Research Handbook:
A Guide to the Grants Process at Purdue University
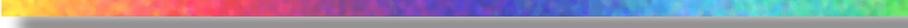
September 2006

Hosted by
Office of the Vice President for Research

http://www.purdue.edu/research/vpr

PURDUE
U N I V E R S I T Y

Preface

The creative discovery, learning, and engagement projects of Purdue faculty are central components of the mission and strategic plan of the University. Many of these faculty-initiated projects are funded by external sponsors who have established procedures and policies for administering the programs they support. The mission of the Research Development and Research Administration units of the Office of the Vice President for Research (OVPR), as well as of Sponsored Program Services, is to assist faculty in initiating and managing all types of sponsored programs.

The Research Development unit assists faculty in identifying potential extramural sponsors and in preparing proposals. Sponsored Program Services serves faculty by reviewing proposals for completeness, submitting proposals, negotiating contracts, administering grants and contracts after receipt of an award, and closing out awards when they have ended. The Office of Research Administration assists faculty with developing required cost sharing for sponsored projects and with assuring compliance with federal and state regulations for research involving human or vertebrate animal subjects, use of recombinant DNA and biohazardous materials, potential financial conflicts of interest, and research integrity. One of the primary goals of the OVPR staff is to minimize the effort faculty invest in seeking and administering external grants and contracts, and thereby maximizing the effort they can devote to their projects. As a step toward this goal, our office has developed this handbook for use as a reference during your grantsmanship activities at Purdue University.

It is our hope that the information on the following pages will be of value to you during your professional career at Purdue. Please feel free to contact our staff for assistance with your proposals and awards whenever the need arises.

Charles O. Rutledge
Vice President for Research

Contents (chapters and titles are linked and bookmarked)

Purdue is an equal opportunity/equal access university

Chapter One

Sponsored Programs Support for Purdue Faculty and Staff

Assistance with the efforts of Purdue's faculty and staff to secure external support for research, instructional and service projects is available from several sources within Purdue University and the Purdue Research Foundation (PRF). Administrative responsibility for sponsored program support provided through Purdue University is shared by Vice President for Research Charles O. Rutledge, Vice President for Business Services and Assistant Treasurer James S. Almond, and Senior Vice President for Advancement Murray Blackwelder. PRF support for sponsored programs is administered by Vice President for Research Rutledge and Senior Vice President and Treasurer Joseph P. Hornett.

Research Development and Research Support

The Research Development and Research Support clusters assist faculty with sponsored program development and industry research and outreach; and the design and editing of sponsored program communications. The Office of the Vice President for Research (OVPR) provides services to assist faculty in identifying external sources of funding and improving grantsmanship skills. It focuses on aggressive development of sponsored program opportunities through strategic analysis of Purdue's strengths in interdisciplinary collaboration and strategic partnering. The director of research development services works closely with deans, faculty, and external sponsors to identify funding opportunities, match Purdue expertise with sponsors' needs, and catalyze new collaborations to address interdisciplinary problems. OVPR also maintains a library of sponsored program information and provides training in the use of funding and faculty expertise databases. The Office of Industry Research and Technology Programs (OIRTP) assists faculty in the identification of potential corporate sponsors of research, and in the establishment of strategic partnerships and master agreements with corporate partners. OIRTP also helps companies identify sources of expertise and services within the Purdue community. The organization of the Research Development and Research Support staff is shown in Figure 1 .

Research Administration and Compliance

The Office of Research Administration (ORA) assists faculty in complying with federal and state statutes and regulations that impact research and scholarship; provide assistance to Purdue's postdoctoral community; administer the McCoy award, Purdue's principal recognition for achievement in scientific research; provide administrative support for the research faculty classification; and promotes research integrity and the responsible conduct of research through workshops and collaborative activities with the Graduate School. Specifically, ORA provides assistance to researchers in compliance with regulations protecting human and vertebrate animal subjects used in research; controlling use of recombinant DNA and other potentially biohazardous materials; requiring disclosure and management of financial conflicts of interest; controlling export of certain technologies to foreign persons; affecting the research use of certain drugs and other controlled substances; and mandating research security. The organization of the ORA is shown in Figure 1 (page 5).

Purdue Research Foundation

The Purdue Research Foundation (PRF) was established in 1930 to perform in areas where it is inherently more difficult for Purdue University to function because of federal and state legislation that govern a land-grant university. PRF is a nonprofit corporation that administers trusts, funds, and endowments; facilitates the protection of university intellectual property via patents and copyrights; licenses Purdue technology to generate products and services for the general public; accepts and administers gifts; acquires and develops property; and performs other services helpful to Purdue University. PRF was one of the first major university-affiliated foundations to be incorporated for the purpose of assisting a university in carrying out its mission.

Office of the Vice President for Research Organizational Chart

Provost
Sally Mason

Dir. Sponsored Program Services
Larry E. Pherson

Vice President for Research
Charles O. Rutledge

OVPR/DP Business and Sponsored Programs Office
Liz Rulli/Christina Haddock

Assoc. VPR & Dir. University Research Administration
Peter E. Dunn

Sr. Assoc. VPR & Exec. Dir. of Discovery Park
Alan H. Rebar

Assoc. VPR Research Development & Research Support Infrastructure
Robert J. Bernhard

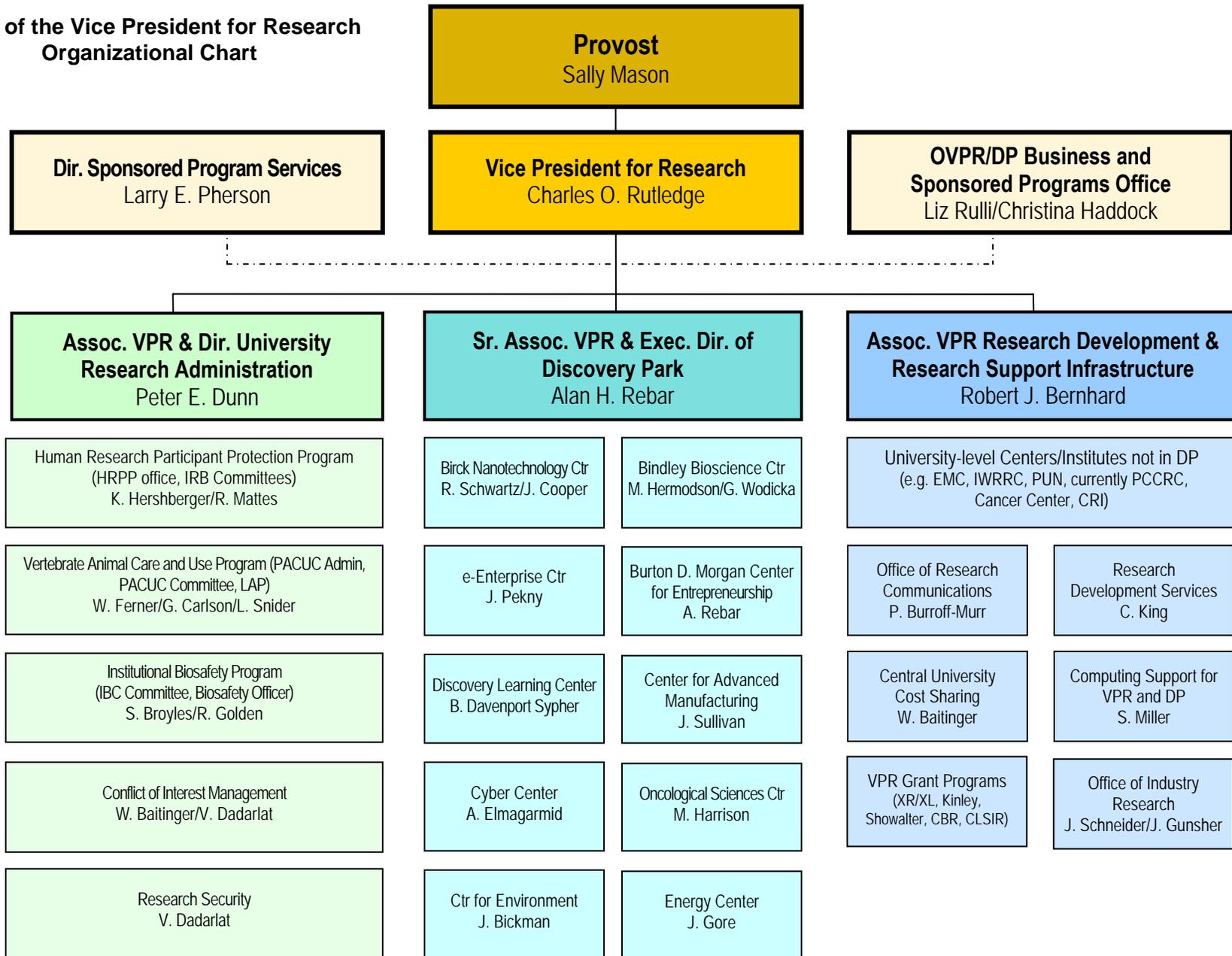| Peter E. Dunn	Alan H. Rebar		Robert J. Bernhard	
Human Research Participant Protection Program (HRPP office, IRB Committees) K. Hershberger/R. Mattes	Birck Nanotechnology Ctr R. Schwartz/J. Cooper	Bindley Bioscience Ctr M. Hermodson/G. Wodicka	University-level Centers/Institutes not in DP (e.g. EMC, IWRRC, PUN, currently PCCRC, Cancer Center, CRI)	
Vertebrate Animal Care and Use Program (PACUC Admin, PACUC Committee, LAP) W. Ferner/G. Carlson/L. Snider	e-Enterprise Ctr J. Pekny	Burton D. Morgan Center for Entrepreneurship A. Rebar	Office of Research Communications P. Burroff-Murr	Research Development Services C. King
Institutional Biosafety Program (IBC Committee, Biosafety Officer) S. Broyles/R. Golden	Discovery Learning Center B. Davenport Sypher	Center for Advanced Manufacturing J. Sullivan	Central University Cost Sharing W. Baitinger	Computing Support for VPR and DP S. Miller
Conflict of Interest Management W. Baitinger/V. Dadarlat	Cyber Center A. Elmagarmid	Oncological Sciences Ctr M. Harrison	VPR Grant Programs (XR/XL, Kinley, Showalter, CBR, CLSIR)	Office of Industry Research J. Schneider/J. Gunsher
Research Security V. Dadarlat	Ctr for Environment J. Bickman	Energy Center J. Gore		

Figure 1

Sponsored Program Services

Sponsored Program Services (SPS) provides Purdue's faculty and sponsors of Purdue's research, instructional and service projects with a set of seamless processes for the submission of proposals, negotiation of contracts, establishment of awards, management of sponsored program accounts, and post-award administration for all sponsored projects; protection and management of intellectual property developed by Purdue faculty, staff, and students; and analysis and reporting of sponsored program data.

