MISSION

Our mission is to provide the best possible support for our faculty, staff and students to pursue funding and resources to conduct their program of research and engage in scholarly and creative activities as an essential component of their academic development at Temple University.

“Research is now woven into the fabric of Temple in a way that is unprecedented in our history.”

Temple’s 17 schools and colleges, nine campuses, hundreds of degree programs and nearly 38,000 students combine to create one of the nation’s most diverse and comprehensive public research and learning environments. Research is now woven into the fabric of Temple in a way that is unprecedented in our history. Temple faculty are leading the university to address the grand challenges of our society through their innovative discoveries, technologies, strategies and works. Our office is enormously proud to champion the research efforts of the faculty through an efficient and streamlined infrastructure designed to ensure that the conduct of research is managed with integrity, efficiency and quality. Our aim is to encourage faculty so that they can focus on what matters most – for their work to make meaningful contributions towards the goals of creating knowledge, providing societal benefits, and presenting the educational training and experiences our students need to thrive in their future endeavors.

This guidebook is offered to reinforce faculty endeavors to develop and manage their sponsored research projects and associated obligations for conducting research in a responsible manner. It presents an overview of the administrative structure connected with the research enterprise of the university. It introduces our newest researchers to the many resources available to support the implementation of their program of research.

The guide also outlines the internal and external sources of support for research, training opportunities to learn the basics for competing for funding, and the requirements that faculty must follow as part of the guidelines for responsibly conducting research.

Michele Masucci, Ph.D.
Vice President for Research

October, 2016
# STARTING YOUR RESEARCH PROGRAM

**Office of the Vice President for Research**

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TEMPLE’S RESEARCH ENTERPRISE

Temple University is one of the nation’s premier urban public research universities. Its research enterprise is designed to provide outstanding service for research investigators and to support Temple University in its efforts to increase funding, drive research expenditures, manage research integrity and compliance, and commercialize research results. An ongoing university five-year investment in research – emphasizing collaborative research activities across disciplines and building state-of-the-art research facilities – has spurred phenomenal momentum in the expansion and growth of the research enterprise.

Temple research stands for excellence in basic discovery, but is also noted for applied programs that translate these results into tangible outcomes for society. Over $50 million of the university’s funding supports education, meeting community needs, and economic development. A central goal for the research enterprise is to continue to foster internal connections and external partnerships to be able to engage with large scale, programmatic research activities. What distinguishes Temple’s approach is that we have embedded commercialization in this strategy. This leads to a diversification of research outcomes that includes both basic science accomplishments and applied research, resulting in protecting more intellectual property, developing spin-off company opportunities, engaging in nationally significant research discourse, and developing state-of-the-art replicable programs that can be adapted broadly in the U.S. and beyond.

World class faculty who lead research that matters for society enhance and reinforce Temple’s robust research enterprise. Recent accolades and achievements include these national rankings:

- **National Science Foundation** – Top 100 Universities in Research Expenditures
  - Ranked 88th overall in federal research expenditures
  - FY 13-15: averaged $234 million
  - FY 16: projected $250 million
  - 57th among public universities
  - $1,053,141,000 in funding requests – up 55% since FY11
- **U.S. News and World Report** – Ranked 118 Overall
  - #1 in online graduate business program
  - #13 in international business program
  - #26 in best hospitals – Fox Chase Comprehensive Cancer Center
  - #22 in graduation rate performance
- **Cybermetrics Lab** – Google Scholar citations via Webometrics
  - #18 ranking (up from #29 in 2015)
- **Carnegie Classification of Institutions of Higher Education** – Top Tier Designation
  - Classified as R1 – Highest Research Activity
  - Top 4% of universities in the United States.

The Office of the Vice President for Research (OVPR) includes functional divisions in grants administration, research development, research compliance and assurance, research accounting services, innovation, and electronic records administration, as well as various opportunities for business-industry partnerships. These divisions support faculty as well as college administrators to strategically align research administration processes and harmonize best practices across Temple’s 17 schools and colleges, as well as the Fox Chase Comprehensive Cancer Center.
Faculty are encouraged to seek out and participate in OVPR-sponsored opportunities to develop and refine grantsmanship expertise, engage in cross-cutting, multi-disciplinary research initiatives, and create innovative technologies for the commercial marketplace. This guide will help frame the essential components for every faculty member’s program of research at Temple.
GRANTS ADMINISTRATION

Grants Management
http://research.temple.edu/grants/roles-and-responsibilities

Grants Administration: Pre-Award Support

Temple's research awards portfolio consists of federal, state, local, industry, and foundation grant sources. More than 65% of the funding the university receives is from federal sources and over two-thirds of the funding is for biomedical research activities. The research enterprise is designed to foster and promote a comprehensive grants administration system, connecting critical pre- and post-award functions in an integrated and service-oriented program for faculty, staff, students, and collaborative groups.

Proposal Development: Grant Preparation, Review and Submission

Grants Management, an OVPR division, has oversight and coordination of the grant preparation, review, and submission process. Experienced grants and contracts specialists work with faculty, department and college business managers, and associate deans for research to help locate funding opportunities, review and interpret external sponsor guidelines, assist in proposal preparation, and submit proposals by the announced deadline. In addition to the Vice President for Research, they serve as key resources for faculty.

Grants Management identifies internal and external funding sources, provides information on specific funding entities, executes electronic proposal submission, and advises on budget development/modification, as well as develops and offers training about new sponsor requirements and processes for faculty, technical and administrative staff, and research personnel. This division also processes award notifications, reviews contracts, and facilitates account set up with Research Accounting Services.

Grants Management acts as the university's agent for submitting proposals for grants and contracts for research and other scholarly activities to public agencies (federal, state or local government), private non-profit research organizations, (i.e. American Heart Association) and industry (testing agreements and contracts). As the designated entity for all Temple grant submissions, grants management specialists are responsible for conducting an independent and final review of proposals to ensure that institutional guidelines, sponsor requirements, and applicable regulations are observed. Experienced research administration professionals assist investigators in the preparation and submission of all research proposals including grants, subcontracts on grants, and contract/industry agreements.

All grants must be prepared within Temple’s interactive research portal called Electronic Research Administration ERA@temple.edu. Principal investigators cannot submit applications directly.
The grants management team is responsible for a number of other transactions. These include: accepting notices of awards for research from sponsors; communicating the notice of award to faculty as well as Research Accounting Services; providing training, service, and guidance to faculty and administrative partners around the university; providing support for monitoring to assure alignment with school/college, university and sponsor regulations; preparation of subcontracts derived from grant awards; and conducting the review of award terms and conditions.

Grants management also serves as liaison between the university’s Office of Counsel, university researchers, and outside funding agencies in grant and routine contract negotiations. Grants Management specialists provide ongoing support of the project for the life of the award; this includes communicating project changes to the sponsor, processing award modifications, and collaborating with the Research Accounting Services group.

Questions about the following issues may be directed to your grants and contracts specialist:

- PI Eligibility
- LOI submission processes
- White Paper submission processes
- Institutional limits for responding to a specific call for proposals or grant program
- How to apply for fellowship opportunities
- Grant submission documentation and certification requirements
- Information about how to involve a collaborating institution on a grant
- Information on how to develop a subcontract or consultant agreement for a grant submission
- Requests for waivers related to grant elements that must be approved by the Vice President for Research
Quick Reference Guide for Proposal Development

1 Prepare to Apply

Find funding opportunity
- Register for Pivot/COS: https://pivot.cos.com/login
- Identify an opportunity: http://research.temple.edu/about/resources/funding-portals

Create or update profiles in electronic systems
Update profiles in NIH eRA Commons, NSF Fast lane, NASA NSPIREs, Temple ERA, etc.

Update training
Temple ERA trainings and webinars are offered periodically and system-specific trainings can be provided as needed

2 Develop Proposal

Prepare proposal
- Log-in to Temple ERA: https://era.temple.edu/tu_login/login.asp
- Refer to sponsor’s guidelines for content and formatting.
- Notify department administrator and grants and contracts specialist. Provide a link to RFP or program requirements
- Notify Corporate and Foundation Relations if sponsor/agency is an industrial or foundation entity: http://www.giving.temple.edu/s/705/giving/index.aspx?sid=705&gid=1&pgid=3687

Acquire and complete required forms
- Download the funding opportunity in Temple ERA Proposal Development Module.
- Complete all required elements for the proposal submission.

Questions? Contact your grants and contracts specialist: http://research.temple.edu/grants/contact

3 Acquire Approvals

Complete the Electronic Compliance and Commitments Approval Form (eSPAF)
https://era.temple.edu/tu_login/login.asp

Obtain signatures on eSPAF through approval routing in Temple ERA
eSPAF will electronically route to responsible parties for review and approval: PI, co-investigator, department administrator, department chair or center director, dean’s office, graduate school, grants management office.

Complete all required administrative forms for approval routing along with the eSPAF.
Route to Office of Grants Management (OGM)

Route signed proposal to OGM for review and approval
- OGM provides the final University-authorized signature
- Be sure to allow enough time for review. Complex proposals, proposals involving multiple departments or institutions, certain Requests for Proposals (RFPs) or proposals that involve cost sharing may take longer to review.

Routing Proposals for Electronic Submission
- Complete, final and electronically signed administrative portions of all grant and contract proposal materials must be uploaded in Temple ERA and routed to OGM no less than 5 full business days before the sponsor’s deadline.
- Complete and final scientific narrative portion of all proposals must be uploaded in Temple ERA and routed to OGM no less than 2 full business days before the sponsor’s deadline. Exceptions are based on a request from the Dean to the Vice President for Research.

Submit to Sponsor

Electronic proposals: OGM will submit to sponsor.

Hard copy proposals: OGM will notify the department for pickup; department will mail to sponsor.

For assistance contact your Grants and Contracts Specialist or era@temple.edu.
Starting Your Research Program

Business Services: Award Implementation
http://research.temple.edu/grants/processing-awards

Faculty, as principal investigators, along with their school/college and department research business managers, anchor a broad-based team that interacts with several divisions across the university to coordinate efforts to stand up grants, contracts, clinical agreements, and other sponsored activities. Implementation of all awards happens primarily at the school or college level, or with its designees, in collaboration with the Principal Investigator. They serve as the umbrella for required post award business functions.

