PARTNERING FOR SUCCESS

A Guide to ORE Services

THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

OFFICE OF RESEARCH &
ENGAGEMENT

The Office of Research and Engagement facilitates the university's research mission by:

- Assisting faculty in securing sponsorships for research, creative, and scholarly activities.
- Promoting research as a way to enrich teaching and service at the university and to enhance the social and economic environment of the region and the state.
- Extending the protection of relevant legal, ethical, and safety standards and regulations to faculty, staff, students, research subjects, and the public.
- Ensuring that all research agreements protect the legal, fiscal, and programmatic interests of the university.
- Sharing information appropriately with the general public and with targeted internal and external interest groups about the university's research accomplishments and needs
- Supporting the engagement and outreach efforts of the campus community

MISSION

Our mission is to enable all faculty, other investigators, and students to achieve their full potential as scholars.

RESPONSIBILITIES

ORE assists with the administration of research, scholarship, and creative activities for UT and provides selected services to other university locations.

- Handling grants and contracts review for faculty researchers for the University of Tennessee.
- Overseeing various programs that provide research incentives to faculty and students under the authority of the chancellor of UT. The office also oversees internal reviews for proposals that might be competitive among the five UT entities.
- Supervising compliance with all relevant regulations and guidelines related to human subjects, biosafety, and radiation safety for UT. These regulations apply not only to faculty doing research but to students and staff involved in certain research projects.
- Providing information about research opportunities to the entire University of Tennessee System through its membership in the Pivot online data base.
- Maintaining and disseminating summary data on research awards and accomplishments for the University of Tennessee.

The office works closely with the University of Tennessee Research Foundation, a private not-for-profit foundation designed to support faculty research and entrepreneurship, and the Office of Corporate and Foundation Engagement, which serves as the single visible point of entry or front door for companies, foundations, and industry professionals seeking access to university resources.

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RESEARCH DEVELOPMENT

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Led by the Associate Vice Chancellor for Research Development, the Research Development (RD) staff provides a wide spectrum of tools and support services to help faculty succeed in obtaining external funding.

Offerings include one-on-one proposal development and project management, targeted faculty programs, opportunities for interdisciplinary collaboration, and up-to-date research intelligence.

PROPOSAL DEVELOPMENT

ORE's RD staff supports everything from investigator-initiated proposals to early career awards to large center grants. From opportunity identification to proposal submission and everything in between, our strategists work across the proposal development continuum to present faculty research in a compelling way to increase proposal competitiveness. Early career faculty and single investigators can work one-on-one with an experienced team member who can help shape funding goals and proposals for external funding. Faculty can receive guidance on applications to prestigious fellowship programs as well as federal opportunities.

The RD staff facilitates large proposals by identifying opportunities and potential partners, facilitating team formation and long-term planning, and coordinating review teams with an emphasis on large strategic proposals. Tasks include timelines and proposal submission checklists, in addition to writing, editing, and graphics.

Additional assistance can be found online in the Grantseeker's Toolkit on the ORE website. The toolkit includes include samples of funded proposals, articles on crafting competitive proposals, links to frequently needed institutional information, agency-specific resources, and information about required supplemental documents such as data management plans.

FACULTY PROGRAMS

The RD staff coordinates a variety of programs to help faculty strengthen their proposal writing skills, understand the nuances of the different funding sponsors and agencies, and identify the most appropriate funding opportunities. In addition, several programs focus on special areas.

Creative Residencies, Awards, Fellowships and Trainings (CRAFT) Program
Primarily for faculty in the School of Art, School of Music, College of Architecture+Design, Theatre Department, and English Department, this program offers personal assistance, small group help sessions, funding communications, and opportunities for collaboration.

Fulbright Program

This program provides a range of support for the application process, including workshops, group meetings, small writing groups, faculty mentors, and a review of final applications.

Humanities Faculty Fellows Program

This program focuses on the National Endowment for the Humanities, the American Council of Learned Societies, Guggenheim, and off-campus fellowships. Support includes meetings and draft reviews by Humanities Fellows.

Initiative for the Future

This program for junior faculty focuses on prestigious national faculty awards and In Interdisciplinary collaborations in fields of emerging significance.