University Development Office

The University Development Office is responsible for increasing private support from non-governmental sources for Purdue University and for maintaining positive relationships throughout the institution's broad range of constituencies.

Under the direction of the senior vice president for advancement, the University Development Office has the following responsibilities:

- develop and communicate the fundraising priorities of Purdue University.

- provide fundraising planning, consultation, execution and information services to the University community.

- identify and cultivate donors and volunteers.

- manage the development and alumni information database and related gift processing systems.

- ensure gifts are used appropriately and provide stewardship reports to donors.

The University Development Office includes the following areas:

- *Annual Support:* responsible for raising contributions through direct mail and phone solicitation to build the base of donors, managing the senior class giving program, and assisting other University personnel and volunteers with scholarship programs, memorials, corporate alumni solicitations, and other annual fundraising initiatives.

- *The Campaign for Purdue:* manages the overall campaign.

- *Reunion Class Gifts:* responsible for working with volunteer alumni class representatives to guide the solicitation of private gifts for class projects.

- *Corporate Relations:* responsible for identifying, cultivating, and developing partnerships with corporations and corporate foundations.

- *Gift Acknowledgment/Stewardship:* responsible for acknowledging and transmitting receipts to donors on behalf of the University and providing appropriate stewardship and customer service to promote positive relations with internal and external customers.

- *Development Services:* responsible for processing gifts and related constituency information to support Purdue's development efforts and information needs and responsible for managing data and providing information services in support of Purdue's development and alumni association programs.

- *Development Research:* responsible for supporting major gift fundraising activities at Purdue through identification of prospects, providing supporting information and research to fundraising staff, managing the prospect contact and activity tracking system, and reporting results.

- *Planned Gifts:* responsible for identifying alumni and friends who are interested in establishing charitable trusts, will provisions, life insurance policies, life estates, endowments, and other major gifts involving tax related issues.

- *President's Council:* responsible for recognizing the generosity of major donors to Purdue, developing active participation of members in the University and promoting an increasing pattern of generous giving to Purdue.

Each school and regional campus, as well as many units and departments, maintain a development staff to aid in the individual area's fundraising efforts. These staff members report to the University Development Office, and work with deans, department heads, and chancellors of the respective schools, units, and regional campuses.

Resource List

For complete information concerning these offices, please refer to the following Web sites:

Office of the Vice President for Research
http://www.purdue.edu/research/vpr

Sponsored Program Services
http://www.purdue.edu/SPS

University Development Office
http://www.purdue.edu/udo ❖

Chapter Two

Identifying Funding Opportunities

Guide to External Support

Office of the Vice President for Research

An important function of the Office of the Vice President for Research (OVPR) is to provide services that will help faculty members succeed in obtaining funds from outside sources for their research, teaching, and service activities.

One of the primary ways in which the office provides faculty members with access to guidance in preparing and submitting proposals for sponsored programs (and assistance in the administration of awarded grants and contracts) is through a staff who have valuable expertise in a variety of grantsmanship areas (see Figure 2).

Described below are the activities that help faculty members to a) identify potential external funding sources and special resources such as equipment grants or opportunities for collaboration with other investigators, b) prepare proposals for submission, and c) improve grantsmanship skills.

Organizing conferences, seminars, and workshops

Throughout the year, the OVPR staff develop a number of conferences, seminars, and workshops on various topics related to obtaining grants and contracts. These are presented by the development staff as well as by consultants and outside experts invited to the University. Some of these events are oriented toward certain groups such as specific schools and departments, new faculty, or experienced grantees. Others are designed to illustrate particular sources of funding (e.g., federal government agencies, state government agencies, corporate foundations, philanthropic foundations, etc.).

Most of these special opportunities are initiated by one or more of the OVPR staff on the basis of their contacts with various agencies and their perception of faculty needs. Such meetings also are organized in response to requests from faculty members, department heads, and deans. Therefore, faculty and administrators are encouraged to participate in those opportunities made available during the year, and also to suggest to the OVPR staff who work with their department(s) or

special areas (i.e., King, Schneider, or Gunsher) topics and/or speakers for future conferences, seminars, and workshops.

Reviewing and disseminating funding information

OVPR staff routinely review publications that announce funding opportunities. These include federal government publications (e.g., the *Commerce Business Daily*, the *Federal Register*, and the *NSF E-Bulletin* and *the NIH Guide*) and commercial publications (e.g., *Federal Grants & Contracts Weekly*, *Federal Research Report*, and *Health Grants and Contracts Weekly*), as well as Requests for Applications (RFAs),[1] Requests for Proposals (RFPs),[2] and Broad Agency Announcements (BAAs).

Announcements that appear relevant to a group of individuals in a number of departments and/or schools are disseminated via specialized e-mail lists. Announcements that are likely to interest many faculty members in a department or school typically are sent to department heads and/or deans for dissemination as these administrators see fit.

Participating in individual or group meetings with faculty and staff

Faculty members may request a meeting with any of the OVPR staff to obtain information about potential funding sources, clarification of guidelines, advice on proposal preparation, etc. New faculty in particular may want to arrange a meeting with OVPR staff to get some help in understanding the language of grants and contracts. For example, one reason a PI may wish to meet is to get assistance in determining which agencies and which types of opportunities are most likely to be worthwhile funding sources for particular scholarly endeavors.

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[1]An *RFA* (primarily an NIH grant mechanism) invites grant applications in a well defined scientific area to accomplish a scientific program purpose for the Bureau, Institute, or Division issuing the RFA. A receipt date (usually one time) is specified.

[2]An *RFP* (a Government-wide contract mechanism) is a one-time solicitation document which asks offerers to respond to a Government-defined statement of work.

Office of the Vice President for Research

Research Development

H. C. King, *Director of Research Development Services,* hcking@purdue.edu

Areas of Expertise: Sponsor information, Limited Competitions,COS, Education

Vice, Life Sciences Project Coordinator,

Area of Expertise: Life Sciences

Office of Industry Research and Technology Programs

J. A. Schneider, *Assistant Vice President for Industry Research,* jas@purdue.edu

J. A. Gunsher, *Associate Director,* jgunsher@purdue.edu

Area of Expertise: Industrial relations

Figure 2.

Making trips to and maintaining contacts with federal and non-federal sponsors

OVPR staff visit federal and non-federal sponsors in Washington, D.C., and other locations to identify upcoming funding opportunities and to obtain information about any modifications in application procedures or policies. They also maintain contact with project officers and other individuals in various federal agencies, corporations, and foundations on a routine basis. Most trips are initiated in an attempt to maintain a continuing contact or to investigate potential funding opportunities. Staff also communicate information on specific projects or make inquiries for particular faculty members on trips to funding sources, when such requests are made in advance.

Facilitating interdisciplinary communication and collaboration

OVPR staff work to facilitate communication and collaboration between different departments and schools. They work to foster interdisciplinary projects through individual meetings with faculty. By knowing the areas of interest of various individuals and their developing research or other projects, OVPR staff are able to bring together researchers with common or complementary goals.

Some funding opportunities are more accessible to groups of investigators working together than one investigator working alone. OVPR staff facilitate collaborative projects by arranging meetings for special interest groups. For example, the OVPR organized the original meeting of the AIDS Special Interest Group in Behavioral and Social Sciences. Once that group was functioning and had its own leadership, we bowed out of active participation, but continued to play a supportive role. Faculty may contact the director(s) most aligned with their interests to request the arrangement of a meeting for a special interest group.

The director of research development services, Christine King, identifies funding opportunities for Purdue's faculty and coordinates the development of multidisciplinary proposals. Primary responsibilities include communicating with funding sponsors, developing innovative projects, facilitating proposal meetings, developing proposals, and consulting on other issues in the context of science projects.

Research Development Services

The OVPR provides a variety of services that faculty and staff can use to identify potential external funding opportunities. The director of research development services provides assistance to faculty and staff in using these services. Descriptions of each of these services follow.

Office of the Vice President for Research Web Site

OVPR services may be found through the Vice President for Research Web site which provides links to various related services on campus, as well as to funding sources and proposal writing information. The OVPR Web site address is: http://www.purdue.edu/research/vpr.

Community of Science (COS) Expertise Profiles, Funding Alert Service, and Funding Opportunities

The Community of Science is the largest single repository of research funding information on the Web. Three of its databases of particular value to researchers are *COS Expertise*, *COS Funding Alert*, and *COS Funding Opportunities*. All can be accessed from the COS home page at http://www.cos.com or through the OVPR Web site.

COS Expertise provides individual researchers the opportunity to create research expertise profiles which then are accessible to potential research collaborators within Purdue University as well as among the greater academic community. The profiles also are available to potential industry sponsors as well as to OVPR staff seeking researchers for specific projects.

COS Funding Alert Service provides researchers with weekly e-mail updates of funding opportunities in areas specified by the researchers.

COS Funding Opportunities is a searchable database of funding opportunities in all disciplines.

For questions about or assistance with setting up COS expertise profiles and/or funding alerts, faculty should contact Christine King at 49-46706 or hcking@purdue.edu.

The Office of the Vice President for Research highly recommends that faculty who are looking for funding for a particular project begin by entering (or updating) their areas of research and study in the COS Funding Alert Service as well as by using the searchable COS on-line databases.