The chart shown above illustrates the roles and responsibilities of the administrative units responsible for processing transactions funded by grant awards. The offices involved in business transactions for the university as a whole also handle the transactions paid for by funded grants. Grants Management and Research Accounting Services are available to assist and facilitate transactions that occur throughout the lifecycle of the grant. These divisions have collaborated to develop a Business Management Team (BMT) model to more effectively help faculty navigate the university systems essential for award management.

High level, comprehensive grant development and management services are available to assist, train, advocate and support schools and colleges with limited research administration capacity. Faculty will benefit from consistency and stability over the life of their projects with established points of contact that will employ best practices and strategies to conform pre- and post-management of awards.

What Happens When Your Award Arrives

Receiving a financial award for your research or scholarship is exciting and a wonderful validation of your hard work. OVPR celebrates with you, and will work to set up your award account quickly and efficiently. Typically, awards are issued to the university on behalf of the principal investigator. Temple has designated the Grants Management and Research Accounting divisions with
responsibility for establishing an account for your award in the university’s financial system (Banner), as well as reviewing and approving expenditures. The principal investigator and the department business staff administer and monitor daily operational transactions.

Award set up goes through these steps:

- Receipt of official notice of award to Grants Management with copy to principal investigator;
- Grants Management review of terms and conditions, including any conditional restrictions;
- Internal compliance with all regulatory requirements, such as conflict of interest certification, human subject or animal research protocols;
- Development and execution of any contracts or subcontracts, as necessary;
- Grants Management transmits entire award package to Research Accounting Services, which issues the account number called a FOAPAL;
- Principal investigator and department business staff are notified and work on the project can begin.

**Guidelines and Resources: What You Need To Know**

http://research.temple.edu/key-guidelines-resources

Preparing your research proposal involves knowledge of university procedures, coordination of administrative information and familiarity with agency guidelines, regulations, and application forms. The link above will help you effectively navigate these areas to obtain current and essential information. Here you will find university policies on principal investigator eligibility, as well as a best practices guide and updates for the proposal submission process.

Policy and application guides for major federal agencies such as the National Institutes of Health and the National Science Foundation are also available at this site.

**Funding For Your Project: Funding Portals**

http://research.temple.edu/grants/key-guidelines-resources/funding-your-project

As a Temple researcher, you have a vast array of funding portals to support and augment your research. Temple subscribes to national databases such as:

- PIVOT: http://www.cos.com/#/
- SPIN: https://spin.infoedglobal.com/Authorize/Login
- Foundation Directory Online: https://fconline.foundationcenter.org/search/member-index

Temple provides access to free government sites, including:


Many other funding opportunity portals can be found at the above link.
**Collaboration With Corporate and Foundation Relations**

Research-related activities that involve corporate contracts also come under the purview of Grants Management. The Office of Corporate and Foundation Relations (CFR) is responsible for the solicitation of private sector development funds from corporations, foundations, associations, and individuals. Therefore, all proposals for sponsored projects to private foundations and corporations must be coordinated with and receive approval from both Grants Management and the Office of Corporate and Foundations Relations.

**Points of Contact: Grants Management Staff**

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<th>Name</th>
<th>Title</th>
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**Location**

Grants Management Division Office  
HSC: Health Sciences Center Campus  
Student Faculty Conference Center, Suite 427  
3340 N. Broad Street  
Philadelphia PA 19140  
grantsmanagement@temple.edu
**Research Accounting Services**
http://research.temple.edu/grants/roles-and-responsibilities

**Grants Administration: Post Award Support**
Research Accounting Services (RAS), a division of the Office of the Vice President for Research, is responsible for the financial compliance of awards made to Temple University.

When an award is made to the University, Grants Management forwards the pertinent documents to Research Accounting Services. RAS is responsible for assigning a FOAPAL (account number) in the University’s financial system. The FOAPAL is to be used for life of the award to charge all expenditures which are directly related to the project.

A grant analyst in the RAS office will be assigned to the project to assist both the Principal Investigator and Business Manager in navigating the financial systems and answering expenditure related questions. The analyst is responsible for setting up the FOAPAL and initial budget, as well as monitoring expenditures through the life of the award.

A main function of RAS is to ensure financial compliance with all external regulations and University policies and procedures. All expenses charged to a project must be:

- **Allowable** – those costs that are necessary and reasonable; conform to any limitations or exclusions in the terms of the award; are consistently treated and adequately documented.
- **Allocable** – A cost is allocable if the goods or services are chargeable or assignable in accordance with relative benefits received.
- **Reasonable** – a cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost.

During the course of the award RAS reviews and approves certain financial transactions such as purchase orders, equipment purchases, check requests, travel expenditures, faculty summer payroll, and journal entries. In addition, RAS is responsible for effort reporting (ERS) which is a process mandated by the federal government to verify direct labor charges are accurate, timely and reflect the actual level of work performed.

RAS is responsible for all financial reporting for externally sponsored awards, including invoicing, drawing down of federal funds, fiscal reports as required by the sponsor, final reconciliations of actual charges to the budgeted amount, and the management of grant closeouts.

Other functions of RAS include the negotiation of the Facilities and Administrative (F&A) rate proposal, which involves organizing and preparing documentation on expenditure and space utilization analyses; the Employee Fringe Benefit proposal; calculation of internal service centers; and the A-133 Report. RAS maintains auditable records in support of the direct and indirect charges to grants, contracts and other sponsored agreement.

Additionally, RAS completes the annual National Science Foundation Higher Education Research and Development survey which is the primary source of information on R&D expenditures at U.S. colleges and universities.
Research Accounting Services Post Award Cycle

- Grant Setup & Budget Entry
- Allowability of Cost & Transaction Approval
- Invoicing & Draw Down of Funds
- Financial Reporting & Closeout
Indirect Cost Computation

Scholarly activity incurs two types of costs. Direct costs can be unambiguously linked to a particular project: the costs of hiring a technician, purchasing supplies, traveling to field sites, and so on. Scholars also make use of the libraries, their labs are heated, facilities are depreciated, secretarial assistance may be available in the departmental office, paychecks are issued and accounting reports are filed. The costs of such services are not easy to assign to particular projects, and come under the category of Indirect Costs.

Indirect costs are typically calculated as a fraction of Modified Total Direct Costs. MTDC includes nearly all research expenditures except equipment over $5,000 and large subcontracts over $25,000. That is, suppose your research grant has a direct cost budget of $150,000 of which $50,000 was for equipment. Your MTDC would be $100,000 ($150,000 - $50,000) and your indirect cost would be $56,000 ($100,000 x 56%).

Temple's current rate for externally-funded, organized research, on campus is 56% for FY 16. Temple negotiates all its indirect cost rates with the federal Department of Health and Human Services, the agency designated to negotiate indirect cost recovery rates for most federal grants and contracts. In 2016, Temple supplied federal auditors with information on its actual expenditures for research, instruction, and public service. At the time of this publication, Temple is engaged in negotiations for FY 17 – FY 20.

There are several other negotiated indirect rates, depending on the type of project. They are: instruction (58% on-campus, 26% off-campus) and other sponsored research (public service and other) (41% on-campus, 26% off-campus). These percentages change periodically; check with Research Accounting Services to obtain the current rate.

Off-campus rates cover projects located in facilities not owned by the University. These rates are lower than on-campus rates because the average off-campus investigator will not use campus lab space, heat, lights, and so on. Off-campus rates also cover those awards where more than 50% of the research is being completed off-campus.

What kinds of expenditures are included in the computations? There are six classes of expenditures that go into the computation of an indirect cost rate. They are:

- General administrative costs (Provost's Office, Personnel, Payroll, Accounting; etc.)
- Departmental administrative costs (staff time, Dean's office, faculty time in administration, and fringe benefits on those personnel costs)
- Sponsored programs administration
- Operation and maintenance of physical plant (security, custodial care, heat, building depreciation, et al)
- Library services
- Student services

The first three comprise the category of "administration." Temple's actual administrative rate has been arbitrarily capped by the government at 26%.
Starting Your Research Program

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<td>26.0%</td>
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<td>Libraries</td>
<td>9.3%</td>
<td>2.2%</td>
<td>7.4%</td>
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<tr>
<td>Operation &amp; Maintenance of Plant</td>
<td>22.7%</td>
<td>26.8%</td>
<td>7.6%</td>
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<td><strong>Total Rate</strong></td>
<td><strong>58.0%</strong></td>
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**Effort Reporting**

“Effort” is defined as time spent conducting institutional business and is expressed as a percentage of total time worked. As indicated in 2CFR, Part 220 (formerly known as OMB Circular A-21), on a frequent basis, responsible individuals such as the employee, supervisor, or one with direct knowledge of the effort expended must confirm or certify actual effort devoted (at a minimum) to each federal award. Temple University is an “after-the-fact” institution, where effort reporting is done after the work is performed. Effort reports are issued quarterly for full-time personnel and Medical School and College of Public Health faculty, and each semester for the rest of the faculty.

Temple University utilizes the Maximus Effort Reporting System (ERS) which is a web-based system with electronic routing and e-mail notifications for updating and certifying effort.

Research Accounting Services offers quarterly training sessions for ERS, and also more individual one-on-one training to fit users’ needs and schedules. Quarterly trainings are listed in the HR Training web-site for enrollment. You can request an individual session by emailing ers@temple.edu.
Research Accounting Services Effort Reporting System Cycle

- Payroll Load to ERS; Release of Effort Reports to the Community (RAS)
- Post-Review of Effort Reports (Dept)
- Department Coordinators & SubDC Manage Assignments (Dept)
- Points of Research Services
  - Certification (PI or Employee)
  - Pre-review of Effort Reports (Dept)

Contact: Accounting Staff
Starting Your Research Program

Points of Contact: Research Accounting Services Staff

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Location
Research Accounting Services Division Office
TASB: Temple Administration Services Building
2450 West Hunting Park Avenue (physical address)
1852 N. 10th Street (mailing address)
Philadelphia PA 19122
215-926-2048
ras@temple.edu
The division of Research Compliance aims to ensure that research activities at Temple University are conducted in a responsible and ethical manner, in alignment with the guidelines and regulations of the university, government, and funding agencies. Michael B. Henderson, an attorney in the Office of University Counsel with research experience, oversees the division as Special Assistant for Compliance and Strategic Initiatives. In this new and expanded role, Henderson provides scientific, regulatory, and ethical consultation to faculty, research teams, research regulatory committees, staff, and other partners in coordination with Temple’s Vice President for Research, who serves as Temple’s Institutional Official.

