentive Program. ISU program funds are used to match company, industry foundation or trade association funding to perform directed contract research (e.g., company specific) or non-directed research (e.g., consortia). Only Iowa companies qualify for these matching funds and a 1:1 company cash match is required. The

research focus is typically in the areas of product development, process improvement or manufacturing challenges. The ultimate goal is to help grow new or existing Iowa companies. The cost-share program is supported by Iowa economic development appropriations to ISU.

Pappajohn Center for Entrepreneurship
Staff at the Pappajohn Center for Entrepreneurship can provide market assessment and business development assistance to faculty considering commercializing technology into a business venture. The staff will help you identify and utilize resources, research and analyze market opportunities, understand intellectual property issues related to the business, develop a business and funding plan, establish operations, and assemble a management team. They will also help you evaluate the wide range of alternatives, such as form of business, methods of marketing, and sources of funds.

ISU Research Park
The ISU Research Park (ISURP) provides a resource-rich environment for organizations with a science or technology focus. From custom build-out of research facilities, to cutting-edge equipment, to human capital, ISURP connects businesses and researchers to what they need most. ISURP's relationship with ISU and the federal labs in the area, allows you to gain access to a wealth of knowledge in a variety of fields. Whether you're looking for subject matter experts, building on third-party findings or growing your enterprise with business tools, ISURP's resources are designed to enable discovery, protect your intellectual property and help you continue on the path to success.

ISURP provides flexible workspace for science- and technology-based interests with office suites, single-use buildings and build-to-suit lots. The ISURP campus also features technology and wet-lab incubators, testing labs and resource centers dedicated to business success, available on an as-needed basis. ISURP has a multitude of resources to assist entrepreneurs, start-ups and large companies with everything from business plan creation, to securing financial backing, to marketing support, to navigating the state's financial assistance programs.

ISU Startup Factory
EDIR provides an intensive 52-week program for students, faculty and staff as avenue way to create businesses. This program and an affiliated 10-week summer program for students are housed at ISURP. They provide formal training, resources and access to a network of business mentors and other support help. For additional details, see the ISU Startup Factory.

Leaving the University

Most investigators complete multiple research projects throughout their careers. Usually, closing a project is as simple as writing the final technical report required by the funding agency, assuring that all project costs have been charged to the project account, and assuring that the research results are to be published in a suitable venue.

However, the process can be more involved when an investigator leaves the university due to retirement or relocation. The following checklist is designed to help ensure the transition is smooth:

- Talk with your department chair or unit supervisor several months in advance of your anticipated departure. He or she can help with the transition.
- Notify OSPA or OIPTT (for industry/commodity awards) if you are considering the transfer of awards to another institution. This normally requires discussions with and approval by your department chair or unit supervisor before the sponsor is contacted. The transfer of an award can be a lengthy process, so please notify OSPA or OIPTT **several months in advance of your anticipated departure**. OSPA/OIPTT will review sponsor terms and conditions for award transfer options.
- Transfers of an award are typically only allowed by various federal sponsors. All other sponsor types will require a discussion with OSPA/OIPTT and the sponsor regarding the appropriate procedures for relinquishment of the award. If the award is relinquished, the sponsor will determine whether to re-issue the award to the new institution. If the project is not yet completed and you wish to continue as an ISU PI or Co-PI, apply for affiliate status in your home department.
- If someone else will be taking over as PI at ISU, contact OSPA or OIPTT (for industry/ commodity awards) to request a PI change. PI change request need to be submitted to the sponsor for approval.
- If your work involves compliance committee approval(s), please contact ORE for guidance. If the project(s) will continue at ISU, transfer oversight to a new ISU PI. Similarly, if you supervise students involved in ongoing human subjects research, IRB must approve a new faculty supervisor. Completed projects should be formally closed.
- Remember that all equipment purchased with ISU funding belongs to ISU. In certain circumstances, investigators may be permitted to have their new institution purchase ISU-owned equipment. Equipment purchased on active awards may be permitted to transfer without cost. For further information, contact your department chair.
- Supplies and equipment purchased using PI incentive funds are considered ISU property. You will need to discuss the purchase of any items bought with ISU funds with your department chair.
- All data and reagents developed in your research belong to the university. While, in most cases, it is permissible to take copies of the items with you, be sure to confirm this with your department chair or unit leader. In some instances, taking the only copies of valuable materials can seriously harm the research efforts of your ISU colleagues.
- Material in your lab that came in under an MTA must be handled according to MTA terms and conditions. Please contact OIPTT for assistance with these materials at industry-contracts@iastate.edu.
- If any innovative results have been disclosed to ISURF which you will need to use at your new location, or if you are uncertain if a disclosure should be submitted to ISURF prior to leaving ISU, please contact ISURF at 294-4740. ISURF can assist in arranging for rights for you to continue to use Background IP at another institution.

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

- If you created items of value that could be lost when you leave, such as reagents, culture collections, computer programs, etc., arrange for their deposition in an appropriate repository.
- If your sponsored projects are complete:
    - Contact SPA to close out your sponsored program accounts
    - Make sure all final technical report(s) have been submitted to the sponsor(s) and the ISU lead departmental unit has documentation of all final report submissions
- If you have research materials, equipment, chemicals, culture collections, etc., that need to be disposed or transferred, follow the steps on the Laboratory Check-out Form and contact EH&S at 294-5359.