OVPR Library

OVPR has a small library of references that faculty and staff may use for assistance in locating potential federal and non-federal sources of funding in numerous fields. The library was created for faculty and staff members to use when: 1) they have an idea for a project, but have not identified a potential funding sponsor; and 2) they have identified a potential sponsor, but would like additional information before submitting a proposal.

Included in the library are published references useful for locating funding for University projects. These comprise: pertinent information (e.g., addresses, phone numbers, areas of interest, assets, and past grants) on particular types of funding organizations, and data on recently awarded grants in particular areas. A large variety of copies of presentations from proposal-writing workshops also is available on the OVPR Web site.

A collection of successfully awarded proposals by various agencies is available to aid faculty in preparing their grant proposals. The list of currently available proposals also is available on the OVPR Web site. The director of research development services also will solicit awarded proposals, as needed, if they are not currently available in the library.

For more information (or suggestions) about the OVPR library, contact our office at 49-49322.

Research Review Newsletter

The *Research Review* newsletter is another research information service offered by the Office of the Vice President for Research. It is distributed to all faculty, postdoctoral associates, and research scientists, as well as to administrators with responsibilities related to sponsored programs. The first issue of the *Research Review* was released in March 1988. It is published monthly except for combined July/August and December/January issues. Newsletters from 1995 through the present can be found at the OVPR Web site under Publications.

Each edition contains a monthly listing of the projects that have been funded at Purdue University (between 100 and 150 awards monthly). The *Research Review* publishes the sponsored program awards funded to give recognition to faculty achievements and to inform readers of the different kinds of research, teaching, and service projects conducted at Purdue.

Important announcements such as those regarding changes in federal regulations, developments in federal budget negotiations, upcoming conferences and workshops, modifications of internal procedures, and articles on industrial relations and multidisciplinary programs also are included in the newsletter. Contact the Office of Research Communications at 49-63381 for more information.

Office of Industry Research and Technology Programs

A liaison with potential corporate sponsors

Because of its international reputation for excellence, Purdue is among the top American universities in industrial sponsorship of faculty research. Corporations throughout the region, the nation, and the world sponsor Purdue faculty research to meet their needs for advanced information, new technologies, help with company problems, and recruitment of highly trained employees.

The Office of Industry Research and Technology Programs (OIRTP) within the OVPR serves as a point of contact for

faculty and corporations interested in research partner-ships. John A. Schneider is the assistant vice president for industry research; Jeff Gunsher is the associate director. The staff of OIRTP promote Purdue research expertise, help faculty become familiar with companies, make ap-propriate contacts, organize symposia and conferences to attract industry, and host corporate visitors.

Strategies for seeking corporate funding

The process of seeking industrial research support is dif-ferent from seeking government support. The key is estab-lishing one-to-one relationships between faculty members and industry representatives. Consultation is provided to faculty on specific and proven strategies for successful corporate networking.

Faculty members seeking industrial sponsorship for their research may contact OIRTP for assistance and to register their research interests. Investigators are encouraged to complete and return the questionnaire available on-line at http://www.purdue.edu/research/vpr/partners/faculty.html. We would like to help you establish industry contacts/partnerships so we can help target corporate opportunities.

Once companies to be contacted are identified, the OIRTP can provide information on the firms, including names of contact people, addresses, corporate activities, labora-tories, affiliations, etc. Also, a company search can be done by company name, product, geographical region, or Standard Industrial Classification code.

Changing Environment

Our office monitors government regulations and activities requiring university/industry collaboration. We commu-nicate these new efforts and provide information on new programs. An effort is underway to establish strategic partnerships with key industrial sponsors as they plan for future R&D needs. This office also assists in current University programs to facilitate economic development.

Purdue/Industry Partnerships (PIP) Newsletter

OIRTP sends a newsletter to corporate representatives to inform them of the many opportunities at Purdue that could benefit their companies such as research projects, industrial affiliate programs, research centers, special seminars for industry representatives, and other activities. Investigators are invited to submit research ads describing their research for inclusion in the newsletter.

Faculty-Owned Businesses

Faculty members seeking assistance in learning about and preparing Small Business Innovative Research (SBIR) and Small Business Technology Transfer Research (STTR) funding programs should contact OIRTP.

The University has developed a document that clarifies how the University views faculty-owned businesses and how involvement between the businesses and the University should be handled. The document is available on-line at http://www.purdue.edu/research/vpr/partners/faculty.html. This also pertains to conflict of interest.

For assistance in seeking research support from companies and/or corporate foundations, call Lisa Muncy at 49-40743. If you have a specific problem or question, call John Schneider at 49-45532 or Jeff Gunsher at 49-63723. ❖

Chapter Three

Internal Sources of Support

There are several alternatives available to assist faculty and graduate students with internal research support: their academic department, their academic college/school (dean's office), the University Graduate School, and the Office of the Vice President for Research.

Department and College/School

The department head is the best place to initiate monetary requests such as those for course upgrades, small laboratory or computer equipment purchases for teaching, or research training support for undergraduates or graduate assistants. On occasion, relatively low-cost and/or short-term requests may be satisfied with funds already in the department's budget or through an allocation from the college/school dean. The offices of the deans of the various Purdue colleges/schools solicit and review applications for some internal (and external) grant and fellowship programs that are specific to particular departments or departmental areas. Faculty members may contact their department head's office to learn about current programs administered by the dean's office of their respective college/school.

The University Graduate School

http://www.purdue.edu/GradSchool/

The University Graduate School, directed by Cindy Nakatsu, interim dean of the Graduate School, offers internal fellowships for Ph.D. and minority Ph.D. and master's degree candidates, and provides information on many external agency programs of support for graduate students. Cynthia Lynch, director of fellowships and professional development for the Graduate School, is the primary contact with regard to support opportunities that exist for current (and future) graduate students. Persons who wish to obtain more information may contact Cynthia at 49-42598 between 8 a.m. and 5 p.m. in Young Hall.

OVPR Research Development and Research Services

The OVPR Research Development and Research Services administers various internal grant competitions which provide support for faculty research activities.

Faculty support grants administered by the Office of Research Administration include the following:

- PRF International Travel Grant — awarded to faculty to provide a portion of their transportation costs when they play an active role at a recognized international meeting;

- PRF Research Grant — awarded to faculty for the support of graduate students who are engaged in thesis research for the Ph.D. degree;

- PRF Summer Faculty Grant — awarded to academic-year faculty members in the early years of their careers so that they may continue full-time scholarship and/or research during the summer months.

Eligible faculty receive announcements for these grant competitions early in the Fall semester of each year through their academic deans and/or departments. The announcements contain all the information necessary to apply for these grants including the terms of the grant, eligibility requirements, application instructions, appropriate forms, and deadlines.

The OVPR Research Development and Research Services also coordinates an additional set of specialized grant competitions, which support research in more defined subject areas:

- Kinley Trust Awards—for research relating to human welfare;

- Showalter Trust Awards—for scientific research in specified areas;

For more information on these grant competitions visit: http://www.purdue.edu/research/vpr/funding/internal.html.

Rhonda Hostetter, administrative assistant for the Office of Research Development, is the primary contact for faculty, department heads, college/school deans, and departmental business offices with regard to the regulations and administration of these internal grant competitions. For more information about these grants, please contact Rhonda at 49-40901, rhostetter@purdue.edu, between 8 a.m. and 5 p.m. The Office of Research Development is located in Hovde Hall, Room 330.

OVPR Research Development and Research Services staff administer funds that are used to help faculty satisfy requirements for equipment matching funds or other forms of cost sharing associated with applications for project support from certain federal sponsors. Requests for commitment of equipment matching funds or other forms of cost sharing for proposals to a federal sponsor should be initiated with the department head and normally require contributions from the department and college in addition to commitments from the OVPR. ❖

Chapter Four

Discovery Park

Discovery Park is the interdisciplinary research hub of Purdue University. Influenced by the convergence of technological advances in various academic disciplines, Discovery Park capitalizes on this trend by attracting faculty and financial support to conduct interdisciplinary research that is ambitious in scale and/or scientific impact. The Park provides an organizational structure and stimulating, dynamic environment that enhances the identification, evaluation and implementation of emergent interdisciplinary research areas. Additionally, the Park plays a key role in exploiting the convergence of Discovery with the other two key portions of the University's mission: Learning and Engagement.

The mission of Discovery Park is to provide Purdue University with facilities, leadership and systems that transcend traditional academic boundaries, fostering an innovative interdisciplinary environment for learning, discovery and engagement that leads to intellectual excitement, scientific achievement, and economic growth and opportunities. The vision of Discovery Park is for it to serve as a model for facilitating interdisciplinary endeavors and to be recognized for its people and their vibrant, progressive approach to discovery and learning.

Since its inception, Discovery Park has leveraged resources to secure $203 million (as of July 31, 2006) in extramural funding for programs and projects. About one thousand faculty members are involved in Discovery Park Centers and research. In addition to the extramural funding, approximately $100 million in donations have been received for construction of new buildings. Three buildings (Burton D. Morgan Center for Entrepreneurship, Birck Nanotechnology Center and the Bindley Bioscience Center) are complete, construction of the e-Enterprise Center building has begun, and plans are being made for the Discovery Learning Center building. Space for research projects in Discovery Park is evaluated and allocated based upon criteria that ensure the facilities are shared, flexible, and are fully utilized for large interdisciplinary research programs.

Discovery Park Centers

Discovery Park (DP) enhances interdisciplinary research in primary areas of study represented by the following Centers:

Bindley Bioscience Center

Life sciences and engineering researchers collaborate to explore new technologies and scientific knowledge that can impact the broad boundaries of plant, animal, and human diseases. Technology development and basic research for large scale analysis of proteins, metabolites, and cellular structure/function combine with advanced data management and mining systems to foster new understanding of biological systems for improving the quality of life in Indiana, the nation, and the world.