The compliance programs and committees noted below assure that Temple University Investigators achieve and maintain ethical practices and comply with federal, state, and university regulations governing research. Temple’s compliance team strives to provide the best quality service to faculty and research investigators to understand these guidelines and regulations and to implement their programs of research accordingly.

Research Compliance Units:

- Institutional Review Board (IRB)
- Institutional Animal Care and Use Committee (IACUC)
- Institutional Biosafety Committee (IBC)
- University Laboratory Animal Resources (ULAR)
- Environmental Health and Radiation Safety (EHRS)
- Conflict of Interest Program (COI)
- Responsible Conduct of Research/Research Misconduct
- Export Controls.

University practices and policies have been developed to implement our institutional program to assure that all external requirements are followed. Each unit that supports this regulatory framework is described below.
# Research Compliance at Temple University

This chart illustrates eight categories of research compliance and the guidelines that pertain to each as a reference for investigators.

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<th>Institutional Review Board (IRB)</th>
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<th>Environmental Health and Radiation Safety (EHRS)</th>
<th>IP Licensing and Business Development</th>
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<td>NRC/DE</td>
<td>37 CFR 401.14(A) 35 U.S. CODE 203</td>
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## Institutional Review Board (IRB)

http://research.temple.edu/irb

The mission of Temple University’s Human Research Protection Program (HRPP) is to protect the rights, dignity, and welfare of human subjects who participate in the research programs of the Temple system. Specifically, the HRPP has authority over all human subjects research conducted using any property or facility of Temple and under the direction of any employee, student or agent of Temple. This authority extends to Temple University Hospital System employees, who must submit human subjects research to HRPP. The Institutional Review Board (IRB) reviews human subjects research. The activity has to be considered “research” and has to involve “human subjects” for the IRB to review it. The Department of Health and Human Services' (DHHS) definition of research is “a systematic investigation...designed to develop or contribute to generalizable knowledge.”

This definition is broken down as follows:

1. Investigation – a searching inquiry for facts; detailed or careful examination;
2. Systematic – having or involving a system, method, or plan;
3. Knowledge – truths, facts, information;
4. Generalizable – widely applicable.

Human subjects research at Temple is reviewed via three methods: a convened IRB; expedited review; or exempt review. Please note that the determination for exemption is made by the IRB Committee based on the HRPP, not the investigator, and therefore must always be submitted formally.
Quick and Easy: Eight Steps to the IRB Process

1 Determine if the Study Requires IRB Review

- The Human Research Determination Worksheet can be used to help determine if a study meets the regulatory definition of Human Subjects Research.
- For questions about whether an activity is Human Research, submit a 2-3 paragraph synopsis to: irb@temple.edu.

2 Completing IRB educational Requirements at citiprogram.org:

- The “Biomedical Research Investigators” OR “Social & Behavioral Research Investigators” course, depending on the proposed research
- The “Practice Runs Training” course

Instructions for how to create an account and complete the required courses can be found in this Word document.

3 Prepare for IRB Submission

Investigators developing a new research project will need to develop a protocol and other study documents as appropriate (e.g. consent, recruitment materials, data collection instruments, etc.). Protocol and consent templates are located at the IRB website’s Quick Links page.

4 Submission to the IRB

Submit to the IRB via ERA by logging on with your TU Accessnet username and password and following the prompts.

- IRB submission is completed via the “My Human Subjects” tab within ERA. Instructions can be found on the Temples Research’s Training Tutorials & Documentation page.
- The application form for Initial Review is an eform, and it’s located within ERA. It must be completed and consistent with all other study documents for the IRB to review the proposal.

5 IRB Review

Once the IRB receives the application for human subjects research, the IRB determines which of the following 4 categories the proposal belongs to: Not Human Subjects Research, research deemed Exempt from continuing review, Expedited review (review type does not mean speed of review), and convened Full Board IRB review.
6 Modifications Required to Secure Approval

- The IRB occasionally requires additional modifications in order to approve a protocol. This is not the same as a Modification.
- Researchers are required to submit requested modifications to the IRB within 90 days of receiving notice.
- The response process is described in this pdf, located on the IRB website's “Training Tutorials & Documentation.”

7 Post Approval Submissions

- After initial IRB approval, researchers are required to submit the following (when applicable): Modifications, Continuing Reviews, Reportable New Information, and Closures.
- Modifications (changes to the protocol or other study documents and forms) cannot be implemented prior to IRB approval.
- Submit Continuing Reviews at least annually.
- Report information meeting the criteria of Reportable New Information within 5 days. See HRP 801- Prompt Reporting Requirements at research.temple.edu/irb under “IRB Forms & Standard Operating Procedures.”

8 Investigator Obligations

The Principal Investigator (PI) is responsible for assuring compliance with applicable IRB policies and procedures, DHHS regulations, FDA regulations, and oversight of the study. The PI will often delegate duties to members of the research team, but the PI retains the ultimate responsibility for the conduct of the study (this is true even if it is student research). See HRP 800 – Investigator Obligations on the IRB website (research.temple.edu/irb) under “IRB Forms & Standard Operating Procedures.”

Reference links:
5. https://www.temple.edu/research/researchadmin/era/era_login.asp
## Points of Contact: IRB Staff and Chairpersons

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## Location

**Institutional Review Board Office**

**HSC: Health Sciences Center Campus**
Student Faculty Conference Center, Suite 304
3340 N. Broad Street Philadelphia PA 19140
irb@temple.edu
Temple University’s Institutional Animal Care and Use Committee (IACUC) regulates and monitors all university research and teaching involving animal subjects. This committee functions to ensure compliance with all federal and state regulations on the humane care and use of animals in teaching and research, including the provisions of the Animal Welfare Act and Animal Welfare Regulations and the PHS Policy on Humane Care and Use of Laboratory Animals.

Temple’s IACUC is the research community’s resource for expert guidance on conducting animal use procedures with the highest level of scientific and ethical principles, and assistance with the protocol review process. IACUC membership includes Temple faculty and staff, as well as non-Temple community members who represent the public interest. The committee also includes a scientist who uses animals in research, a non-scientist, and veterinarians whose responsibility is to ensure that the animal care and use program at Temple University meets the federal regulations and standards.

IACUC administrative staff assist with processing protocol submissions, communication between the committee and the investigators, review of training, and conducting pre-reviews and post-approval monitoring. If you intend to conduct research that involves animals, you should contact the IACUC office for information. If your study involves use of recombinant DNA or hazardous drugs/chemicals, plan ahead to submit for Institutional Biosafety Committee (IBC) approval before your IACUC submission.

The IACUC meets the first Friday of every month, unless there is a conflict with holidays. In order to receive full committee review, protocol submission must be sent to the IACUC two weeks before each meeting. Specific dates of meetings and deadlines can be found on the IACUC website.

Role of Temple’s IACUC

- Review protocols that involve the use of live animals;
- Review entire animal care program every six months;
- Inspect all animal facilities and lab areas every six months;
- Address animal welfare concerns; and
- Report instances of non-compliance and recommend corrective action.

Key Resources – These and other policies, guidelines and operating procedures can be found on the IACUC website.

1. AAALACi – Association for Assessment and Accreditation of Laboratory Animal Care International - http://www.aaalac.org/
2. AALAS – American Association for Animal Laboratory Science - https://www.aalas.org/
6. Temple’s Research Compliance IACUC Website http://research.temple.edu/iacuc
7. Temple’s University Laboratory Animal Resources Website - https://www.temple.edu/research/regaffairs/ular/ular_login.asp

**Points of Contact: IACUC Staff and Chairperson**

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**Location**

**Institutional Animal Care and Use Committee Office**

**HSC: Health Sciences Center Campus**

Student Faculty Conference Center, Suite 304
3340 North Broad Street Philadelphia PA 19140
iacuc@temple.edu

**Institutional Biosafety Committee (IBC)**

http://research.temple.edu/research-compliance/welcome-institutional-biosafety

The Institutional Biosafety Committee (IBC) facilitates review of research involving recombinant DNA (rDNA), synthetic nucleic acid molecules, infectious agents and other hazardous biological agents conducted at, or sponsored by, Temple University. As Temple receives funding from the National Institutes of Health (NIH) for rDNA/synthetic nucleic acid research, the university is required to establish and register an Institutional Biosafety Committee (IBC) with the NIH Office of Biotechnology Activities (OBA) in assurance with the NIH Guidelines For Research involving rDNA/synthetic nucleic acid and meet other applicable regulations and standards.
Committee Structure and Composition
A broad array of available research and regulatory expertise is important for the IBC. The National Institutes of Health (NIH) requires that the IBC have at least five members who collectively have the experience, expertise, and capability needed to assess the breadth and safety of recombinant DNA and synthetic nucleic acid molecules, as well as other biological materials, agents, and organisms as needed to identify any potential risks to workers, public health, or the environment.

Meeting Schedule
The IBC meets the third Tuesday of every month. Protocol renewals and amendments are reviewed regularly throughout the year, as well. Protocol submissions must be submitted to the IBC two weeks before the meeting. Please visit our website for more detailed information on the IBC review process, as well as IBC registration and training programs.

How to Obtain IBC Approval
- Send the IBC registration form and associated documents to ibc@temple.edu;
- Expect a confirmation of receipt;
- Provide additional materials if requested;
- IBC review decision emailed within 48 hours of monthly meeting.

Post Review Process
- Approved – no changes necessary;
- Conditional Approval – requires revision, but not another IBC meeting review; or
- Deferred – must be resubmitted for the next IBC meeting for another full review.