Learning More

Tips on Writing a Grant Proposal

Start Early

- Successful grant writers plan months—even years—ahead of time
- Plan to spend two to three months writing the proposal sections
- Each fall, the OVPR posts a schedule of research training and development events for the upcoming academic year on its website. These include workshops on finding funding, grant writing, budget development and a variety of other events to support proposal development and success. Try to take advantage of these.
- Consider that the two to three weeks immediately prior to a funding deadline are often consumed with internal ISU office verification processes.

Request for Proposal Guidelines

Read the complete RFP carefully and follow it exactly. Proposals are frequently eliminated *before* a first-round review simply on these matters. In some cases, electronic submission systems do not even permit the acceptance and transmission of proposals if they do not meet the formatting criteria. Look for supplied templates before you start writing.

Contacting the Agency

Questions of eligibility, project scope and project suitability often arise when reading RFPs, and these questions frequently warrant a phone call or email to an agency. If the agency handles sponsored funding processed through OSPA, then it is your responsibility to contact the program officer directly. If, however, the funding agency is a private donor or foundation, contact ISUF; contact OIPTT if it's a company. If you are unclear which path your chosen funding opportunity would take, please contact your dean's office or OSPA for clarification.

Letters of Inquiry

From the university's point of view, letters of inquiry are treated similarly to grant proposal applications if they mention a budget; that is, they *must be* submitted either through OSPAusing the internal GoldSheet system, or through the ISU Foundation. If however, the letter of inquiry only mentions a single ball park *estimate*, then a GoldSheet is not needed at this time. The

Unit: Office of the Vice President for Research
Effective: April 2011
Reviewed/Revised: Feb 2022
Contact: vpr@iastate.edu

important thing to keep in mind is that the letter of inquiry must not commit you, as the PI, your project, or the institution *to anything*—this is simply an inquiry stage.

Write for Your Audience

Unless it is clear that your proposal will be reviewed by peers in your own discipline, write for a more general audience. Many larger funding opportunities are open to a number of disciplines, and review committees are likely to include reviewers or program officers who are not familiar with your discipline, the jargon used within it, or special terminology and acronyms. As you write, ask yourself, "Who is my audience?" and, "Will this be clear to a non-specialist reader?"

Proposal Revision

Understand that the first draft will need revision. Allow enough time to step away from the proposal-writing process and return later with renewed energy and a fresh outlook. Be prepared to ask colleagues to read and suggest revisions on the draft—forewarn them so that they are not caught by surprise.

Letters of Support or Collaboration

If letters of support or collaboration are required, review the application materials to determine who may write on your behalf and confirm their availability early. Letters of support or collaboration are frequently due at the same time as your application. Be sure to notify the individuals who will write on your behalf *well ahead of time* and provide them with the necessary agency contact information, delivery instructions (if they are to be submitted separately from the proposal) and deadlines.

The Budget

Create a draft budget early on and plan to rework it several times before completion. Budgets take time to create; they cannot be a last-minute addition to the proposal. Budgets often influence the direction of the narrative/project description text. Consider that any lapse in detail, unrealistic cost estimates and budget padding may result in your proposal not being funded. Your budget narrative, if required, should succinctly justify the need for funds in each category. For industry funded projects, consider providing the corporate sponsor with a "loaded" budget, which is an abbreviated form of a budget that includes the full F&A charges within related line items instead of a separate budget line item for F&A at the bottom of the budget.

Your CV

Remember that your credentials are an integral part of the application. Update your full *curriculum vitae (CV)*. Some RFPs require a condensed version of the CV. Agencies may have different criteria for CV content. Prepare this early according to the guidelines.

Non-technical Parts

You will need to submit several supporting documents along with the proposal. These may include facilities and other resources, postdoc mentoring plan, data management plan and others depending on the agency requirement. Prepare these in a timely manner per RFP specifications.

Deadlines

Check deadlines carefully. Know that they are not negotiable—you must meet all agency and internal ISU office deadlines.

Resources Provided by Funding Agencies

- List of internal funding opportunities
- Comprehensive list of external funding sources

Non-Discrimination Requirements

U.S. Department of Agriculture Foreign Agricultural Service - Non-Discrimination Requirements

USDA Non-discrimination Statement

In accordance with Federal law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, Iowa State University is prohibited from discriminating on the basis of race, color, national origin, sex, age, disability, and reprisal or retaliation for prior civil rights activity. (Not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Individuals with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible State or local Agency that administers the program or USDA's TARGET Center at (202)720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information is available in languages other than English.

How to file a USDA Program Discrimination Complaint

To file a complaint alleging discrimination, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer or at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

This Institution is an equal opportunity provider.

Purpose and Content of the "And Justice For All' Poster:

Recipients of federal financial assistance and/or institutions participating in or administering USDA programs must prominently display the poster in their facilities for the public in a conspicuous location where it may be read by customers and employees.

Purpose: The USDA "And Justice for All" poster is the primary method utilized to inform customers of their rights. It informs the public of USDA's nondiscrimination policy and the procedures to take if filing a discrimination complaint is warranted.

Content: The information on the poster includes the USDA's nondiscrimination statement and information on

how to file a program discrimination complaint.

Location of "And Justice for All" Poster:
UHR Service Center
3810 Beardshear Hall
515 Morrill Road
Ames, IA 50011