Birck Nanotechnology Center

Encompassing science, engineering, and technology, research at the center is directed towards understanding, designing, and creating improved nanoscale materials, structures, devices and systems that exploit valuable new nanoscale properties. This center houses NSF Netework for Computational Nanotechnology and NASA Institute for Nanoelectronics and Computing.

Burton D. Morgan Center for Entrepreneurship

This center is a platform to launch new technology-based enterprises from Purdue research endeavors. It is helping faculty, students, and Indiana businesses better understand technology transfer and commercialization. This center works very closely with the PRF Office of Technology Commercialization and it also houses Center for Regional Development and Small Business Development Center. A newly established Undergradauate Certificate in Entrepreneurship and Innovation is available to students in all majors through a sequence of five three-credit courses.

Center for Advanced Manufacturing

Industrial development is vital to the economic health of the state of Indiana. The center bridges basic academic research with specific industrial needs to enhance both the understanding and application of manufacturing issues in Indiana. This center also houses Purdue's Product Lifecycle Management program.

Center for the Environment

At a time when the Earth's resources are being consumed and modified at unprecedented rates, the Center for the Environment will work to respond to the need of protecting our environment while sustaining a global economy through scientific discovery, educational enlightenment, and innovative entrepreneurship.

Cyber Center

Cyberinfrastructure (CI) is infrastructure based upon distributed computer, information, and communication technology. Through developing and applying CI, this center will give Purdue a competitive advantage in creating, disseminating, and preserving scientific and engineering knowledge.

Discovery Learning Center

Learning Center projects focus on the design and assessment of educational initiatives, innovative learning spaces, and advanced technologies to enhance our understanding of the learning process and improve educational practices. This center conducts Interns for Indiana and Discovery Park Undergraudate Research Internship programs. Other large programs are the Center for Authentic Science Practice in Education, the Nanoscale Center for Learning, and the National Center for Learning and Teaching of Nanoscale Science and Engineering.

e-Enterprise Center

The e-Enterprise mission is to seed, nurture, and execute large multi-disciplinary research projects that involve applying computing and information technology to address real-world problems and challenges. This center houses the Regenstrief Center for Healthcare Engineering and the Purdue Homeland Security Institute.

Energy Center

The Energy Center is a multidisciplinary academic community of over 75 researchers, scientists, engineers and economists formed to interact with and significantly contribute to the alternative energy solutions that states, nations, and the world are currently seeking.

Oncological Sciences Center

By working toward the National Cancer Institute's goal of eliminating cancer as a cause of suffering and death by 2015, the Oncological Sciences Center will focus on research that addresses, prevention early detection, and treatment strategies for all segments of the population.

Proposal Processes for Discovery Park

The decision to process a proposal through Discovery Park is made by the principal investigator (PI). Appropriate proposals for DP are (1) interdisciplinary – multi-principal investigator, multi-departmental; (2) additive – enhances, not replaces, the core learning, discovery or engagement function of the University; (3) innovative, high impact, cutting-edge research concepts; (4) large dollar requests (typically > $1M/year). Other criteria are that the project fits within the current focus research areas in Discovery Park or has the potential to become a new signature area, it relies on expertise, equipment, laboratories or facilities in Discovery Park, and/or it transcends traditional academic boundaries and provides strong leadership in the field or transforming projects that can increase the economic development opportunities within Indiana and the U.S.

Once the PI has decided to run a proposal through DP, the PI should contact the appropriate center director. Upon center director approval, he/she will contact the appropriate Discovery Park proposal team. The DP proposal team will contact the PI to begin working on the proposal budget. The DP business office will complete the entire project budget including all co-principal investigators on the project.

Shared Credit between Discovery Park and the Academic Units

Proposal Credit

Proposal credit is reported in Discovery Park as well as the academic units in which the principal investigators are homed. If a proposal is routing through Discovery Park, the first page of the transmittal checksheet should list the appropriate Discovery Park center in box 9. Discovery Park receives credit for proposals that are listed in this box, however, other units on campus do not receive credit through this mechanism. Academic unit credit is captured through the collaborative effort of each principal investigator that is listed on the transmittal checksheet. This process ensures that the academic units receive the same credit that they would have received had the proposal gone through their school/college. In addition to this credit, on page 3, question 18 on the checksheet, one official Purdue Center can also be listed to show their affiliation with the project.

The PI, all co-PI's and their Department Heads must sign the transmittal checksheet or give their electronic approval of the proposal. The proposal must also be signed by the PI's dean, the Discovery Park center director and the executive director of Discovery Park.

Expenditure Credit

Expenditure credit is also dually recorded between Discovery Park and the academic units. Minors are set up on Discovery Park accounts just as they are set up for any large project running through a school/college. The minors are specific to a principal investigator's work on the project. These minor accounts have the home department number of the principal investigator coded into the system so that all expenditures can be tracked back to the home department and appropriate credit given to the unit.

Seed Grants

Discovery Park centers offer internal seed grant opportunities throughout the year. These opportunities are announced by the center offering the seed grants through a request for proposals (RFP) sent to West Lafayette faculty members. These requests solicit research proposals from faculty and staff with interests related to a specific research area. Anyone with interest is invited to submit a proposed statement of work, budget prepared by the business office and a signed transmittal checksheet. Timelines for announcing successful proposals are outlined in the RFP.

Intellectual Property

The formula for royalty distribution remains the same across the University. The PI, the home department, and the Research Foundation each receive a third of the royalties received. Please refer to *Executive Memorandum No.I B-10* for details.

For Assistance

Contact Alan H. Rebar, Executive Director and also Senior Associate Vice President for Research at rebar@purdue.edu.

Also visit the Discovery Park Web site at http://www.purdue.edu/ DiscoveryPark. You also may e-mail discoverypark @ purdue.edu or call (765) 494-7766. ❖

Chapter Five

Proposal Preparation and Submission

Once a faculty member has formulated an idea for a project and determined a potential sponsor, the departmental business office and Sponsored Program Services (SPS) will assist the faculty member to ensure that the proposal developed is fully costed and satisfies both the sponsor's application guidelines and the University's regulations.

For the preparation of the technical portion of the proposal (i.e., the description of the research, teaching, or service project to be carried out), the Principal Investigator (PI) or Co-Principal Investigators (Co-PIs) primarily will consult written application instructions from the granting agency and perhaps contact (by phone, e-mail, or in-person) appropriate agency personnel.

The departmental or school business office and Sponsored Program Services will assist in completing the various other components of the proposal (e.g., budget preparation, assurances and certifications, cost sharing and resource commitment memos, and the Proposal Submission Form). After the PIs are satisfied that they have met all of their responsibilities with respect to proposal preparation, the proposal should be submitted to their academic business office.

Business Office's Role in Proposal Preparation

The academic business office can assist the PI in all steps of the proposal preparation process including:

- reviewing sponsor guidelines for budget instructions;
- reviewing and discussing a draft budget with the PI;
- preparing internal documents such as budget work papers, Proposal Submission Form, etc.;
- facilitating the approvals needed for University cost sharing;
- reviewing current and pending grant information;
- completing budget forms required by the sponsor;
- obtaining appropriate administrative signatures;
- delivering the proposal to SPS; and
- assisting with electronic proposal submissions.

Proposal Submission Deadline Policy

The submission policy is divided into three categories based upon processing requirements and advance timeliness as follows:

1. *Non-competing renewal proposals* – These proposals must be received in SPS *in final form no later than 10:00 a.m. on the submission date.*

2. *Large, interdisciplinary, or otherwise complex proposals* – The Principal Investigator should contact the SPS Proposal Office via e-mail (proposal@purdue.edu) or web form (http://www.purdue.edu/SPS/proposals/specasstreq.html) no fewer than 10 working days prior to the submission date. After notification, staff from the business office, SPS and the Office of the Vice President for Research (OVPR) will actively work with the PI in the preparation of these proposals in the days leading up to the submission date. These proposals must be *in final form and received in SPS by 10:00 a.m. the day of the submission date for final processing.*

3. All other proposals, in their final form, must be submitted in SPS *no later than 10:00 a.m. two business days prior to the submission date.* If the deadline for submitting the proposals to SPS would normally fall on a Friday, the deadline is automatically extended to 10:00 a.m. the following Monday. Schools and colleges will establish their own deadlines for when the proposal should be received for Dean's Office review.

The submission date is the day the proposal must leave Purdue to reach the agency by its receipt date. With this additional time, staff in the academic business offices, Sponsored Program Services and Office of the Vice Provost for Research can provide a thorough review of the proposal prior to submitting to the sponsor. The policy and related documents may be found at http://www.purdue.edu/research/vpr/proposal/grant_process.html.

Special Note

Proposals requiring President and Provost approvals should be at SPS at least two weeks prior to the sponsor's deadline.

Examples of proposals requiring these approvals are:

- Proposals requiring a commitment from the President or a University Vice President to meet cost sharing/matching obligations.

- Proposals requesting funding from the Lilly Endowment.

Limited Proposal Submissions

Purdue has an internal deadline for proposals with numerical limitations on submission. The process is outlined at http://dagon.admin.purdue.edu/cgi-bin/lsid.cgi and includes the following process:

1. Letters of intent
2. Preproposals
3. Review and selection
4. Feedback

Electronic Proposal Submission

Many sponsors now require electronic submission of proposals. The systems most commonly used are NSF Fastlane, NIH Commons, and Grants.gov. Information concerning these systems is available on the SPS website http://www.purdue.edu/sps/proposals/electronicsub/index.html. If a sponsor requires electronic submission, please contact your department business office and SPS early in the process to ensure no delays in submitting the proposal. Issues that need to be resolved in advance include proper software and registration for the system.

Industrial Proposals

There are several major differences between how SPS handles proposals to industry and those to government sponsors. Proposals going to industrial sponsors require an agreement (e.g., contract). This agreement is prepared and negotiated by the University Contracting Group (UCG) and requires a contractually binding institutional signature. Because the agreement is a legal document, industrial proposals require a more extensive review; thus, requiring more time to process. Industrial proposals will not be sent to the sponsor until the University Contracting Group has prepared an agreement. Sponsors may request changes to the agreement Purdue sends to them. This can result in extended negotiations between SPS and the sponsor.