To determine if your research needs IBC Registration:
- Contact the IBC office – ibc@temple.edu – 215-707-9741;
- Contact the Senior Biosafety Officer – ehrs@temple.edu; or
- Complete the Environmental Health and Radiation Safety (EHRS) New Faculty

Get Started
Institutional Biosafety Forms and Standard Operating Procedures (SOPs)
http://research.temple.edu/institutional-biosafety-forms-standard-operating-procedures

Biosafety Resources
http://research.temple.edu/biosafety-resources
Points of Contact: IBC Staff and Chairperson

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Location

Institutional Biosafety Committee Office
HSC: Health Sciences Center Campus
Student Faculty Conference Center, Suite 304
3340 N. Broad St. Philadelphia, PA 19140
ibc@temple.edu

University Laboratory and Animal Resources (ULAR)
https://research.temple.edu/research-compliance/university-laboratory-animal-resources

University Laboratory Animal Resources (ULAR) consists of the Central Animal Facility (CAF) at the Health Sciences Center (HSC) and the Main Campus (MC) animal facilities. ULAR is under the Organizational direction of the University Veterinarian, which is under the Institutional direction of the Vice President for Research (VPR). The ULAR serves the collective needs of the HSC and MC for supporting research, teaching and testing programs that employ the use of animals. Temple’s Animal Care and Use Program Assurance is accountable by the VPR through the IACUC. The IACUC is responsible for evaluating and overseeing the animal care and use programs of the University. The VPR is responsible for ensuring that the decisions of the University Veterinarian and IACUC are properly enforced. At the HSC and MC the Attending Veterinarians (AVs) direct the Veterinary Care Program and have managerial oversight for all laboratory animals to ensure compliance with federal regulations and university policies regarding the use of animals in biomedical research, testing and teaching.

ULAR Responsibilities

- Daily oversight, husbandry, and veterinary care for all laboratory animals;
- Maintenance of all associated animal facilities and related equipment;
- Ordering, receiving, invoicing, and transportation of animals to and from commercial vendors and associated institutions;
- Maintaining the sentinel program for animal health profiles and treatment regimens;
• Record-keeping for controlled drugs and all USDA-regulated animals, including associate research procedures and subsequent archiving;
• Maintaining a current armamentarium of drugs, supplies and operating equipment;
• Training and instructional techniques for research personnel associated with approved protocols and animal research;
• Continual operation of computer database system of all related animals on approved protocols;
• Daily operation of the administrative offices to include, day-by-day animal census, monthly billing procedures and ongoing personnel and staff service.

Standard Operating Procedures and Policies
https://www.temple.edu/research/regaffairs/ular/ular_sop.asp

Here you will find ULAR guidance documents applicable across all central animal facilities at both the Main Campus and Health Sciences Center.

eSirius
https://www.temple.edu/research/regaffairs/ular/ular_esirius.asp

eSirius, Temple's on-line animal ordering system, offers these key services for investigators:

• Animal procurement – manages the complete animal workflow including order placement, receiving, vendor reconciliations, and cage card printing;
• Animal census – collects, reconciles, and reports census data using bar code and RFID data capture;
• RFID animal inventory – utilizes the latest RFID technology for collecting animal census data making census taking much faster and more frequent census calculations feasible;
• Services – sets up charges for individual services or service groups for electronic invoicing of animal care days, animal purchases, and invoicing.

Investigators will access the eSirius animal ordering system through an electronic portal using their Temple credentials.
### Points of Contact: ULAR

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</tbody>
</table>

### Locations

**ULAR**

**HSC:** Health Sciences Center Campus
Central Animal Facility – Medical Education and Research Building
3500 N. Broad St. Philadelphia, PA 19140
215-707-3173

**MC:** Main Campus
Biology Animal Facilities – Biological Life Science (BLS) Building
1900 N. 12th Street
Philadelphia, PA 19122
215-204-8856
**Environmental Health and Radiation Safety Services (EHRS)**
http://www.temple.edu/ehrs/

Scientific research often involves close work with hazardous chemicals, radioactive materials, radiation-producing equipment, chemicals, and other biological substances. Temple’s Environmental Health and Radiation Safety Department (EHRS) ensures the safe use of these materials at the university, Temple Hospital and affiliated institutions. EHRS identifies safety problems and initiates, recommends, or provides corrective actions. It also verifies implementation of corrective action, and ensures compliance with regulations and University policies for the use of hazardous substances.

EHRS has developed an informational form for new faculty as a means of familiarizing them with the university’s policies and procedures, as well as its training requirements. Completing this form will help faculty prevent delays when seeking approval for research applications. The form can be accessed here: http://www.temple.edu/ehrs/safety/lab-safety/documents/newfacultyinformation.pdf.

**Key EHRS Units**

**Safety**: The EHRS website covers specific safety areas with applicable policies and procedures, guides, forms, and additional resources. These sections are continuously updated to reflect current federal, state, and local regulations.

- Art school
- Biological
- Chemical
- Environmental
- Healthcare
- Lab
- Laser
- Nanotechnology
- Occupational
- Radiation

**Waste Management**: This section includes information on the different types and categories of waste materials.

- Chemical waste
- Radiation waste
- Waste management program guide
- Waste disposal guides
- Waste minimization guides
- Relevant handbook policies
Training: EHRS has many training courses that can be taken online through Blackboard. Classroom training sessions also are available, and are held on the Health Sciences Center Campus in the EHRS Offices, located in Room B-49 in Pharmacy Building, 3307 N. Broad Street. The complete training catalog can be found here: http://www.temple.edu/ehrs/training/

Handbook: A comprehensive EHRS Handbook is available for downloading and includes these categories (http://www.temple.edu/ehrs/handbook/):

- General requirements;
- Waste Management Training;
- Radiation safety;
- Chemical safety;
- Biological safety;
- Fire Safety;
- Emergency management;
- Respiratory protection;
- Laser safety.

Related Resources: Information relating to regulatory agencies, personal protective equipment information, and University health and safety resources can be found here:
http://www.temple.edu/ehrs/related-resources/

Required Forms: The EHRS website also has these forms available for downloading:

- Radiation Worker Registration;
- Assurance on Hazardous Procedures;
- Shipping of Dangerous Goods;
- Lab Vacancy;
- Instrument Decontamination;
- Chemical Hygiene Plan;

Location
Environmental Health and Radiation Safety Services Office
HSC: Health Sciences Center Campus
3307 N. Broad Street
Philadelphia PA 19140
215-707-2520
ehrs@temple.edu
Conflict of Interest Program
http://research.temple.edu/research-compliance/conflict-interest

Research at Temple University is wide-ranging, involving work with other educational institutions, businesses, and corporate industry collaborators. Research ideas advance the scientific field and often are used in the development of products and applications that may directly benefit society at large. Sometimes, these discoveries result in financial gain for the researcher and the university, which can lead to further research and development incentives. These activities, while encouraged by the university and the federal government, must be monitored and managed so that any potential conflict with the various interests of investigators (researcher, teacher, advisor, employee, business owner), are eliminated.

Temple University requires faculty and other research investigators to avoid any conflict, or appearance of conflict, between their personal interests and the interests of the university when dealing with any organization or individual whose objectives or interests may be adverse to university interests. Financial or management interests in an outside company or other entity as it relates to employment at the university are expected to be disclosed.

Temple maintains a comprehensive Conflict of Interest (COI) Program governed by these policies:

- Conflict of Interest - Faculty;
- Financial Conflict of Interest In Research;
- Conflict of Interest - All Employees;
- Conflict Of Commitment and Interest - Lewis Katz School of Medicine;
- Gifts And Conflict of Interest - All Employees;
- TAUP Collective Bargaining Agreement - (Article 20);
- Temple University Faculty Handbook (Article VIII).

Federal regulations require key personnel on all federal grant applications to disclose financial interests and have an approved management plan for identified conflicts that have the potential to impact the implementation of funded grant awards. Temple University also requires employees to disclose financial interests as a condition of employment.

Examples of conflict include situations such as the following:

- an investigator holds an executive position or a position of managerial control in a business engaged in research directly related to the investigator's institutional responsibilities;
- an investigator receives research funds from a business in which the investigator or family member is a member of the board of directors or an advisory board; or
- favorable administrative action is taken with respect to any sponsored activity in which a University official or family member has a financial interest in the sponsor or donor.
FCOI Disclosures for PHS and NSF Proposals and Awards

Under the Public Health Service (PHS) Financial Conflict of Interest (FCOI) regulation effective 8/24/12, FCOI disclosures are required to be completed and reviewed annually for all PHS, including NIH, funded research. Here is a link to all the sponsor agencies currently following the PHS regulation: http://sites.nationalacademies.org/PGA/fdp/PAG_070596.

The National Institutes of Health (NIH) adopted a new financial conflict of interest (FCOI) regulation effective 08/24/12 http://grants.nih.gov/grants/policy/coi/. This regulation promotes objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct, and reporting of research funded under NIH grants or cooperative agreements will be free from bias resulting from investigator financial conflicts of interest.

Temple University’s COI program also covers proposals submitted to and awards received from the National Science Foundation (NSF). The NSF’s current Proposal and Award Policies and Procedures Guide (NSF-16-1, effective January 2016), https://www.nsf.gov/pubs/policydocs/pappguide/nsf16001/nsf16_1.pdf states that an institution’s Authorized Organizational Representative (AOR) is required to complete certifications stating that the organization has implemented and is enforcing a written policy on conflicts of interest (COI) consistent with the provisions of the NSF’s Conflict of Interest policy; that to the best of his/her knowledge, all financial disclosures required by the COI policy were made; and that conflicts of interest, if any, were, or prior to the organization’s expenditure of any funds under the award, will be, satisfactorily managed, reduced or eliminated in accordance with the organization’s COI policy.

At Temple, investigators must have a conflict of interest disclosure on file before any grant proposal can be submitted. The disclosure is required to be certified on an annual basis and is valid for 12 months, unless there is a material change in any circumstance; investigators must report changes within 30 days. Investigators do not have to re-file for each grant submission during that 12-month period.

The COI website is your source for current policies and procedures, training opportunities and other assistance regarding university and agency regulations on financial conflict of interest. It also provides step-by-step instructions on How To Access COI Training In Blackboard and How To Create Or Update Your COI Disclosure In Temple’s ERA System – the university’s electronic research administration system.