CAPTURE MANAGEMENT

The RD staff coordinates the capture management strategy for external funding at UT. This includes obtaining funding intelligence, identifying agency contacts and emerging priorities, and organizing on-campus events.

Three newsletters are regularly distributed to keep faculty members abreast of funding opportunities and updates from agencies. The Funding Opportunities Digest is sent out Mondays and includes new solicitation highlights from major federal agencies as well as foundations and internal opportunities. The Limited Submissions newsletter is distributed whenever a relevant solicitation is announced. The Arts & Design Opportunities Is a biweekly newsletter that distributes opportunities for fellowships, residencies, and other grants related to creative activities (signup/e2ma.net/signup/1902089/1776413/). The UT NIH Research Community listserv (NIH@listserv.utk.edu) is a forum to share NIH news and announcements, to learn about workshops and speakers, and to connect with potential collaborators across campus and beyond.

Sign up to receive the Funding Opportunities Digest, Limited Submission Opportunities newsletter, or UT NIH Research Community Digest at research.utk.edu/subscribe

RESEARCH COLLABORATION

In an increasingly collaborative world, it is imperative that institutions organize policies and procedures to enhance interdisciplinary research participation and support, foster an interdisciplinary culture, and promote cooperative synergistic efforts to tackle society's grand challenges.

The RD team cultivates an environment that is supportive of researchers who wish to pursue collaboration, including inter-institutional relationships. The Communities of Scholars (CoS) program and events such as FUSION and SPARK are open to professors who are interested in seeking interdisciplinary collaborators either for a specific project or for a broader research goal. Interdisciplinary research groups are eligible to apply for internal seed grants to conduct research that positions them for future success in the external funding arena and eventually future centers and institutes.

COMMUNITIES OF SCHOLARS

Each Community of Scholars (CoS) is composed of UT researchers from multiple departments, colleges, and units, united by a shared research theme or topic area and organized to share research capabilities, assess collective research strengths, and explore opportunities for collaboration.

- Appalachia: Tim Ezzell, tezzel@utk.edu
- Biomembranes: Todd Reynolds, traynol6@utk.edu
- Brain-Computer Interface: Xiaopeng Zhao, xzhao9@utk.edu
- Cancer: Steven Ripp, saripp@utk.edu
- Critical Race Collective: Jioni Lewis, jalewis@utk.edu and Michelle Christian, mchris20@utk.edu
- Illuminate Digital Scholars: Rob Spirko, rspirko@utk.edu
- Intersectionality:Patrick Grzanka, patrick.grzanka@utk.edu
- Mindfulness: Kenton Yeager, kyeager2@utk.edu
- Simulations + Gaming + Roleplaying (SGR): Ryan Windeknecht, rwindekn@utk.edu

STRATEGIC RESEARCH INITIATIVES

sri@utk.edu

Strategic Research Initiatives is an externally focused group that facilitates research growth in strategically important areas. The competitive landscape for research funding is shifting and becoming increasingly difficult and complex. Due to accelerating technology and innovation, sponsors are seeking academia and industry research to fuel this paradigm through the convergence of disciplines and ideas in a collaborative open innovation ecosystem. SRI is focused on elevating our research intelligence capacity and strategic research capabilities to help give the university a competitive advantage.

RESEARCH INTELLIGENCE

SRI explores and acquires information to identify emerging opportunities from federal sponsors and agencies that are not yet fully developed or publicized. Using this actionable intelligence of external research needs, SRI helps align university capabilities, and identify gaps, competitors, partners, and potential strategic growth areas. Doing so provides UT faculty access to an increased number of diverse opportunities and allows them to more proactively pursue external funding earlier in the opportunity development cycle.

RELATIONSHIP BUILDING

An essential element of obtaining external support for research is building relationships with agency stakeholders, particularly program managers. SRI connects faculty with mission agencies like the Department of Defense (DoD) and Department of Energy (DOE) and helps to sustain engagement with them over time. The office also assists in finding external collaborators to partner on research projects. The unit facilitates faculty engagement with federal program managers by providing input on key technical challenges as well as sharing ideas for new science and technology innovations.