Proposal Submission Form

The purpose of the Proposal Submission Form (PSF) is to raise questions that should be considered by faculty participants and University administrators before endorsing a proposal to a funding agency. The PSF provides University staff with adequate assurances and information regarding the accompanying proposal to ensure that University and federal guidelines are fulfilled, and that all parties who will participate in the proposed project review the proposal and approve its submission to the sponsor.

Sometimes it is not possible to obtain all the signatures on the PSF before bringing the proposal to SPS. When this occurs, SPS will accept a copy of the PSF with the original proposal, work papers, budgets, etc., and all copies of the proposal to be submitted to the sponsor. With this information, the proposal can be reviewed and packaged for submission. The original PSF must be delivered to the SPS Proposal Office no later than noon on the day the proposal is to be sent to the sponsor.

Sponsored Programs Services Role in Proposal Processing

The Sponsored Program Services (SPS) Proposal Office receives proposals from the PI's academic business office and coordinates their review and submission to sponsoring agencies. Their role includes the following:

- provide special assistance on large, interdisciplinary proposals such as
  1. reviewing sponsor guidelines and identifying any unique requirements for the proposal
  2. following-up with subcontractors to obtain institutionally approved work statements and budgets
  3. assistance with securing approvals for cost sharing commitments
  4. securing approvals for a new center or institute (if necessary)

- quick review of technical proposal to ascertain type and scope of proposal

- reviews Proposal Submission Form

- assures all regulatory requirements are identified

- reviews cost sharing and related documentation

- reviews budget to check if project is correctly costed

- ensures that all Purdue information included in proposal is correct and complete

- for Center proposal, obtains necessary documentation for further approval

- verifies that budget data in proposal matches the budget justification

- review for export control applicability

- provides Institutional approval for proposal

- release proposal and/or mails out proposal. ❖

Chapter Six

Awards

Role of SPS in Establishing Awards

SPS negotiates and approves for the University all contracts and agreements for sponsored research, facility, and instructional programs before such contracts and agreements are signed and/or accepted by officers of Purdue University. SPS assists in the University's review of sponsored program funds to ensure they are expended in accordance with sponsor/federal regulations and preparation of financial expenditure reports. SPS also serves as a resource center on the contractual matters of sponsor regulations for all faculty and academic business offices. The awarding documents received from sponsoring agencies come in several forms as described in "Types of Awards" document on the SPS Web site (http://www.purdue.edu/sps/accountmgmt/types.html).

Review of an Award Document

SPS receives many awards that do not require signatures on behalf of the University and may be assigned an account number upon receipt. However, when SPS receives notification of an award that: 1) does not require signatures but includes certain terms and conditions that must be reviewed and approved and/or 2) does require signatures on behalf of the University, SPS must review the award document.

After review, the document is signed by the representative signatory of the University (if a signature is required). Sometimes the sponsor sends the award documents or contract to the PI. If this happens, the PI should never sign the document on behalf of the University. If there is a signature block provided for the PI, the PI should sign in that space and then immediately forward the contract to SPS.

If the sponsor has not signed the document, SPS still reviews a copy for University signatures and then returns it to the sponsor asking them to sign all copies and return a fully executed copy. **PI's should encourage the sponsor to respond as soon as possible to this type of request.**

The sponsor will occasionally return the fully executed documents to the PI. If this occurs, the PI should forward them immediately to SPS, as an account number cannot be set up until the fully signed agreement is received. Upon receipt of the fully executed copy, SPS will issue an account to the PI.

The award process will be delayed if a PI has not received approval from the appropriate University committee for the use of radioactive materials, vertebrate animal subjects, human research subjects, or recombinant DNA when required.

Terms and Conditions

The University Contracting Group will communicate to the PI any nonstandard terms and conditions associated with any industrial or government contract. It is important for the PI to understand these terms and conditions before the contract can be executed (e.g., publication rights, intellectual property clauses, etc.).

Notice to Proceed

If funding of a proposal is certain, but administrative details or finalization of contractual arrangements will delay receipt of a fully signed award, a "Notice to Proceed" (NTP) may be requested by the PI through his/her business manager.

SPS will contact the financial person at the sponsoring agency to verify funding. If funding is verified, then Purdue will assume liability for any expenses incurred until an award is received, and will then establish a project account to be used for expenses. If funding cannot be verified, the department may wish to assume project liability.

NTPs are normally only authorized for routine expenditures, i.e., salaries and supplies. Special approval is necessary if travel or capital equipment expenditures are necessary while on a NTP. Travel and/or capital equipment expenditures should be specifically stated on department-backed NTPs.

Award Process

Once a fully signed or approved contract or grant letter is received from a sponsor, SPS assigns a unique account number in the University's accounting system to be used for project expenses. If project activities are to be carried out in more than one department, multiple accounts can be established for the same project. PIs should notify their business manager during the proposal stage if multiple account numbers are required (see major and minor accounts).

Once there is a fully executed agreement or Notice of Grant Award, SPS will notify the business managers and PIs of the new account number via electronic mail. If an account number can not be established, the issues needing to be resolved will be communicated to the business manager and PI.

Major and Minor Accounts

Multiple account numbers for one project, called major/minor accounts, can be established by SPS. Major and minor funds are established for some of the following reasons:

- The project is to be conducted by personnel in more than one department;

- There is more than one F&A rate (off-campus activity involved);

- There are different program components within the same project that need to be accounted for separately;

- There are participant costs included in the award.

The major account is established in the department of the PI and the business manager for that department is normally responsible for the allocation of funds to the minors.

Amendments

Any amendments (e.g., change of dates, change in award amount, change in scope of work, etc.) to the agreement at a later date must follow the same procedures as any new proposal. ❖

Chapter Seven

Account Management

PI's Role in Account Management

The PI's primary roles in managing sponsored project accounts are:

- Determining allocability of costs (e.g., benefit to the project). The PI, or their staff with firsthand knowledge of the project, has primary responsibility for determining whether a cost benefits a project.

- Monitor expenditures using AIMS (Account Information Management System);

- Notifying Sponsored Program Services (SPS) when significant changes occur with the project (e.g., change in scope of work or level of effort).

- Understanding the terms and conditions of the agreement.

- Submitting timely technical reports.

Business Office's Role in Account Management

Once an award is received, the academic business offices assist PIs with the project administration by:

- Ensuring costs are within sponsor and University guidelines;

- Introducing the PI to AIMS;

- Preparing projections of expenditures;

- Helping obtain any rebudgets or other necessary approvals;

- Interfacing with SPS on fiscal matters;

- Communicating changes in policy, problems, etc.; and

- Coordinating fiscal aspects upon project expiration.

Monitoring of Project Expenditures and Use of Funds

Once a project account number has been established, SPS, the business managers, and the PI share the responsibility of monitoring project expenditures to ensure compliance with sponsor, federal, and University policies. PIs should direct questions regarding allowable expenditures to their business managers, who may consult with SPS if necessary.

Sponsor guidelines are available at http://www.purdue.edu/sps/accountmgmt/priorapproval/paguidelines.html.

PIs can use AIMS (http://www.purdue.edu/aims/) to access financial information on their sponsored program projects. AIMS provides budget, expenditure, and balance data in summary and detail views. Account information is secure on the AIMS Web site. PIs who have questions regarding the interpretation of this data may wish to contact their business office for assistance.

If project expenditures exceed the budget, SPS will notify the business manager and subsequently "lock" the project account, allowing no further charges to be processed until the overdraft situation is resolved. Project accounts also automatically lock 50 days after expiration (unless a continuation or extension is received from the sponsor) or on the 20th day after the end of the month for projects on Notice to Proceed.

Post-Award Adjustments

Prior Approval (Institutional)

Some federal agencies (e.g., NIH, NSF, USDA, DoE, NASA, DoD, DE, EPA) permit the grantee institution local authority to rebudget between budget categories when the expenditures are necessary for the successful continuation or completion of the research project. For projects from these agencies, the rebudgeting process is initiated by the PI via a form (http://www.purdue.edu/sps/pdf/patemplate.pdf) to SPS requesting **prior approval** for the expenditures. The rebudget form must be "before-the-fact."

The prior approval rebudget must include signatures of the PI, department head, (or director of Institute, Center, or Agricultural Research Services) and dean, if applicable. The department head (or director) signature indicates academic approval of the proposed request.

Prior Approval (By Sponsor)

Other federal agencies (e.g., DoT, DoI, AID) as well as state agencies, foundations, and foreign sponsors have not given Purdue the authority to rebudget between categories, and the rebudget request must be submitted to the agency for sponsor approval. These letters must be signed by the PI, department head and dean, if applicable. Sponsors require the signature of an institutional official before they will act upon such a request, so the letter should be sent to SPS before it leaves the University. An example of a letter being submitted to the sponsor and what must be contained in the memo can be found on the SPS Web site at http://www.purdue.edu/sps/doc/sponspa.doc.

Both institutional and sponsor prior approval requirements are summarized at: http://www.purdue.edu/sps/accountmgmt/priorapproval/index.html.

No-Cost Extensions

Another type of adjustment that may need to be made to a sponsored project is known as a no-cost extension. If additional time beyond the established expiration date is required to ensure adequate completion of the original scope of work with the funds already made available, the PI can request a no-cost extension. The request should contain a summary of progress and an explanation of the need for an extension of time.

The fact that funds remain at the expiration of an award is not in itself justification for a no-cost extension.

No-Cost Extension (Institutional)

Again, some federal agencies (e.g., NIH, NSF, DoE, NASA, USDA, DoD, DE) permit the grantee institution local authority to extend the expiration date at no additional cost to the sponsor. The request is initiated by the PI via a form (http://www.purdue.edu/sps/accountmgmt/priorapproval/painstruct.html) and must be sent to SPS prior to the current project expiration date (some agencies require notification a specific number of days prior to project expiration).