### Points of Contact: Temple University Conflict of Interest Program

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</tbody>
</table>
Research ethics and compliance are an important component of the research enterprise. The university's focus is to facilitate best practices for integrating compliance information with effective grants management, while providing proper stewardship to safeguard investments in research.

Research, scholarship, professional, and creative activities conducted at Temple University are to be done according to the highest ethical and professional standards. Temple University strives to promote a healthy research environment, while establishing policies and procedures that effectively address evidence of misconduct. Through its Policy On Misconduct in Research and Creative Work, the university is committed to generating and disseminating knowledge and to protecting traditional principles of academic freedom.

Temple University further recognizes the importance of protecting the lives and rights of all who are involved in those processes and of maintaining a relationship of trust within the broader academic, research, and social communities. By this policy, Temple University requires that each person who engage in or supervises research or creative work be responsible for conducting these activities in an ethical manner.

All faculty must receive training in the integrity procedures. Misconduct may include fabrication, plagiarism, falsification, and failure to comply with the proper conduct of research. After the review of a charge made in good faith, the University’s Integrity Officer, Dr. Michele Masucci, Vice President for Research, will refer the situation to an inquiry committee to determine possible misconduct. If the committee considers there to be probable cause, then it is referred to an investigation committee. If the committee concurs that there is misconduct, the case will then be referred to the President for possible sanction.

**National Institutes of Health (NIH) Responsible Conduct of Research Requirement**

The NIH requires that all trainees, fellows, participants, and scholars who receive support through any NIH training, career development award (individual or institutional), research education grants, and dissertation research grant must receive instruction in responsible conduct of research.

**National Science Foundation Responsible Conduct of Research Requirement**

The NSF requires that any undergraduate or graduate student, and postdoctoral researchers supported by NSF to conduct research must undergo RCR training. Exemptions are for conference, symposium, workshop or travel proposals.

Beyond these regulations, RCR training is strongly encouraged for all faculty, staff, and students engaged in scholarly work, regardless of funding source or field of study.


Export Controls

Federal laws restricting exports of goods and technology are currently implemented by the U.S. Department of Commerce through its Export Administration Regulations (EAR—trade protection), the U.S. Department of State through its International Traffic in Arms Regulations (ITAR—national security), and the U.S. Department of Treasury through its Office of Foreign Assets Control (OFAC—trade embargoes).

Export control laws and regulations have several purposes: to restrict exports of goods and technology that could contribute to the military potential of U.S. international adversaries; to prevent proliferation of weapons of mass destruction; to advance U.S. foreign policy goals; and to protect the U.S. economy and promote trade goals. Attention to export controls has increased due to recent heightened concerns about national and homeland security as well as the need to prevent proliferation of weapons of mass destruction and terrorism and leaks of technology to U.S. economic competitors.

Export controls present unique challenges to universities and colleges because they require balancing concerns about national security and U.S. economic vitality with traditional concepts of unrestricted academic freedom and publication and dissemination of research findings and results. University researchers and administrators need to be aware that these laws may apply to research, whether sponsored or not.

The EAR and ITAR apply to the transfer of specific physical items and information and the provision of specific services to persons and entities outside the United States (“exports”) and to the disclosure of specific information and the provision of specific types of services to foreign nationals inside the United States (“deemed exports”).

Investigators at Temple may engage in research that may involve the development or use of products, goods, hardware, software or materials or technology that may be subject to U.S. export control laws. The University is committed to full compliance with all applicable export control laws and regulations.

In general, export control regulations apply to:

- the transfer or “export” of specified materials, information, items or technology outside the U.S.;
- the disclosure of certain information to certain foreign nationals inside the U.S. (“deemed exports”);
- the training or offering of services involving controlled equipment or information to foreign nationals;
- the design or production of items related to defense services; and
- transactions with certain foreign countries or individuals who are on embargo or restricted lists.

It is imperative that research faculty and staff understand how and when these regulations may apply to their activities when certain compliance obligations are in effect and to what extent the Offices of Grants Management, Technology Commercialization and Business Development, and Temple’s Office of University Counsel can provide assistance when needed.
Innovation

Technology Commercialization and Business Development
http://research.temple.edu/innovation

Overview

Temple’s Office of Technology Commercialization and Business Development (TCBD) provides a “one-stop shop” to help faculty, staff, and students evaluate and protect their research and intellectual property, as well as translate work into commercial opportunities. The TCBD group identifies, protects, and commercializes inventions created by Temple faculty, staff, and students. New discoveries are submitted to the office by completing an Invention Disclosure Form that is evaluated to determine the probability for commercial success.

The office works with the university’s external patent counsel to determine the most appropriate intellectual property protection (e.g. patents and copyrights) and commercialization strategy for inventions Temple elects to pursue. Various marketing strategies are employed to identify companies and entrepreneurs to further develop and bring Temple’s discoveries to the marketplace.

Core Goals To Support Mission “CREATE”

• Communicate technology development and commercialization benefits for the Temple community;
• Recognize innovators for their valuable contributions to society;
• Educate Temple faculty, staff, and students regarding the technology development and commercialization process;
• Attract funding to validate technology and enable its commercialization;
• Transfer technology through traditional licensing and startup companies;
• Energize the local, state, and national economy by introducing new products and businesses into the marketplace.

The business development and commercialization program of the university plays a critical role in the continued advancement of Temple’s research enterprise and situates the faculty and university as a nexus of discovery, education, translational research and service dedicated to the betterment of society. During the past five years, there were nearly 400 invention disclosures, five license option deals, and 15 start-up companies formed. Temple has generated $16.7 million in license revenues throughout this period.

Commercialization Process

The TCBD fosters internal connections and external partnerships through an embedded commercialization goal. This leads to a diversification of research outcomes that includes both basic science accomplishments and applied research resulting in protecting more intellectual property, developing spin-off company opportunities, engaging in nationally significant research discourse, and developing state-of-the-art replicable programs that can be adapted broadly in the U.S. and beyond.
Temple researchers drive the creation of new intellectual property through research funded by federal, state, and private organizations. The steps shown below will help faculty, staff, and students understand how the invention disclosure, evaluation, protection and commercialization process works.

**Step 1: Submit an Invention Disclosure**
As the first step towards a possible patent application or other appropriate form of intellectual property protection, Invention Disclosures must be made to the Office of Technology Commercialization and Business Development. Disclosures should be made as early and as completely and accurately as possible (although it may be amended at any time later); the benefits of early, complete and accurate disclosure are stronger patent protection.

*Important Note:* Please contact our office before submitting any invention-related manuscripts for publication, making oral presentations, or disclosing an invention to companies (or other third parties); any disclosure may seriously jeopardize patentability if not handled properly.

Please submit your invention using the following Invention Disclosure Form.
http://research.temple.edu/sites/research/files/documents/ID_Form_6.10.16.doc

**Step 2: Invention Disclosure Evaluation**
Your invention disclosure will be assigned to a Technology Commercialization Manager to assess the invention's commercial potential. Within 3-4 weeks after submission, a Technology Commercialization Manager will follow up to discuss their analysis with you. During this process, outside consultants, experts, and patent counsel are often retained to assist with this evaluation.

**Step 3: Intellectual Property Protection**
Temple retains outside legal counsel to issue an opinion regarding intellectual property protection. If favorable, Temple's patent counsel drafts, files and manages Temple's patents and copyrights covering the invention.

**Step 4: Commercialization Process**
After Temple decides to pursue an invention, the Office of Technology Commercialization and Business Development begins the commercialization process by determining the appropriate path to market. The office seeks to license Temple's intellectual property rights to an established or startup company in exchange for royalties, licensing fees and other forms of compensation.

Startup companies are an important vehicle for advancing technologies along the commercialization pathway. With assistance from Temple Ventures—Powered by Temple Ventures and several regional programs, the office works with inventors to further develop inventions and facilitate the creation of new startup companies for this purpose.

Regional commercialization programs include the University City Science Center, BioStrategy Partners, Ben Franklin Technology Partners of Southeastern Pennsylvania, and BioAdvance.
**Partnership Process**

The TCBD team partners with faculty early in the research process to develop patents and intellectual property. It is charged with managing, marketing and licensing university-owned inventions created by Temple faculty, staff, and students. The office oversees identification and vetting of technologies with commercial potential, as well as assists inventors with strategies for business partnerships and new venture creation. As new intellectual property is developed, TCBD serves as the first intake point to establish a formal record of invention using the Temple Invention Disclosure Process. Invention disclosures are then evaluated to identify opportunities with the highest probability for commercial success.

**Collaborating with Temple**

The Office of Technology Commercialization and Business Development actively seeks partnerships with companies to commercialize Temple-owned inventions. All confidentiality, material transfer, and industry sponsored research agreements are managed by a contract team dedicated to advance research collaborations. Rights to commercialize an invention are negotiated by technology commercialization managers and granted through a royalty-bearing licensing agreement.

**Available Technologies**

Companies interested in exploring Temple’s licensing opportunities can visit the iBridge Network or preferably contact us to identify relevant opportunities. You can view Temple licensing opportunities through the iBridge Network, which provides a gateway for companies and entrepreneurs seeking university licensing opportunities. Temple University’s participation in the iBridge Network is supported by Pennsylvania’s Ben Franklin Technology Partners.

**Agreement Structures**

Temple University actively advances research in partnership with companies seeking to commercialize the results. A new business development and contracting team has been established to serve as a central interface for industry relationships. Key agreements are included below:

**Confidentiality:** Temple University enters into hundreds of confidentiality agreements per year to protect the confidentiality of information that is exchanged for the purpose of exploring collaborations, including technology transfer arrangements and research collaborations.

**Commercialization:** Companies seeking to commercialize Temple technologies enter into an option or license agreement that offers companies the rights to make, use and sell Temple inventions in exchange for royalties, licensee fees and other compensation that is negotiated on a case-by-case basis.

**Research Collaborations:** Companies interested in collaborating with Temple to advance company products and/or Temple intellectual property enter into our industry Sponsored Research Agreement (SRA). SRAs protect the interests of both parties, including the management of intellectual property (IP), confidentiality and publication.
Material Transfers: Receiving or transferring research materials between academic institutions, companies and other organizations requires a Material Transfer Agreement (MTA). An MTA defines the approved use of the materials and any related terms such as material handling and distribution, intellectual property rights and publication.