PARTNERSHIP DEVELOPMENT AND ENTREPRENEURSHIP

SRI plays an active role in promoting faculty entrepreneurship and interfacing with UT System federal relations, the UT Research Foundation, Oak Ridge National Laboratory, Y-12 Nuclear Security Complex, and UT's Corporate and Foundation Engagement on outreach to corporate entities and partnership development at the nexus of government, academia and industry. We assist in matters pertaining to the growth of intellectual property, as well as champion efforts and interactions with the Association of Public & Land-grant Universities Commission on Innovation, Competitiveness and Economic Prosperity.

FACULTY SUPPORT

Faculty Connections

SRI fosters connections with external organizations through means such as hosting agency officials to meet with faculty, organizing on and off campus events to showcase faculty research, and arranging faculty visits to federal agencies and agency-sponsored events. In certain cases, financial support for these visits may be available.

Contact SRI if you are interested in:

- Learning about emerging external research opportunities with federal mission agencies
- Seeking federal funding for joint university/industry research
- Working with small businesses through Small Business Innovation Research (SBIRs) or Small Business Technology Transfer (STTRs)
- Entrepreneurship

RESEARCH INTEGRITY

The Office of Research Integrity, under the associate vice chancellor for research for responsible conduct of research and institutional research integrity, is responsible for the development and implementation of policies and procedures governing research and creative activity and the administrative aspects of research operations. It provides administrative support and assistance in complying with applicable laws and regulations in the following areas of research compliance:

- Research conflict of interest (COI)
- Export control
- Human Research Protection Program (HRPP)
- Responsible conduct of research (RCR)

ORI also partners with UT's Environmental Health

and Safety office to ensure safe research practices

in laboratories, work spaces, and proper handling of hazardous materials and waste as well as UT's Institutional Animal Care and Use Committee (IACUC).

View the Office of Research Integrity website at **research.utk.edu/compliance**

RESPONSIBLE CONDUCT OF RESEARCH

Responsible conduct of research (RCR) is defined by the National Institutes of Health as "the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research." Responsible and ethical conduct of research is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists and engineers.

Plagiarism Prevention
Plagiarism or the perception of plagiarism is the most prevalent violation within the realm of research misconduct. In an effort to make the production of scholarly work more transparent, the Office of Research and Engagement has contracted with a vendor used by universities, government agencies, and academic journals worldwide.

iThenticate
iThenticate is a plagiarism detection software site that will help faculty and student researchers avoid "cut and paste" or citation errors that might be unacceptable in funding proposals or scholarly articles, or other types of written products.

Learn more about iThenticate and how to gain access: **research.utk.edu/ithenticate**

For questions regarding compliance training, RCR, or iThenticate, contact at **oretraining@utk.edu**

Resources

The Office of Research and Engagement has created a repository of information regarding responsible conduct of research (RCR):

- Information and guidance from the U.S. Department of Health and Human Services
- Research guides, style manuals, consultations, and online tutorials from the UT Libraries
- Faculty handbook, dissertation and thesis processes, ORE's Grantseeker's Toolkit, and IDPs and RCR institutional plans
- UT's policies pertaining to the responsible conduct of research and conflict of interest
- Training hosted by CITI and RCR workshops hosted by ORE
- Plagiarism prevention, data management plan, and other research tools Visit the resource page at **research.utk.edu/responsible-conduct-of-research.**

Training Resources

Training in RCR is required for numerous grant opportunities. The Office of Research and Engagement provides multiple avenues for receiving RCR training:

The Office of Research and Integrity offers workshops each semester that promote comprehensive and accessible training in RCR. **tiny.utk.edu/ore-workshops**

UT partners with CITI to provide online compliance training modules, including those in RCR: **research.utk.edu/trainingworkshops/citi**

HUMAN RESEARCH PROTECTION PROGRAM INSTITUTIONAL REVIEW BOARD

Human Research Protection Program

UT is committed to conducting research of the highest ethical standards. In order to fulfill this commitment, the university established the Human Research Protection Program (HRPP). The HRPP is a collective effort by all of the components that participate in the conduct, review, approval, education, quality improvement, and facilitation of human subjects research conducted by UT faculty, staff and students to ensure ethical and regulatory obligations are met. The major components of the HRPP are the Human Research Protections Office (HRPO), the Institutional Review Board (IRB), the university, and the researchers. The HRPO provides the campus and the IRB with professional guidance and administrative support.