No-Cost Extension (By Sponsor)

For those federal agencies (e.g., DoT, DoI, AID, EPA), state agencies, foundations, and foreign sponsors that do not permit no-cost extensions to be granted locally, the written request should be addressed to the sponsor's program or grants officer. The request must be sent through SPS prior to the current project expiration date (some agencies require the request a specific number of days prior to project expiration). An example of a letter being submitted to the sponsor and what must be contained in the memo can be found on the SPS Web site: http://www.purdue.edu/sps/doc/sponspa.doc.

Reporting Requirements

SPS Award Management staff also work with PIs on sponsor reporting requirements and intellectual property reporting.

Sponsor Reporting Requirements

PIs are required by the sponsoring agency to submit reports on the research conducted. The sponsor may require progress reports at specified times. Instructions on reporting requirements and the preparation of such reports are included as part of the grant or contract conditions. It is important for these requirements to be met on a timely basis. SPS routinely receives requests from sponsors to verify final technical report submission. PIs should submit a copy of the transmittal memo or cover page of the report to SPS and to their business office (referencing the internal account number).

Failure to meet sponsor-reporting requirements on the part of the PI can jeopardize existing and future funding for the PI and the entire University.

Intellectual Property Reporting

The Office of the Vice President for Research (OVPR) has the responsibility to report to the sponsor any inventions or copyrightable materials conceived and/or reduced to practice during the course of a project. Every award is monitored on its anniversary date (12 months after the start date) and termination date. On or around these dates, the PI will receive SPS's Invention/Copyright Monitoring Form which needs to be completed and returned to SPS.

Unexpended Balances

Based upon the terms of the sponsor's award, any unexpended funds at project expiration may be:

- Carried forward;
- Returned to the sponsoring agency; or
- Transferred to a residual account if it is a *fixed price agreement.* ❖

Chapter Eight

Research Administration and Compliance

Office of Research Administration (ORA)

The associate vice president for research and director of university research administration is responsible for assisting researchers in complying with federal and state statutes and regulations affecting research, and for certifying to sponsoring agencies that PIs and the institution (Purdue University) have satisfied all applicable requirements. As a first step, PIs identify regulated activities associated with their proposed projects and report the status of necessary regulatory approvals on the Proposal Submission Form created in the COEUS system. ORA works SPS and the various institutional regulatory committees after proposals are submitted to ensure that all regulated activities are identified on the Proposal Submission Form so that we can avoid unnecessary delays when the sponsor informs SPS that a project has been funded. Please note that, while the status of regulatory review and approval will only rarely delay submission of a proposal, no sponsored project can be awarded or initiated (regardless of the source of funds) until required approvals by regulatory committees have been verified. A special Web site has been created by Purdue's Radiological and Environmental Management (REM) to assist researchers with information and procedures associated with research compliance (http://www.purdue.edu/rem/home/files/researchers.htm). Questions regarding regulations applicable to research may be directed to:

Peter E. Dunn, Ph.D.
   Associate Vice President for Research and Director of University Research Administration
   pedunn@purdue.edu, 49-43996

Regulatory Approvals for Research Involving Human Subjects, Vertebrate Animals, Recombinant DNA and Biohazardous Materials

Principal investigators (PIs) are responsible for obtaining regulatory approval for the use of human subjects, vertebrate animals, recombinant DNA, and biohazardous materials for their projects in the beginning stages of proposal development. It is important that all regulatory approvals are current or in the process of being reviewed when proposals are submitted. Should a sponsor issue an award and approvals are not current or correct, establishment of the project account(s) will be delayed. Regulatory approvals must be in place prior to beginning any work on the project. PIs who plan to work with regulated materials such as Select Agents, radioisotopes or radiation producing materials (including Class IIIb or IV lasers), pesticides, certain drugs or controlled substances, and hazardous chemicals, must have all the necessary approvals in place *before* the materials are brought on campus. PIs are also responsible for ensuring that regulatory protocols remain up-to-date and active for the duration of the project grant through the appropriate continuing review process.

Forms and procedures for describing and obtaining regulatory approval for projects may be obtained via the appropriate oversight committee Web sites or from the committee's campus offices.

Directory of Regulatory Oversight Committees

Committee on the Use of Human Research Subjects (Institutional Review Board-IRB)

   Hovde Hall, Room 307

   Richard D. Mattes, Chair

   Jeannie DiClemente, Associate Chair, Social Sciences IRB

   Regina Kreisle, Associate Chair, Biomedical IRB

   Kristine Hershberger, IRB Administratior
   49-66702 or 49-45942

   Damay Peter, IRB Administrative Assistant, Biomedical IRB, 49-46450

   Jeff Bailey, IRB Administrative Assistant Social Sciences IRB, 49-46450

   Reatha Walls, Office Assistant, 49-45942

   Dorothy Roberts, Secretary
   Human Participants Protection Program, 49-45942
   irb@purdue.edu,
   FAX:49-48323

   http://www.irb.purdue.edu/

Purdue Animal Care and Use Committee (PACUC)

Veterinary Animal Holding Facility (VAHF)

Gary Carlson, Chair

Janice Sojka, Associate Chair

Lisa Snider, PACUC Administrator
pacuc@purdue.edu, 49-47206

FAX: 49-62415

http://www.purdue.edu/research/vpr/compliance/animals/index.shtml

Laboratory Animal Program (LAP)

Animal Holding Facility (AHF)

William Ferner, D.V.M., Dipl. ACLAM, Director
ferner@purdue.edu

Peggy O'Neil, D.V.M., Laboratory Animal Veterinarian
peggyoneil@purdue.edu

Lee Matthews, DVM, Laboratory Animal Veterinarian
dmatthew@purdue.edu

Summer Boyd, Veterinary Technician
smboyd@purdue.edu

Amanda Riley, Veterinary Technician,
ariley@purdue.edu

Carol Dowell, Training Coordinator
dowellc@purdue.edu

Sheila Light, Secretary
lap@purdue.edu, 49-49163

FAX: 49-62415

http://www.purdue.edu/research/vpr/compliance/animals/index.shtml

Institutional Biosafety Committee (IBC)

PUSH, Room B21

Steven S. Broyles, Chair

Richard J. Kuhn, Associate Chair

Robert Golden, Biosafety Office and Committee Secretary
ibcomm@purdue.edu, 49-41496

Rachel DeRudder, Biosafety Officer Assistant
ibcomm@purdue.edu, 49-47968

FAX: 49-62572

http://www.purdue.edu/research/vpr/compliance/rdna/index.html

Radiological Control Committee

REM/CIVL, Room B173

James Schweitzer, Radiation Safety Officer
jfschweitzer@purdue.edu, 49-42350

Mary Handy, Health Physicist
maryjo24@purdue.edu, 49-42721

http://www.purdue.edu/REM/

Research Integrity

It is the responsibility of each Principal Investigator (PI) to ensure the integrity of research conducted under their leadership and guidance. Federal and non-federal sponsored projects may require the PI's signature on applications for project support certifying that they understand and accept this responsibility. Purdue's Policy on Research Integrity is described in Executive Memorandum C-22 (http://www.purdue.edu/policies/pages/teach_res_outreach/c_22.html). Researchers concerned with potential violations of research integrity should refer to C-22 and may contact their dean or Associate Vice President Peter Dunn, who serves as Purdue's Research Integrity Officer (pedunn@purdue.edu, 49-43996).

Financial Conflict of Interest

Purdue's Policy on Conflict of Interest is described in Executive Memorandum C-39 (http://www.purdue.edu/policies/pages/human_resources/c_39.html). On the Proposal Submission Form, the PI and other investigators on the project certify whether or not they have a significant financial interest in the project or sponsor that could reasonably be anticipated to create a potential or real conflict of interest that could threaten the integrity of the proposed research. If the answer to this question is "yes," investigators with such financial interests are required to disclose them to the University's Conflict of Interest Officer (Associate Vice President Peter Dunn) who will determine if the conflict(s) must be reduced or eliminated or if they can be managed administratively. The most common financial interests requiring disclosure are associated with a researcher's financial interest in a start-up company sponsoring the project or in intellectual property licensed for commercial development. Under certain circumstances, the existence of a conflict of interest must be reported to the sponsor to which the proposal is submitted. In all cases, conflicts of interest associated with sponsored projects must be resolved before an award can be established.

For assistance, contact Voichita Dadarlat (49-61763, voichi@purdue.edu) or William Baitinger (494-67563, wbaiting@purdue.edu.

Export Controls

Several federal statutes, including the International Traffic in Arms Regulations (ITAR administered by the Department of State), Export Administration Regulations (EAR administered by the Department of Commerce) and the Office of Foreign Assets Control (OFAC administered by the Department of Treasury), control access to certain technologies by foreign persons both within and outside of the United States. Research projects studying or utilizing these controlled technologies may be subject to significant restrictions regarding participation of foreign persons in the project, and publication and dissemination of the results of the research. SPS and ORA will make every attempt to identify export controls applicable to proposed research as soon as possible in the proposal review process. Inevitably, the researcher's assistance will be required to correctly analyze and classify research, and identify export control issues. If an investigator becomes aware of export control restrictions associated with a planned project, they should contact Associate Vice President Peter Dunn as soon as possible. When terms and conditions associated with a sponsor award impose export restrictions, ORA and/or SPS will contact the PI to ensure that they are aware of the restrictions and to implement a management plan to ensure that the controls are observed. Violations of export controls can result in significant institutional and personal penalties. The answers to Frequently Asked Questions regarding export controls may be found at http://www.purdue.edu/research/vpr/compliance/exportregulations.html.

Controlled Substance Program

Controlled substances are drugs or chemicals that have the potential for illegal use. Generally, in research, controlled substances are used for anesthesia, tranquilizing, or euthanasia, but they can also be used in pharmacological studies or other related chemical processes.

Researchers who need to use controlled substances as part of their protocols or projects must have a licensed individual associated with or listed on their protocol to obtain and use the controlled substance. Researchers who need to obtain a controlled substance license must notify Radiological and Environmental Management (REM) and REM staff will assist with the registration process for the State of Indiana and with the federal Drug Enforcement Administration.