Temple discoveries in the marketplace include sustained drug delivery technology for nutraceuticals and pharmaceuticals, diagnostic tests for chronic fatigue syndrome, instruments for the diagnosis and treatment of tooth decay, and pheromone attractant technology for pest control. Discoveries under development include phage technology to treat antibiotic-resistant bacteria, next-generation disinfectant technology, biomarkers for the early detection of traumatic brain injury, diagnostics for chronic obstructive pulmonary disorder (COPD), and therapeutics for HIV, cancer, arthritis and inflammatory bowel disease. Through continued advancement of the university's research enterprise, Temple is ensuring its place as a nexus of discovery, education, translational research and service, dedicated to improving quality of life and expanding our world for the benefit of society.

Corporate Partnership Funding Programs

Research and Development
Temple University actively advances research in partnership with companies seeking to commercialize the results. A new business development and contracting team has been established to serve as a central interface for industry funding relationships. Standard funding agreements protect the interests of both parties, including the management of intellectual property (IP), confidentiality and publication. Under a sponsored research collaboration, IP ownership follows inventorship for patents and authorship for software. To protect the company’s competitive position and enable it to bring IP to market, companies are granted an exclusive right to negotiate an exclusive license for any Temple-owned IP funded by the company. Publication delay periods are incorporated to protect confidential information and secure IP protection.

Technology Development
The University City Science Center’s QED Program is a multi-institutional proof-of-concept program that provides $200,000 in proof-of-concept funding and business development support for academic researchers developing early-stage life science and healthcare IT technologies with high commercial potential. Industry representatives serve as mentors to guide projects to a commercially relevant milestone.

BioStrategy Partners (BioSP) is a nonprofit commercialization consortium comprised of Temple University, Penn State University, Thomas Jefferson University, The Wistar Institute, and the Lankenau Institute for Medical Research. BioSP’s “Pharma Germinator” program aligns the technology interests of Janssen Research and Development with potential solutions offered by the consortium members. Selected projects have access to $300K in annual funding with an opportunity to attract follow-on funding from Janssen.
Temple’s $2.5M Technology Development Program serves as a matching fund for external proof-of-concept programs, including QED and BioSP, and actively engages industry by matching investments directed to the development of Temple University inventions. Projects are eligible to receive up to $100K from Temple to de-risk technology with an equal cash match from an industry partner to achieve a critical milestone that will position the technology to attract follow-on funding.

New Ventures Aligned With Strategic Partners
In addition to more than 35 active licenses with companies to commercialize Temple discoveries, Temple recently launched two startup accelerators designed to help faculty, staff, and students launch new ventures to bring their ideas to market, many in collaboration with industry.

Blackstone LaunchPad Philadelphia is a co-curricular program that is open to all 41,000 students at Philadelphia and Temple Universities, regardless of academic major. Through the regional partnership, Philadelphia University and Temple University students will have access to an expanded universe of resources to help them launch their ventures, strengthening the local economy.

Temple University and Ben Franklin Technology Partners of Southeastern Pennsylvania launched Temple Ventures—Powered by Ben Franklin, a $1 million startup accelerator designed to assist startup companies advancing Temple-created technologies. Companies can apply for business formation, financing, and incubation resources necessary to advance Temple discoveries.

Policy and Global Affairs
In partnership with Comcast-NBCUniversal, Temple University joins government, academia and business leaders to discuss research issues of national importance through the Government University Industry Research Roundtable (GUIRR) of The National Academies of Sciences, Engineering, and Medicine.

TCBD Resources and Services

Contracts and Agreements – including Material Transfer Agreements (MTA), the transfer of biologic materials between academic institutions.
http://research.temple.edu/innovation/contracts-and-agreements

Temple University Invention and Patent Policy – invention rights covered by the policy include both intellectual property rights (such as patent rights) as well as tangible property rights (such as biological materials). Net Income for each invention distribution can be found here.
http://research.temple.edu/innovation/policies-guidelines
Starting Your Research Program

Temple University Invention and Patent Committee – Appointed by Temple University’s President, the IPC is charged with reviewing intellectual property policy matters including ownership, royalty distribution and conflicts of interest. Visit Section 6 of the policy for further information.  

**Temple Ventures**  
http://research.temple.edu/technology-innovation/temple-ventures

Temple University and Ben Franklin Technology Partners of Southeastern Pennsylvania have developed a new joint initiative: Temple Ventures – Powered by Ben Franklin. TU Ventures is a $1 million start-up accelerator designed to assist start-up companies advancing Temple-created technologies. This is an innovation partnership designed to help create independent start-up ventures in the greater Philadelphia area from Temple-based technologies. Temple and Ben Franklin are investing both capital and consulting resources to develop great ideas into promising businesses.

**Temple Ventures features three main components:**

1. A joint Temple/Ben Franklin Seed Fund for prototype and startup funding;
2. New business launch resources to support the formation of the new Temple-created technology ventures;
3. Incubation services to provide workspace, professional resources, and management and commercialization guidance.

Temple will identify potential technologies well-suited for seed capital and strategic development from its various departments and labs. Ben Franklin will utilize its capital, counsel, and connections to help develop commercialization strategies from those technologies, and provide critical access to the region’s broader technology investment community. Together, Temple and Ben Franklin will invest in those companies from the combined seed fund. $1 million has been committed for the program’s pilot, with intent for an additional $1 million per year for the next five years.

**Temple Blackstone LaunchPad**  
http://research.temple.edu/technology-innovation/blackstone-launchpad

Temple University’s Blackstone LaunchPad is a campus-based entrepreneurship program, developed to support and mentor students and alumni – regardless of major, experience or discipline. The program is designed to help drive economic development in communities around partner universities increasing the likelihood that students remain and develop their ideas with the region and prepare students to enter the modern workforce with a flexible, entrepreneurial mindset. The overarching goal is to introduce students to entrepreneurship, help them develop entrepreneurial skills and enable them to independently achieve success in any venture they pursue.
TU Blackstone LaunchPad Program offers:

- Free and confidential mentorship for individuals or startups at any stage in any industry;
- A forum to share knowledge and best practices, post jobs, and find team members across the global network;
- Great resources and exclusive deals to help you get started from software to online courses;
- Use of specialized applications and online tools to help get your startup off the ground and up to scale;
- Mentors who will take your idea and help you flesh out initial concepts and understand the roadmap to execute it;
- Strategies to overcome obstacles as you look to grow and scale your business;
- Opportunities to participate in events, join the online community and sign up for free mentorship.
### Points of Contact: Office of Technology Commercialization and Business Development

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</tbody>
</table>

### Locations

**Technology Commercialization and Business Development Division Offices**

**MC:** Main Campus  
Conwell Hall, Suite 401; and  
Carnell Hall, 10th Floor  
1801 N. Broad Street  
Philadelphia PA 19122

**HSC:** Health Sciences Campus  
Medical Education and Research Building, Room 1955  
3500 N. Broad Street  
Philadelphia PA 19140
Electronic Research Administration (ERA) is Temple University’s web-based system that supports faculty to manage transactions related to research, compliance, and innovation. These include: research proposal preparation and submission, research compliance protocol development and tracking, clinical trials management, ordering animals, disclosing financial interests to the university, and obtaining required approvals for research-related processes from departments, colleges, and the university.

ERA uses an integrated and automated system to assist research administration activities with both pre- and post-award processes that involve the administrative and regulatory aspects of grants, contracts and clinical trials. The ERA system can be easily accessed with Temple University AccessNet credentials. Technical assistance related to all of the uses of the system is available through the ERA team.

Benefits for Researchers
- Secure access 24/7 for authorized users;
- Web environment that can be accessed from any computer compatible with Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari;
- Extensive documentation – both video tutorials and PDFs; Experienced technical support for proposal and protocol submissions;
- Investigator’s entire research portfolio is present in one location – proposals, contracts, sub-awards, protocols, and invention and COI disclosures.

ERA Services

Pre-award
- Identification of funding opportunities
- SPIN https://spin.infoedglobal.com/Home/Search;
- Institutional and faculty profiles;
- Proposal development;
- Budget development;
- Electronic approval and routing;
- Cost sharing information;
- Sub-contract tracking;

Protocol Management
- Regulatory protocol development and approvals for IRB, IACUC, IBC, and Radiation Safety;
- Electronic submissions of protocols;
- Electronic notification of protocol status;
- Animal purchasing and facilities management;
Clinical Trials Management
- Budget preparation;
- Integration and use of approved University costs/charges;
- Patient/procedures scheduling;
- Sponsor billing;
- Financial analysis;

Conflict of Interest Disclosures
- My Conflict of Interests module used to prepare and submit conflict of interest disclosures;
- Electronic approval routing for review and certification decision;
- Certifications/management plans uploaded as part of the investigator's COI record;
- COI disclosures linked to relevant proposals for audit purposes;

Proposal Submission To Sponsors
- Electronic system-to-system submission for research proposals;
- Non system-to-system proposal record established when a sponsor's submission site must be used;

Electronic Notification Of Award Notices
- Automated notification to investigator and cognizant business administrator;
- Automated project set-up;

Post Award Management
- Project financial management;
- Sponsor invoicing;
- Project closeout and reporting;

Reporting
- Timely and accurate reporting at all phases of the project/protocol lifecycle;
- Ability to link sponsored project data with other University systems of record.

TRAININGS AND FAQs

Training documentation has been developed to help investigators successfully build their proposals and protocols using the ERA system. All trainings demonstrate step-by-step instructions to navigate each specific feature. Individualized trainings can be arranged by contacting era@temple.edu.

FAQs, updated continuously, provide quick and easy answers to connectivity issues or system concerns. Use this resource as your first stop for troubleshooting problems.
Points of Contact: ERA

<table>
<thead>
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MC: Main Campus
Carnell Hall, 10th Floor
1801 N. Broad Street
Philadelphia PA 19122
era@temple.edu
RESOURCES

Faculty Research Development

Temple University offers an extensive array of programs and services designed to enhance growth and development activities for investigators at all stages of their research careers. Faculty can take advantage of professional development programs offered through a variety of workshops, webinars, and seminar series throughout the year.