Institutional Review Board

The IRB provides review and oversight of all research activities involving human subjects conducted by UT faculty, staff, and students. The IRB is a faculty-led committee appointed to ensure rights and welfare of human research subjects by

- Promoting informed consent, voluntary participation, and safety among research participants
- Ensuring that researchers adhere to ethical standards, federal regulations, state laws, and institutional policies governing human subjects research.

Newsletter
The monthly HRPP newsletter contains helpful information for those navigating the IRB process. Past issues are accessible online at **irb.utk.edu.**

Contact HRPP: 865-974-7696, **utkirb@utk.edu.**

Resources

Whether you have ongoing research studies from your previous institution or are just getting started in human subjects research, you can find answers to your questions at **irb.utk.edu/faq.**

Training

The UT IRB requires that all individuals involved in human subjects research activities must complete the CITI human research protections training course. Please consult our guidance on registration and, if you have taken this CITI training at your previous institution, how to transfer CITI credits to UT. You can find additional information on the IRB website.

EXPORT CONTROL

Export control regulations are federal laws that prohibit the unlicensed export of certain commodities or information for reasons of national security or protections of trade. Export is defined very broadly to include an oral, written, electronic, or visual disclosure, shipment, transfer, or transmission of any commodity, technology (information, technical data, assistance, or software code) outside the United States to anyone (including a US citizen) or to a non-US entity or individual, wherever they are located even if that individual is located within the US. Of note, deemed exports consist of the sharing of controlled or restricted information with non-US citizens even if that sharing occurs inside the US. Export controls usually arise for one or more of the following reasons:

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

The export control office works with researchers who are participating in projects with export control concerns to develop plans for protecting the research.

Consequences of Noncompliance

Violations of export control regulations are associated with significant penalties such as monetary fines, loss of privileges, and even imprisonment. These consequences are applicable to both the institution and the individual. Keeping in mind that the penalties vary by agency, the Department of State notes that ITAR export control violations can include fines of up to $1 million dollars per criminal violation or fines of up to $500 thousand dollars per civil violation.

Jail sentences have been mandated for faculty members who break compliance rules in spending grant dollars and who have export control transgressions. One of the most frequently cited violations happened at the University of Tennessee in 2009.

Contact: 865-974-0232, dmalkemu@utk.edu

SPONSORED PROGRAMS

osp@utk.edu

PROPOSAL REVIEW & SUBMISSION

The Office of Sponsored Programs (OSP) is committed to assisting the UT research community in submitting high quality proposals to external sponsors for funding. We are available to help with any administrative questions that might arise during proposal preparation. OSP can assist with the following during the proposal creation and review process:

- Guidance and consultation on proposal development
- Proposal review, processing, and submission to sponsor
- RFP/solicitation review to ensure compliance with sponsor requirements
- Budget review and assistance with budget development
- Creation of agency-specific user accounts (NSF Fastlane, NIH eRA Commons, NASA NSPIRES, etc.)
- Serving as official institutional signatory for proposals
- Assistance with responding to sponsor requests for additional information

OSP requires the proposal to be submitted to our office five business days prior to the sponsor's deadline. For more information about the deadline policy, see **osp.utk.edu/proposals/submission-deadlines.**

RESOURCES & INFORMATION

Forms

The OSP website has several forms that are helpful during proposal creation and the award process. Find them at **osp.utk.edu/forms-osp.**

Proposal Information

Are you looking for basic information to include in your proposal? You can find all this information online at **osp.utk.edu/proposals/proposalinformation.**

Professional Development

OSP offers several workshop opportunities throughout the academic year on a variety of topics: proposal development, how to use Cayuse Research Suite, and more.

Find current opportunities at **tiny.utk.edu/ore-workshops.**

Need Help?

More information is available on **osp.utk.edu**. Our experienced staff members are available should you need assistance: **osp.utk.edu/staff.**

AWARD REVIEW & ACCEPTANCE

Once an external sponsor has decided to provide funding for the proposal submitted, an award is usually sent to OSP. OSP reviews the award document and signs the contract or associated documents on behalf of the University of Tennessee to accept the award. Below are some of the areas that OSP is responsible for during the award review and acceptance process.