University Controlled Substance procedures may be found at: http://www.purdue.edu/rem/eh/DEA.htm. For assistance, contact Robert Golden (49-41496, rwgolden@purdue.edu) or Rachael DeRudder (49-41496, rederudder@purdue.edu).

Other Certifications and Assurances

All federal and some state funding agencies require that a variety of additional certifications and assurances accompany a proposal at the time it is submitted. Some examples of these other certifications and assurances are: Debarment, Suspension, and Ineligibility; Federal Debt Non-Delinquency; Drug-Free Workplace; Lobbying; Assurances of Non-Discrimination in Employment Practices; and Compliance with the Civil Rights Act, Freedom of Information Act, Privacy Act, and Clean Air Act.

If the agency's guidelines contain certifications, PIs should include them (UNSIGNED) with the proposal that is delivered to SPS. SPS staff will complete the forms and obtain the required institutional signatures. SPS also has blank forms for most agencies and will complete and add them to the proposal if the PI does not include them. ❖

> Please note: PIs are not authorized to sign documents when an authorized institutional signature is requested.

Chapter Nine

An Overview of the Graduate School

Organization

In 1929 the Board of Trustees authorized the establishment of the Purdue University Graduate School. Since then, more than 60,000 master's degrees and nearly 21,000 doctoral degrees have been conferred. Fall 2006 enrollment is 7,023 students, an increase of 91 from the previous year.

Cindy H. Nakatsu, professor of agronomy, is the interim dean of the Graduate School. Associate deans Thomas W. Atkinson, Phillip E. Pope, forestry; Gita N. Ramaswamy, and Jon A. Story, nutritional physiology, along with the directors of Graduate School programs and Graduate School staff, administer the Graduate School's activities.

The Graduate School's administrative and student service offices are located in Rooms 160, 170, and B80 in Young Hall. Office hours are 8 a.m. to noon and 1 p.m. to 5 p.m., Monday through Friday. The Graduate School Web site is located at http://www.gradschool.purdue.edu/.

Graduate Council

The Graduate Council—a committee of faculty who have successfully guided students through master's and doctoral degree programs—meets monthly during the fall and spring semesters and is responsible for academic policies related to postbaccalaureate study and degree programs, Graduate School admissions, standards of work, courses and programs of study.

Graduate Council membership consists of 25 appointed voting members, four ex officio voting members, and the administrative staff of the dean of the Graduate School (as ex officio nonvoting members). The 25 appointed voting members of the Council are named by the president of the University, normally to serve terms of three years. Generally eight new members are appointed each year.

Graduate School Degree Programs

The Graduate School at Purdue University supports innovative interdisciplinary programs and offers graduate degrees in more than 70 departments and programs on the West Lafayette campus and a combined total of 31 programs on Purdue's other campuses at Indiana University Purdue University at Indianapolis, Indiana University Purdue University at Fort Wayne, Purdue University Calumet (Hammond), and Purdue University North Central (Westville). Doctoral degrees require completion of a dissertation and a minimum of 90 credit hours (course work and research credits) which includes up to 30 master's degree credit hours from an accredited university.

Faculty and staff from each of the degree programs direct graduate education for their areas. College or school deans for graduate education, heads of graduate programs, directors of graduate studies, chairs of departmental graduate committees, and departmental graduate contact persons work with faculty to manage various aspects of graduate education within their department, program, college, or school.

Degree Programs
College of Agriculture

Agricultural Economics
Agronomy
Animal Sciences
Biochemistry
Botany and Plant Pathology
Entomology
Food Science
Forestry and Natural Resources
Horticulture
Youth Development and Agricultural Education

College of Consumer and Family Sciences

Child Development and Family Studies
Consumer Sciences and Retailing
Foods and Nutrition
Hospitality and Tourism Management

College of Education

Curriculum and Instruction
Educational Studies

College of Engineering

Aeronautics and Astronautics
Agricultural and Biological Engineering
Biomedical Engineering
Chemical Engineering
Civil Engineering
Electrical and Computer Engineering
Engineering Education
Industrial Engineering
Materials Engineering
Mechanical Engineering
Nuclear Engineering

College of Liberal Arts

Communication
English
Foreign Languages and Literatures
Health and Kinesiology
History
Philosophy
Political Science
Psychological Sciences
Sociology and Anthropology
Speech, Language, and Hearing Sciences
Visual and Performing Arts

Krannert School of Management

Economics
Management
Organizational Behavior and Human Resource Management

College of Pharmacy, Nursing, and Health Sciences

Health Sciences
Industrial and Physical Pharmacy
Medicinal Chemistry and Molecular Pharmacology
Nursing
Pharmacy Practice

College of Science

Biological Sciences
Chemistry
Computer Sciences
Earth and Atmospheric Sciences
Mathematics
Physics
Statistics

College of Technology

Technology

School of Veterinary Medicine

Basic Medical Sciences
Veterinary Clinical Sciences
Veterinary Pathobiology

Interdisciplinary Programs

Opportunities for advanced degrees in interdisciplinary pro-
grams continue to grow. New programs are developed through
faculty and student interest and the cooperation of faculty
members and departments. Dean Jon Story directs the Office of
Interdisciplinary Graduate Programs in the Graduate School.

Construction began in late 2002 on Discovery Park, a 40-
acre interdisciplinary research complex. The park brings
together researchers from a wide range of specialties.
Ten major centers focus on nanotechnology, bioscience,
e-enterprises, entrepreneurship, learning, manufacturing,
environment, oncology, cyberinfrastructure, and energy.

Interdisciplinary Programs

American Studies
Comparative Literature
Computational Science and Engineering
Ecological Sciences and Engineering
English and Philosophy
Food Science
Gerontology*
Information Security
Interdisciplinary Engineering
Life Sciences (PULSe)
Linguistics
Nutrition
Philosophy and Literature
Veterinary Medicine (SVM)
Women's Studies*

Graduate minor within participating department

Certificate Programs

Opportunities for graduate study at Purdue are available to
those who wish to complete pre-specified courses to attain
a certificate in a specific area. Certificate programs require
a minimum of nine credit hours. Currently, graduate-level,
academic credit certificates are offered in:

Adult Nurse Practitioner
Applied Heat Transfer
Applied Statistics
Assurance Education
Digital Signal Processing
English as a Second Language
Gerontology
Materials Engineering
Natural Language Processing
Regulatory and Quality Compliance
Survey Research

Financial Assistance

The Graduate School's funding database is located at http://www.gradschool.purdue.edu/funding/.

Three primary sources for financial assistance are:

- Fellowships and grants,
- Graduate staff appointments, and
- Student loans.

Fellowships

Fellowships for degree-seeking graduate students who demonstrate superior academic abilities:

- **George Washington Carver Doctoral** — four-year fellowship established by Purdue President Martin C. Jischke awarded annually to encourage students from Historically Black Colleges and Universities (HCBU), Hispanic-serving institutions (HSI), or Tribal colleges to attend Purdue University

- **Frederick N. Andrews** — two-year fellowship with two years of support from a participating college, school, or department, intended for beginning Ph.D. students

- **Ludwig Kruhe —** one-year fellowship for dissertation-level students in Agricultural Economics, Civil Engineering, Foreign Languages and Literatures, History, Management, and Political Science.

- **Lynn**— one-year interdisciplinary program fellowship with three years of support from a participating department or school, intended to recruit Ph.D. students

- **Ross** — one-year fellowship with three years of support from a participating department or school, for beginning Ph.D. students

- **Purdue Doctoral** — two-year fellowship for the recruitment of new graduate students, intended to enhance the diversity of the graduate student body by encouraging students from diverse backgrounds with diverse views and experiences to enroll at Purdue. Includes two additional years of support from a participating college, school, or department

- **Charles C. Chappelle** — one-year fellowship awarded to students with Purdue undergraduate degrees (any campus) to attend graduate school on the West Lafayette campus

- **David M. Knox** — one-year fellowship with an additional year of program support, intended to enhance the diversity of the graduate student body through the recruitment of students from diverse backgrounds

- **Bilsland Special Initiatives** — one-year fellowship intended to provide an opportunity for graduate students, under the direction of a faculty member, to develop and submit a proposal related to any one of the Graduate School's strategic plan goals.

- **Bilsland Dissertation** — one-year fellowship to provide support to outstanding Ph.D. candidates in their final year of writing.

Additional years of support are usually in the form of teaching or research assistantships. Fellowships carry with them full tuition scholarships.

Grants and Other Awards

- **Incentive Grants**—encourage graduate students to seek external multi-year fellowship support. Eligible graduate students receive awards of $500 by applying to a specified list of fellowships.

- **Travel Grants —** awarded by the Purdue Graduate Student Government (PGSG) to graduate students for presenting research findings at professional meetings. All graduate students are eligible to apply for these grants. Detailed information is available on the PGSG Web site at http://expert.ics.purdue.edu/~pgsg.

- **A. H. Ismail Interdisciplinary Program Doctoral Research Travel Grant —** established in memory of Abdelrahman Hafez Ismail, a Purdue professor who pioneered in health and fitness research, this award assists students to present their doctoral research at national or international conferences.

- **Andrews Environmental Grant —** supports graduate student research focused on improving the world environment

- **Summer Research Grants —** provides two months of research support to students who served as teaching assistants in the preceding fall and spring semesters

Graduate Student Appointments

Almost two-thirds of graduate students hold appointments as Graduate Research Assistants, Graduate Teaching Assistants, Graduate Lecturers, or Graduate Administrative/Professionals. Graduate appointments offer remission of tuition and most fees.

Financial Aid and Employment Opportunities

The Division of Financial Aid maintains a list of departments on campus that are seeking part-time employees. This list is accessible through the Web. Financial Aid staff will assist students in applying for student loans.

Reference for Advising Graduate Students

Policies and Procedures for Administering Graduate Student Programs serves as the source for guidelines established by the Graduate Council and Graduate School. It includes information on graduate faculty appointments, graduate student classifications, admissions, graduate staff appointments and fellowships, registration, and general academic requirements. This manual is available on the Web at http://www.gradschool.purdue.edu/faculty/resources/policies.cfm.