For information on any of these programs, contact Rosemary C. Dillon, Director of Special Projects, at dillon@temple.edu.

Grant Academy

A successful ongoing initiative of the Office of the Vice President for Research (OVPR) is Grant Academy – a training and development program that aims to provide faculty with training and mentoring to develop their program of research as part of a cohort of colleagues. Participants engage in a year-long program aimed at improving skills and experience in seeking external support for research and scholarly activities.

Faculty participants use the year to tailor the search for funding opportunities and the development of a grant proposal based on feedback provided by the mentors in the program. New investigators are encouraged to develop the plans for initial grant-funded research. Experienced investigators are supported to develop a plan for sustaining their funded research programs. Grant Academy members are nominated by their dean/designee.

Grantsmanship Workshops

The Offices of the Vice President for Research and Corporate Foundations and Relations co-sponsor a four-workshop series on key aspects of grantsmanship training open to all faculty. This year these workshops are offered:

Grantsmanship Training – Arts and Humanities Focus

- Overview of prospecting tools and how to use them to identify funders;
- Overview of key humanities funders;
- Making a case for support;
- Transitioning from internal to external funding and knowing when you’re ready to do so;
- Developing a compelling budget.

White Papers And How To Use Them

- How to write a White Paper for various audiences – NSF, NIH, foundations;
- How to use the White Paper to solicit feedback from peers and Program Officers;
- Overview of the Corporate and Foundation Relations request form on the CFR website;
- Writing exercises.
Navigating The Funding Landscape

- Types of funding;
- Overview of prospecting tools and how to use them to identify funders;
- When and how to reach out to funders;
- Cultivating a foundation relationship;
- How Program Officers can help you;
- Knowing and navigating the funding landscape through professional opportunities.

What To Do When Your Proposal Is Rejected

- Revising rejected proposals;
- How to get reviewer feedback and how it can strengthen your next proposal;
- What to do when you can’t get feedback.

Research Exchanges/Special Topic Research Days

Faculty also are encouraged to engage in collaborative, interdisciplinary research initiatives by participating in steering committees and contributing to themed research exchanges that showcase cutting-edge research from across the university. These exchanges bring together a broad cross-section of faculty from across the university to learn about the interests and activities connected with the theme of the exchange. In addition to these exchanges, OVPR has established a number of working groups focused on specific research topics with the aim of applying for external grants and contracts. These groups help develop cross-cutting themes for research, and strategize pathways for government and industry support external grants and contracts.

Other research support resources include a broad array of internal funding programs, web-based training and event calendars, and a research infrastructure that boasts comprehensive, state-of-the-art core facilities.

Limited Submission Opportunities Program

Limited submission opportunities occur when funding agencies place restrictions on certain grant and award opportunities. These limits could include the number of proposals, applications, or letters of intent that one university can submit in a given timeframe. In such cases, the Office of Research will pre-review internal applications in order to determine which may be submitted on behalf of Temple University. As this is a common practice at research institutions, we encourage faculty before applying for an opportunity with submission limitations to follow Temple University’s limited submission process to secure authorization. If you have questions or would like to receive more information about limited submission opportunities, send your inquiry to funding@temple.edu.

Overall Process

The limited submission opportunities program involves these steps:

- Email notification and website posting of funding opportunity by the Office of the Vice President for Research;
- Indication of interest from faculty and/or staff;
• Submission of pre-proposal by faculty/staff indicating interest followed by review from a select internal peer committee;
• Notification of selection decision to internal competitors;
• Completed proposal submitted to sponsor.

**Temple Internal Funding Programs**

**Office Of The Vice President For Research**

The Office of the Vice President for Research conducts an annual Internal Funding Program for Targeted, Bridge, and Seed Awards provided by the university to support research and scholarly activities for investigators. This office also administers a new funding initiative, the Humanities and Arts Program, launched in 2014, designed specifically for faculty in the Humanities and Arts. The Grants Management division can assist faculty with navigating university systems to pursue the opportunities listed here.

**Targeted Research Funding Program**

The Targeted program supports innovative early-stage interdisciplinary research projects on a specific theme that changes each year. The Targeted research projects must demonstrate potential to expand on existing strengths or develop new innovative research related to strategic areas of emphasis for Temple. These projects must include a commercialization plan and awardees are expected to submit grant proposals to external funding agencies within a year.

Viable proposals must have significant school/college and department support. As evidenced by matching for the funds requested, including “dollar-to-dollar” matching or “in-kind” support, such as teaching relief and summer support, from the cognizant school/college or department.

**Overview**

• Between four and eight matching awards will be funded each year;
• Applicants may request up to $50,000 in direct costs for a one-year period ($50,000 per year to be matched dollar for dollar by a combination of funds from the requesting Dean);
• Additional resources and time may be requested, but an exceptionally compelling justification must be outlined in the concept paper for such a request to be considered.

**Bridge Funding Program**

Bridge funding provides financial support for existing research programs for which external funding sources are expended. The funding needs to support the continuation of the operations of a lab or program in order to avoid ending the program while external support is being reviewed or pursued. Bridge funding must be used in a strategic and coordinated way to maintain project/lab momentum while assuring effective use of limited resources. The program funds may be used to retain key personnel, the performance of limited laboratory or other research activity to permit the accumulation of new data essential to renew a source of external funding, or to prevent major disruptions in the continuation of research activities that would negatively impact the ability to secure continuation funding from external sponsors. It is expected that all discretionary monies available to an investigator will be expended before using funding provided through this program.
Starting Your Research Program

**Overview**

- Between six and eight one-year bridge fund awards of up to $25,000 will be available each year, as matching support for equivalent funds being provided by the requesting Dean.
- Target dates for submitting requests are in the spring and fall of each year;
- Requests must have the approval of the investigator’s Chair and Dean;
- Approved bridge funding will cease upon either the start date of the external award or notification that the final round of funding requests was not awarded.

**Seed Funding Program**

Seed funding affords an opportunity for special projects with the aim of fostering the engagement of multidisciplinary teams to establish linkages in order to attain extramural funding. This program is open to all disciplines, with prioritization given to projects that have the potential to position the researcher or research team to be competitive for external funding or to bring high impact to Temple University through the proposed work.

**Overview**

- Up to six seed awards between $5,000 and $25,000 will be available each year.
- Requests may be submitted throughout the year.
- Projects eligible for support include: research exchanges, campus-wide symposia, and special events of interest to researchers at Temple University, as well as pilot projects with the strong potential to position the researchers eligible for support. Projects include research exchanges, campus-wide symposia, and special events of interest to researchers at Temple University, as well as pilot projects with the strong potential to position the investigator(s) to be competitive for external funding.
- Seed funding is not available to support faculty salaries, conference travel, or research travel.
- Each academic unit is responsible for developing its own process for considering seed funding requests internally before submission through the dean to the Vice President for Research.

**Temple University Humanities and Arts Funding Program**

The Humanities and Arts Program is an exciting new initiative that fosters faculty research, scholarship and creative activity in the humanities and arts. The fund supports creative, scholarly activities that have the potential to drive external gifts, foundation funding, donations, and grant competitiveness of the individual or team. Eligible projects for this program include: publications, performances, films, artistic or museum installations, digital arts and humanities projects, and other arts or humanities works. Proposals may be discipline specific or interdisciplinary in nature. A call for proposals is typically issued in late fall.

**Overview**

- A maximum of $250,000 is available to fund either individual or collaborative projects.
- Individual projects may be submitted for up to $15,000.
- Collaborative projects may be submitted for up to $30,000.
- Funding is available for either new or continuing projects. Funds may be used over two years.
- Full-time faculty with a scholarly or artistic work in the arts and humanities are eligible.
- The budget can fund salary, supplies, travel, production costs, and events.
Temple University Technology Development Program
Temple’s $2.5M Technology Development Program serves as a matching fund for external proof-of-concept programs, and actively engages industry by matching investments directed to the development of Temple University inventions. Projects are eligible to receive up to $100K from Temple to de-risk technology with an equal cash match from an industry partner to achieve a critical milestone that will position the technology to attract follow-on funding.

This program support faculty entrepreneurs to polish technologies for potential licensure, joint venture, or spin-out formation, and to build relationships with commercial partners. Funding opportunities include gap funds (e.g. proof of concept activities) and matching funds for opportunities provided by the University City Science Center QED and the Ben Franklin Technology Partners programs. No application is necessary; your invention or product disclosure is sufficient for consideration. The evaluation process involves internal technology commercialization review and prioritization. Key areas for consideration are the need for technology diversity, a cooperative Principal Investigator, a commercial partner, and an appropriate timeline.

High priority projects are submitted to an external review process to further prioritize and identity commercial partners. An external technical expert with market experience will help Temple set an appropriate technical milestone; the Principal Investigator needs to agree to attempt to meet this commercial milestone.

Projects are eligible to receive up to $100,000 from Temple to de-risk technology with an equal cash match from an industry partner to achieve a critical milestone that will position the technology to attract follow-on funding. An internal match from a dean and/or chair also is acceptable.

Office of Faculty Development and Faculty Affairs
http://www.temple.edu/vpfaculty/awards.html

The Office of Faculty Development and Faculty Affairs offers additional funding and scholarship opportunities for faculty. A complete listing can be found at the link above. Decisions for all funding mechanisms administered by this office are made according to three criteria:

- The importance of the project;
- The feasibility of the project;
- The applicant’s record of effective use of previous awards.

Selected opportunities are highlighted here.

Grant-In-Aid
Grant-in-aid awards offer faculty another opportunity to support scholarly research/creative activity. These awards are available to all tenure and tenure-track faculty across all Temple schools and colleges. Due to funding limitations, awards are typically capped at $3,000 overall, with generally no more than $1,500 allotted to travel or related expenses.
Summer Research Award

Summer research awards are offered to support faculty to pursue professional development, conduct research and/or creative activities, and/or to develop methods and materials to improve teaching and curricula with the outcome of increasing the individual's future contribution to the University. Thirty-five awards carrying a $7,000 stipend are available each summer for the most meritorious research/creative activity proposals. All eligible faculty members are encouraged to apply.