- Contract review to ensure compliance policies and procedures of the sponsor and the university
- Negotiation of externally funded contracts and other research-related agreements (material transfer, confidentiality, etc.)
- Creation, negotiation, and processing of outgoing subawards
- Serving as liaison between faculty and sponsors
- Final approval on contracts and agreements
- Award setup in Cayuse SP

Listserv

OSP manages a listserv to communicate important information about the following:

- Notification of electronic submission system issues for sponsors
- Updates to UT F&A rates or fringe benefit rates
- Announcements of workshops offered by OSP
- Notifications regarding the Cayuse modules

To join the OSP listserv, send an email to **osp@utk.edu.**

Questions?

Send your questions or concerns to **osp@utk.edu** or call us at 865-974-3466.

Website: **osp.utk.edu**

AWARD MANAGEMENT

During the conduct of the project, OSP assists with administrative questions and information that may need to be submitted to the sponsor. Examples of the types of items that OSP provides assistance with during this phase are listed below:

- Administration of additional funding received from the sponsor for subsequent years or increments of funding
- Post-award changes (rebudgeting, no-cost extensions, change of PI, etc.)
- Submission of required interim, annual, or final reports to sponsor
- Submission of patent reports to the sponsor after the project has been completed (if required)
- PI transfer for faculty coming to and leaving UT
- Coordination with Sponsored Projects Accounting

RESEARCH ENGAGEMENT
mmoazen@utk.edu

Research Engagement, connects our faculty's research to a broader audience: current students, K-12 students, or the community. The office also works with faculty to support broader impacts of their research.

The Research Engagement team works with faculty to generate ideas for sharing the benefits of their research to society. We have assembled a list of projects that our staff can provide administrative and logistical assistance to support your efforts.

BROADER IMPACTS

Broader impacts are required for National Science Foundation proposals and "may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are directly supported by, but are complementary to, the project."

Working with Undergraduates (ugresearch.utk.edu)

- Host UT undergraduates in research during the academic year Host a summer research program (usually 2-12 UT or non-UT students)
- Offer a 1-2 week intensive "summer school" on a focused topic for undergraduates and graduate students
- Consider a summer transition or research program for community college students Be a judge for UT's annual research exhibition event
- EURēCA

Working with the Community (engagement.utk.edu)

- Participate in engaged scholarship (connecting your research with a community partner for mutual benefit)

Work with K-12 Students (prep.utk.edu)

- Speak at local schools/offer hands-on activities at schools
- Mentor high school or middle school science fair projects (typically off-site at the school)
- Offer internships either during the year or summer for high school students to conduct research
- Offer a one-week overnight camp as a high school intensive introduction to your field

- Offer a 1-4 week day camp for high school students around your research topic or major discipline area
- Be a judge for the Southern Appalachian Science and Engineering fair (SASEF)
- Be a judge for the Tennessee Junior Science and Humanities Symposium (TJSHS)
- Teach at the Governor's School for Sciences and Engineering held at UT every June, either in a discipline area or offering an interesting personal and/or professional development opportunity
- Be an event coordinator at the State Science Olympiad Tournament (held at UT every April)

Read more about NSF Broader Impacts at **broaderimpacts.net/wp-content/uploads/2018/01/nabi-current-state-of-bi-011118.pdf.**

UNDERGRADUATE RESEARCH

The Office of Undergraduate Research (OUR) ensures all students are provided the opportunity for academic engagement through research-based experiential learning experiences, and is open to all teaching and research faculty who mentor undergraduates, including faculty from graduate programs.

OUR serves as an umbrella for on-campus faculty-mentored research and a bridge for connecting students to opportunities outside UT. There are multiple avenues for student engagement in undergraduate research at UT, whether it's participating in classroom-assigned research, pursuing an off-campus research based internship, or assisting a faculty member in their sponsored research program.

Programs & Activities

In addition to faculty research programs, OUR offers several programs and activities for student involvement in research:

- Funded research opportunities in fall, spring, and summer
- Course based Undergraduate Research through R-designated courses
- Ability to volunteer on research projects
- International Research Opportunities
- Discovery Living and Learning Community

Faculty mentors

OUR provides resources for faculty interested in mentoring undergraduate researchers—a rewarding experience for both parties.

Explore, the Research Opportunities Database

Faculty with research and creative work opportunities through UT programs, independent projects, or general research support can post paid, volunteer, or academic credit positions for students through the Explore database.