For Assistance

Please contact the Graduate School for assistance with any issue related to graduate education at Purdue.

Cindy Nakatsu, Interim Dean and Professor of Agronomy
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Tom Atkinson, Associate Dean
tatkinson@purdue.edu, 49-40245
> Admissions and records
> Ombudsman
> Graduate student life
> Purdue Graduate Student Government

Phillip Pope, Associate Dean and Professor of Forestry
ppope@purdue.edu, 49-46963
> Graduate faculty appointments
> Degree programs
> Program assessment

Gita N. Ramaswamy, Associate Dean
gita@purdue.edu
> Assessment
> CIC Course Share initiative
> Responsible conduct of research

Jon Story, Associate Dean and Professor of Nutritional Physiology, jastory@purdue.edu, 49-46963
> Interdisciplinary graduate programs
> Intercampus graduate programs

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> Secretary to the Graduate Council
> Special projects
> Administrative assistant to the deans

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Liza Boffen-Yordanov, Director of Development
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> Fundraising

Don Brier, Interim Director of Information Technology
brierd@purdue.edu, 49-40304
> IT strategic planning
> Database analysis
> Programming

Dwight Lewis, Director of Multicultural Programs
delewis@purdue.edu, 49-40945
> Multicultural program external funding
> HBI visitation program

Cyndi Lynch, Director of Fellowships and Professional Development, clynch@purdue.edu, 49-42598
> Graduate School fellowships
> Preparing Future Faculty
> Preparing Future Professionals

Dana Werner, Director of Graduate Student Recruitment Services, dkwerner@purdue.edu, 49-63310
> Recruitment services and strategy consultation
> Recruitment initiative awards program

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Ashlee Robertson, Director of Financial Affairs
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Visit the Graduate School's Web site at
http://www.gradschool.purdue.edu ❖

Chapter Ten

Patents and Copyrights

Policies and Procedures

Purdue University views technology transfer as an important tool to maximize the public impact of certain intellectual property created/invented through the scholarly activity of the University's faculty, staff, and students. To have an impact, discoveries, creations and inventions made at Purdue must be disseminated to the public. In the University setting, this dissemination process generally takes the form of open publication. However, with certain types of intellectual property, such as software and inventions where additional investment by the private sector may be important to create a commercial product, the public interest may best be served by protecting and licensing the creation or invention outside the University. In addition, the federal and corporate sponsors of Purdue's sponsored projects generally require formal disclosure and evaluation of intellectual property created in the course of the sponsored project as a contractual obligation of the grant recipient.

The goal of the Purdue Research Foundation's Office of Technology Commercialization (OTC) is to ensure that Purdue satisfies the contractual intellectual property obligations of sponsored projects and, more generally, that the creative products of Purdue's faculty, staff, and students will benefit the public. OTC works on behalf of the University to identify, evaluate the commercial potential, and protect (when appropriate) intellectual property created at Purdue, and manages the marketing and licensing of these properties.

OTC Web Site

Information about OTC and all its services to the Purdue community can be found on its Web site at: http://www.prf.org/otc/.

OTC Staff

OTC staff members can provide rapid answers to your questions concerning disclosures, marketing, agreements, and patents. For a complete staff listing, see http://www.prf.org/otc/staff_listing.asp.

Ownership of Intellectual Property

Executive Memorandum B-10 (http://www.purdue.edu/policies/pages/teach_res_outreach/b_10.html) describes Purdue University's policy on intellectual property. In general, "The University shall own all domestic and foreign rights in and to any and all Inventions and Materials made or developed by University personnel either in the course of employment by the University, or through the use of facilities or funds provided by or through the University." B-10 provides for management of University inventions and copyrights by OTC and the potential distribution of the net proceeds of creation/invention-related income to the creators/inventors and the University.

Disclosing a Creation/Invention to OTC

Purdue faculty, staff, and students are responsible for disclosing to OTC all creations/ inventions that arise from research or other projects conducted with University resources. For this purpose, OTC encourages faculty and staff to keep the following points in mind when they are working on a project that has (or may) lead to a new creation/invention:

1. Care should be taken in maintaining complete, permanent, dated, and contemporary records of an idea and its development;

2. If you think an invention has been made, schedule a pre-disclosure interview with the OTC professional in your area of technology. If you are not sure who to contact, please call OTC at 49-42610;

3. An "Invention Record and Disclosure Form" or "Copyright Materials Disclosure," which can be downloaded from the Purdue Inventors section of the OTC Web site at http://www.prf.org/otc/forms_agreements.asp, should then be completed and sent to OTC so that the creation/invention can be evaluated; and

4. Disclosure submitters will be asked to complete a statement of understanding regarding their obligations under Executive Memorandum B-10 as the disclosure is made.

In addition to writing a precise description of the creation/invention, the creator/inventor should take special care to list all of the individuals who may have made a creative contribution to the inventive concept. The formal naming of inventors on a patent (if filed) is a legal determination that will be made with the aid of an expert patent attorney once the patent application is completed.

It is important to submit an Invention Record and Disclosure Form once an inventive concept can be fully and precisely described, even if a physical embodiment of the idea has not been realized.

When a Disclosure is Received by OTC

Formal review of the copyrightable material or invention is initiated when a disclosure is received by OTC. The office evaluates the disclosed technology and, with the creator/inventor, determines whether it should be patented, copyrighted, trademarked, or otherwise managed. When intellectual property is deemed commercially viable, OTC takes the necessary legal steps to file a patent, register a copyright and/or trademark registration, and works toward locating an appropriate licensee.

OTC receives close to 250 disclosures each year describing potentially patentable technologies and copyrightable materials.

Review by the Committee on Patents and Copyrights

The Purdue Committee on Patents and Copyrights is composed of faculty members as well as administrators. The committee reviews new disclosures and approves both proposed distribution of net proceeds resulting from the disclosures as well as ownership of the intellectual property.

Promotion of the Creation/Invention to Industry

After OTC has received a creation/invention in the appropriate form and consulted with the submitter(s), a non-confidential description is prepared and forwarded to selected industry representatives to determine market interest. If a company expresses interest in learning more about the creation/invention, technical details are provided under a confidential disclosure agreement with PRF. The company's further evaluation of the creation/invention, which often involves direct communication with the researcher(s), may result in an interest to commercialize a creation/invention. Ideally, the next step would be negotiation of a license agreement and/or a research agreement with an option to license.

If the technology can be the basis of a start-up company, OTC will work with the inventors in providing linkages to potential business partners, investors and providers who can assist in getting the company off the ground.

Protection of Inventions

If the technology appears to have commercial interest, OTC will proceed to obtain patents or other intellectual property protection, at PRF expense. The office will try to obtain reimbursement of those costs by a third party, usually the company that has an interest in the invention. Accordingly, commercial potential is the prime factor in determining whether or not patent protection will be pursued.

Distribution of Income

When commercial agreements are established with companies, the invention may generate income. Subject to the University's discretion, Executive Memorandum B-10 provides for a division of net royalties between the University and the submitters of the disclosure. One-third of net proceeds is distributed to the submitter(s), one-third to the submitter(s) department(s), and one-third to the PRF Trask Fund for investment in promising disclosures.

Expenses for the patentability search, patent application fees, and legal fees are deducted from gross revenue resulting from that particular disclosure prior to income distribution.

Submitters' Participation with the OTC Process

OTC strongly encourages faculty, staff, and students submitting disclosures to stay involved with the process. In addition to the tasks involved in evaluating the technology and patent prosecution, faculty can often play a key role in identifying companies that may be good licensees. Also, faculty can assist OTC staff with technical communications to company contacts.

Other Services Provided by OTC

Because of OTC's close ties with industry, this office provides information on a number of other technology transfer matters besides the copyrighting, patenting, and licensing of creations/inventions developed by Purdue University personnel. Some examples are described below.

- Intellectual property and license terms in sponsored research agreements — OTC assists the University Contracting Group in the negotiation of intellectual property terms in sponsored research agreements.

- **Agreements for industrial review of proprietary materials** — OTC assists faculty by negotiation of agreements for those situations in which an outside enterprise wishes to examine proprietary materials. These agreements include:

1) "Confidential Disclosure Agreements" (CDAs) that outline the terms by which a company can review proprietary material from Purdue that is in a written format;

2) "Material Use Agreements" (MUAs) that outline the terms by which a company can evaluate the physical embodiment (e.g., biological or chemical) of proprietary materials from Purdue; and

3) "Permission to Use Agreements" that outline the terms for outside parties to use PRF-owned copyrighted works.

Trask Venture Fund

Technology Innovation Awards

This program is a continuation of the Trask program, which was established in 1974, with the objective of supporting short-term projects that will enhance the value of intellectual property disclosed to the Purdue Research Foundation. The goal is to create a strong patent position for the intellectual property and increase its value to potential licensees. Awards in this program are up to $100,000 for a period of one year. (For Technology Innovation Award guidelines, see the OTC Web site at http://www.prf.org/otc/**trask_fund.asp**)

All proposals will undergo dual review—a peer review for science/technology quality, and a technology commercialization review to assess commercial potential. Proposals to support technology development will be moved into the review process only after formal disclosure has been filed with OTC.

Pre-Seed Capital Investment Program

This program will utilize Trask funds as pre-seed capital for initial capitalization of qualified Purdue University technology-based startup companies. The goal is to provide pre-seed capital to move the company through the Gateways Program at the Research Park and enhance the potential to receive seed capital from Angels or Venture Capitalists. Awards from this program are limited to those who are starting a company that will license disclosed University technology. This program is limited to a one-time investment up to $250,000.

Awards will be made based upon an extensive review of the business plan and license agreement with the Purdue Research Foundation. The decision to provide one-time funding will also depend upon the potential for the company to attract seed capital and the assessed business plan.

Further Information

OTC is dedicated to improving its service to faculty and staff. To achieve this goal, OTC invites you to visit the OTC portion of the Purdue Research Foundation Web site (http://www.prf.org/otc/), where you will find information on how to contact the OTC technology commercialization team, as well as OTC's comprehensive technology commercialization fact list. ❖