Summer research awards are available to all tenured and tenure-track faculty from schools/colleges represented by the Temple Association of University Professors (TAUP) schools and colleges. An award recipient may not accept any teaching or other reimbursed appointment for the summer at Temple, or elsewhere. Faculty are not eligible for this award more than twice within a three-year period. Summer research awards may not be combined with a sabbatical in the same 12-month academic year; the academic year is defined as divided into three semesters – fall, spring, summer.

Sabbaticals

Sabbaticals are available for faculty to pursue professional development, to conduct research and/or creative activities, and/or to develop methods and materials to improve teaching and curricula with the outcome of increasing the individual’s future contribution to the University. All eligible faculty members are encouraged to apply.

Sabbaticals are open to all TAUP tenured, tenure-track, and non-tenure-track faculty. A faculty member on the tenure track, but not yet tenured, may apply for a sabbatical to be taken in the fourth or fifth year of full-time service at Temple. If a tenure-track faculty member’s probationary period has been extended, his/her time to apply for a sabbatical will be adjusted accordingly. Please note that sabbaticals taken by tenure-track faculty do not stop the tenure clock.

Faculty who have received a sabbatical are eligible for another sabbatical following six additional years of service. Requests to postpone an application for sabbatical or an awarded sabbatical for up to two years may be made to the respective dean. Non-tenure-track faculty who have completed ten years of fulltime service at Temple are eligible to be considered for sabbatical. Faculty members granted a sabbatical will be required to return to his/her position at Temple for at least one year.

External Funding Opportunities

To further enhance the funding information available to Temple’s faculty, the Office of the Vice President for Research posts information regarding various external research funding opportunities on the OVPR website. These include listings for federal, foundation, and non-profit organizations.

These sites are monitored and updated regularly to provide the most accurate and up-to-date information possible. In addition, Grants Management staff routinely monitor publications and databases that identify, list and describe funding sources and opportunities for external support.
Federal funding opportunities can be accessed here:
http://research.temple.edu/about/resources/federal-funding.

All other funding opportunities can be accessed here:
http://research.temple.edu/about/resources/other-funding-agencies.

**Tools for Research Collaboration**
http://research.temple.edu/about/resources/funding-portals

Temple University offers faculty various tools for collaboration through access to several funding opportunity databases. These resources provide the ability to search for funding by key words and other selection criteria. In addition to funding searches, tools such as Pivot/COS and SPIN offer the capability to search for collaborators in an investigator’s particular field or discipline. Some of these tools are highlighted here.

**Pivot/Community of Science (Pivot/COS):**
http://www.cos.com/#/

- One of the most valuable tools for researchers at Temple is to take advantage of the Pivot/Community of Science (Pivot/COS) database. Pivot/COS is a comprehensive global source of funding opportunities that affords access to billions of dollars from potential funding sponsors. Pre-populated scholar profiles are matched against more than 26,000 funding opportunities;
- Collaborators can be found from among 3 million profiles worldwide. Pivot/COS also allows funding opportunity alerts to be targeted to individual research interests based on a faculty profile.
- The Pivot/COS database contains first-person profiles of researchers at leading universities and other institutions involved in basic or applied research.
- Pivot/COS contains approximately 480,000 profiles submitted by researchers, scholars and other experts from more than 1,600 universities, government agencies, and other research and development organizations from around the world.
- Pivot/COS profiles include contact information and position, qualifications and expertise, publications, patents and awards, and Pivot/COS keywords – a standardized list, applied consistently through all profiles.
- New users can construct a profile in Pivot/COS after registering and setting up an account. For help with account registration, contact Ming-Hui Chou at era@temple.edu.
Sponsored Programs Information Network (SPIN)
https://spin.infoedglobal.com/Home/Search

SPIN is an online accessed database that provides web-based information resources and searchable databases for federal, non-federal and corporate funding opportunities designed to assist faculty and staff in the identification of external sources of support for research, education and development projects. The database is searchable using SPIN keywords, sponsor names(s), award type(s), applicant type(s), geographic region, and/or deadline date/date ranges. It includes the InfoEd Commerce Business Daily and a SPIN keyword thesaurus. It also provides listings of upcoming deadlines and allows investigators to customize email notifications of funding information.

Foundation Directory Online
https://fconline.foundationcenter.org/search/member-index

- Temple University's Office of the Vice President for Research and the Office of Institutional Advancement jointly sponsor a subscription for the Foundation Center's Foundation Directory Online (FDO) Professional via Temple University Libraries. FDO provides access to an unprecedented wealth of timely, comprehensive information on grant makers and their grants, including over 140,000 foundations, corporate donors, and grant making public charities.
- FDO contains listings of over 3.2 million recent grants, more than a half million indexed trustee, officer, and donor names, and over one million IRS 990s – all fully keyword-searchable, with 54 search fields including keyword search.
- The above link will take you directly into FDO using the institutional subscription through the library. If you are off campus, you will be prompted to enter your Temple credentials (AccessNetID and password) first.

Temple Libraries
Temple Libraries maintain a compiled list of resources on finding funding opportunities and research support services: http://library.temple.edu/services/faculty/research-support/

Temple also offers faculty several avenues for sharing expertise and collaborating with colleagues. Here are some of these resources.

OwlBox:
https://computerservices.temple.edu/owbbox

- OwlBox, powered by box.com, is Temple's new free resource for storing, sharing and collaborating on files. The OwlBox website (above) offers faculty, staff, and students 50GB of storage space, access to files anywhere including mobile devices, and sync capability with desktop files. OwlBox also has a Facebook-like feature where users can comment and exchange feedback on files that are shared. The box service automatically keeps previous versions of the documents. In addition, users can assign tasks to a shared file and supply a due date for action. To access OwlBox, log in to the TUportal link https://tuportal4.temple.edu/cp/home/displaylogin and select OwlBox on the left side of the page or go to https://temple.account.box.com/login.
- For additional information about OwlBox, please contact the Computer Services Help Desk at 215-204-8000.
Center for The Advancement of Teaching (TLC):  
http://teaching.temple.edu/

- Fostering excellent teaching so students learn, develop and succeed is the Teaching and Learning Center’s (TLC) mission. The TLC supports Temple faculty and teaching assistants (TA) by helping to enhance their teaching skills. The TLC promotes the value and practice of excellent teaching – teaching that facilitates student learning and growth. The TLC’s programs and resources support evidence-based teaching and provide opportunities for faculty and TAs to learn from the experience and expertise of their colleagues.
- The CAT serves as the hub for Computer Services’ academic technology training and on-site outreach programs for the Temple community. A range of services are offered to provide learning opportunities through one-on-one consultations, group workshops special events, and facilities that foster teaching excellence through research-based practices and the use of instructional technology.

Location
Center For The Advancement Of Teaching  
TECH Center, Room 112  
1101 W. Montgomery Avenue  
Philadelphia PA 19122

Contact:  
Email: cat@temple.edu  
Phone: 215-204-8761
**Other Key Resources**

In addition to Temple’s Office of the Vice President for Research, faculty have other key resources within their own department/division, school or college. These typically include the research business manager or department administrator, the department chair or center director, the associate dean for research, and the dean. As discussed previously, these resources will help you navigate Temple’s business systems. The research business manager/department administrator will be your point of contact or gateway for hiring laboratory staff, compensation, benefits, travel and reimbursement functions, among others. These individuals also will partner with the Research Administration divisions for all the functions described in this guide.
**CORE FACILITIES**

**Recognizing the need** to provide faculty with the necessary tools to conduct state-of-the-art research, Temple offers a wide range of research core facilities across the university. With the recent affiliation of the Fox Chase Comprehensive Cancer Center with Temple University’s Health System, researchers have access to cross-cutting tools that will continue to solidify Temple’s role as an emerging leader in basic and clinical research. Here are some of the many resources available to faculty researchers.

Temple University
- Jayne Haines Center for Pharmacogeomics and Drug Safety Core Comprehensive NeuroAIDS Center (CNAC)
- Moulder Center for Drug Discovery Research
- Temple University cGMP core
- Institute for Genomics and Evolutionary Medicine Institute for Survey Research
- biostatistical computation;
- flow cytometry and cell sorting facility confocal imaging facility
- large animal facility
- proteomics
- viral vector core facility
- magnetic resonance imaging (fMRI)
- ex vivo microcomputed tomography (microCT) core

Fox Chase Comprehensive Cancer Center
- Animal Research
  - Irradiation
  - laboratory animal
  - transgenic mouse
  - zebrafish
- Biotechnology
  - biochemistry and biotechnology
  - DNA sequencing
  - high throughput screening and translational research instrument shop
  - molecular modeling organic synthesis spectroscopy support
- Cell biology
- Computing and information
- Genetic research
  - Biosample repository
  - Genomic sequencing
    - cytogenetics and chromosome microarray analysis
    - expression microarray
    - genotyping and real-time PCR
    - laser capture micro-dissection
**POLICIES**

http://policies.temple.edu/

University Policies Related To Research

02.52.11 RESEARCH INCENTIVES

02.52.12 FINANCIAL CONFLICT OF INTERESTS IN RESEARCH

02.53.01 INVENTIONS AND PATENTS

02.54.01 MISCONDUCT IN RESEARCH AND CREATIVE WORK

04.16.01 CONFLICT OF INTEREST – ALL EMPLOYEES

04.16.02 CONFLICT OF INTEREST – FACULTY

04.16.03 GIFTS AND CONFLICTS OF INTEREST – ALL EMPLOYEES

08.2012 CONFLICT OF COMMITMENT AND CONFLICT OF INTEREST – TUSM
Office of the Vice President for Research, led by Dr. Michele M. Masucci, is poised to assist faculty, staff and students in their efforts to develop and manage their sponsored research projects as well as their obligations to conduct research in a responsible manner. Dr. Masucci and her senior team are available to assist and guide faculty as they launch their research programs at Temple University. Team members can advise and help navigate the various resources available to faculty as they strive to fulfill their responsibilities in the successful implementation of their research programs.

### Office of the Vice President for Research Senior Staff

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