R-Designated Courses

Through the Undergraduate Council, faculty can request the addition of a research (R) designation to a new or existing course that meets defined criteria. The R designation will appear on student transcripts allowing confirmation of participation for graduate schools and employers.

Funded Research Assistants

Funding for undergraduate research assistants is available on a competitive application basis.

Grant Writing and Broader Impacts Support

Thinking of including undergraduate research in an external funding proposal? The office can assist with application preparation, coordination of administrative aspects of your programming ideas, and support for developing broader impacts.

Student Success

Through OUR, several opportunities exist for students to exhibit the outcomes of their research experiences.

Social Media
Facebook – UTK Undergraduate Research

Twitter – @UgradResearch

Instagram – @UgradResearch

Find more information online at **ugresearch.utk.edu**

Discovery Newsletter
Subscribe to our monthly newsletter at **research.utk.edu/subscribe**

On-campus Opportunities

- Exhibition of Undergraduate Research and Creative Achievement (EURēCA)
- Discovery Day
- URSA's Undergraduate Research Symposium
- Pursuit, the university's journal of undergraduate research
- Travel grants to attend:
- Posters at the Capitol
- Posters on the Hill, sponsored by the Council on Undergraduate Research
- National Conference on Undergraduate Research (NCUR)
- A discipline-specific conference in your field

Several university departments also offer avenues for research dissemination.

Summer Research Scholars

OUR operates a Summer Research Scholars program to assist faculty with planning and activities for UT and non-UT students joining your research projects during the summer.

- Coordination of on-campus housing
- Professional development series for students
- Group social activities
- Assistance with navigating processes for hosting non-UT students

Let's Get Started!

Undergraduate Research Information Sessions are offered Mondays at 11 a.m. and Thursdays at 3 p.m. (on most days when classes are held) in Blount Hall Room 407B. Registration is requested to guarantee a seat: **ugresearch.utk.edu/students/getstarted**

COMMUNITY ENGAGEMENT & OUTREACH

The Office of Community Engagement and Outreach (OCEO) was established in 2013 as part of the university's intention to more deeply integrate community engagement with its land grant mission of research, teaching, and outreach. The office fosters that mission by connecting university knowledge with community knowledge in mutually beneficial ways. All of its work emphasizes university-community partnerships that are collaborative, participatory, empowering, reciprocal, and anchored in scholarship.

Community Engagement Defined

UT uses the Carnegie Foundation's definition of community engagement. Community Engagement describes the collaboration between higher education institutions and their larger communities—local, regional/state, national, global—for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. The engagement can lead to participatory and interdisciplinary research that helps complex issues. Interdisciplinary research, or IDR, combines two or more disciplines into something new that crosses boundaries. IDR collaboration is a rich interaction that moves toward a new approach to problem solving involving cross-boundary reinvention, basically resulting in new permanent disciplines through convergence.

In an increasingly collaborative world, it is imperative that institutions organize policies and procedures to enhance IDR participation and support, foster an interdisciplinary culture, and promote cooperative synergistic efforts to tackle the community's grand challenges.

Carnegie Classifications

In 2006, the university earned the top classification of Research University (Very High Research Activity) and, in 2015, the Carnegie Community Engagement classification, recognizing UT as a community-engaged institution by the Carnegie Foundation for the Advancement of Teaching. To achieve the designation, campuses must document their collaborations with local, regional, state, national, and global organizations "to enrich scholarship, research, and creative activity; enhance curriculum, teaching, and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good."

> **Connect With Us**
>
> Impact, a monthly newsletter produced by the Office of Community Engagement and Outreach, supports the university's community engagement mission by highlighting new resources, information, and opportunities.
> Subscribe: **research.utk.edu/subscribe**
>
> Website: **engagement.utk.edu**
>
> Email: **engagement@utk.edu**

Who We Serve

OCEO provides resources to assist members of the administration, academic departments, faculty, and staff to address issues of concern to society by encouraging and supporting external partnerships that co-generate, apply, transmit, and preserve knowledge.

Studies have found that building an engaged campus requires an intentional plan that moves the institution from a one-way outreach delivery framework to an engagement, or two-way partnership, framework. Research shows association between community engagement and:

- Higher retention rates (faculty and students)
- Increased public appropriations
- Increased capacity in a university's research and teaching functions
- Increased campus diversity in many dimensions

Academic Outreach & Engagement Council (AOEC)

The council is composed of UT faculty members who have an interest in academic outreach and engagement.

- Developing, proposing, and continuously improve policies for academic outreach and engagement
- Serving as the primary faculty representative and advocate for engaged scholarship.

Membership is open to all UT faculty. Apply at **engagement.utk.edu/aoec.**

PRE-COLLEGE RESEARCH EXCELLENCE PROGRAMS

Pre-college Research Excellence Programs (PREP) are research-focused programs geared to promoting STEM disciplines. Programs include competitions, summer camps, and admissions related events. Our goal is to increase the number of students seeking a STEM degree in college.

Southern Appalachian Science and Engineering Fair (SASEF)

SASEF is the premier science and engineering competition for students in middle and high school in our 23-county service area of East Tennessee since 1952. There are two divisions of competition: Junior Division for middle school students, grades 6–8, and Senior Division for high school students, grades 9–12. Students compete in a science-fair based competition to showcase their scientific research in poster and oral format to a panel of UT faculty judges. The fair is sponsored by the University of Tennessee and many local companies and agencies. Winners of the senior division move on to the International Science and Engineering Fair.

Science Olympiad

Held each spring, Science Olympiad is a sport-like STEM competition for K-12 students designed to challenge students and invoke teamwork. Teams of 15 students develop their teamwork and problem solving throughout the year in preparation for the events. Middle and high school teams compete in one-day regional tournaments held at several locations throughout Tennessee, with the winning teams progressing to the Tennessee State Tournament. Winners of the state tournament move on to the national competition. Since

1994, the university has hosted the Tennessee State Science Olympiad tournament.

Governor's School for Science and Engineering (GSSE)

GSSE provides the opportunity for advanced study, laboratory experience, and research in modern science and mathematics placed in an appropriate context through the explicit study of scientific reasoning. The program, has been held at UT since its inception in 1985.

Tennessee Junior Science & Humanities Symposium (TJSHS)

TJSHS is a regional affiliate of the national Junior Science and Humanities Symposium. The JSHS gives high school students a chance to present original scientific research in a public forum and compete for scholarships, while providing participants opportunities for hands-on workshops, panel discussions, career exploration, and research lab visits. Every year, more than 10,000 students from high schools throughout the United States, Puerto Rico, and the Department of Defense Schools of Europe and the Pacific Rim, participate in a regional JSHS symposium. The Tennessee JSHS is one of forty-eight regional JSHS programs and has been held at the UT since 1965. Winners move on to the national symposium.

Research Day

Co-sponsored by the Office of Undergraduate Research and the Office of Undergraduate Admissions, this event is the first of its kind. Research Day showcases some of the most exciting research areas on campus. During breakout sessions high school students and parents visit labs, studios, classrooms, and more to learn about the experiential learning activities happening across disciplines.

Day at the Lab

Co-sponsored by the UT Office of Undergraduate Admissions and the Office of Undergraduate Research, rising high school seniors are invited to attend a tour of Oak Ridge National Laboratory (ORNL) and learn about the partnership between UT and ORNL. In order to learn firsthand about the experiences available, student guests are invited to have lunch with current UT students interning at ORNL.

Tennessee Science Bowl Sponsorship

The Science Bowl is a fast-paced academic competition that offers teams of high school students from across the state

Learn more about these programs at **prep.utk.edu**

The University of Tennessee has a robust research enterprise, with $260 million in total research expenditures. With an increasingly diverse mix of sponsors who support the university's research enterprise, it is essential for faculty members to identify and secure funding from a wider range of sources. ORE's Research Development (RD) team is committed to working directly with faculty to understand their funding needs and help identify funding opportunities.

STARTUP FUNDS

Startup funds are often a critical element in the successful recruitment and launch of a faculty member's academic career. All tenured and tenure-track faculty, regardless of discipline, are eligible to receive start-up funding support. Funds are provided to cover expenses that are deemed necessary to help the new faculty member achieve a rapid start for their research program. Startup funding periods will normally be for three years. Special requests for periods longer than three years require detailed justification. No startup funds may be used beyond five years. Additional detail may be found on our website at **research.utk.edu/policies**

SCHOLARLY ACTIVITY & RESEARCH INCENTIVE FUNDS

The Office of Research and Engagement administers funding to support research and creative activities through its Scholarly Activity and Research Incentive Funds (SARIF).

Ten programs are available to faculty and principal investigators whose departments fall under the jurisdiction of the chancellor. The SARIF programs outlined in this document are described in terms of types of cost that a program covers, type of proposal match, eligibility, and review process.

More about each of these categories can be found at **research.utk.edu/funding/internal/sarif.**

Equipment & Infrastructure Fund

Major equipment purchases, upgrades, renovations

Exhibit, Performance, & Publication Expense (EPPE)

Supports costs in disseminating the results of faculty scholarly activity. There are four categories: EPPE Art, EPPE Performance, EPPE Subvention, and EPPE Other

Faculty Fellowship Program

Supplemental funding for faculty who receive competitive in-residence fellowship awards

Federal, Corporate, & Foundation Opportunity

Develops future funding opportunities and may also provide support to host representatives of funding agencies during an on-campus activity.

Foreign Travel Fund

Supports travel for faculty to present the results of their scholarly activity at meetings or conferences held outside the United States

Opportunities Fund

Strategic and/or high-level institutional investments

Open Publishing Support Fund

Co-sponsored by UT Libraries, this fund supports publications in open access journals. Hybrid journals are not eligible for funding

Scholarly Projects Fund

Supports workshops, colloquia, conferences, and similar activities held at UT

Summer Graduate Research Assistantships

Support for faculty proposed research and scholarship endeavors

Supplemental Funding for In-Residence Fellowship Awards

For UT tenured and tenure-track faculty members who receive competitive fellowship awards that require residence at an academic research center, library, or university

Find the necessary start-up forms at **research.utk.edu/forms**

STRATEGIC & TRANSFORMATIVE INVESTMENTS IN RESEARCH

ORE's Strategic and Transformative Investments in Research (STIR) program provides funding to grow the research enterprise at the University of Tennessee, Knoxville.

The STIR program is led by the associate vice chancellor for research development. Faculty who are pursuing new avenues of research, research funding, or championing a new initiative beyond their own individual research agenda may apply for these funds.

Research Seed Funding

The seed grant program offers internal funds for research intended to (1) help generate more compelling grant submissions, (2) initiate new intellectual directions for our faculty, and (3) foster new relationships across colleges, departments, centers, and the community.

Seed proposal evaluations are based on an external funding strategy and scientific merit.

Funding is typically provided for one or two years. An annual call is posted in the fall semester.

Center Funding

Centers that have a large return on investment and/or are in a significant net growth mode of operation.

Communities of Scholars

Each community of scholars is composed of UT researchers from multiple departments, colleges, and units, united by a shared research theme or topic area and organized to share research capabilities, assess collective research strengths, and explore opportunities for collaboration. Funds are available to support the activities of approved communities of scholars.

Core Facilities Investments

This funding will help fund strategic investments in the UT Core Facilities program. UT core facilities are shared resources available to all researchers, often on a fee-for-service basis.

Additional information about core facilities can be found at **research.utk.edu/core/core-facilities.**

FUSION

Faculty Understanding Science in Open Networks (FUSION) Facilitated Workshops bring 20-40 faculty members from multiple disciplines together to discuss one scientific topic. The day is spent sharing perspectives, teaming, setting goals, and developing action plans. The FUSION workshop culminates in forming new collaborations, some of which are seeded with a small award.

If you have an idea for a FUSION event, contact Kimberly Eck (**AVCRD@utk.edu**).

Large Capture Support

This funding is used to defray costs associated with going after large funding opportunities. Examples include EFRI, ERC, IFEWS, MRSEC, and STC.

SPARKS

Seeking Partnerships for Research and Knowledge (SPARKS) events are meant to provide faculty with the opportunity to meet potential collaborators and exchange ideas with colleagues in a multidisciplinary group. Be prepared to network and share your ideas. If you have an idea for a SPARKS event, contact Kimberly Eck (AVCRD@utk.edu).

Targeted Faculty Research Support

Funding provides direct support for faculty research, especially in new areas or areas that are in line with a stated UT research priority.

PIVOT DATABASE

Pivot is a comprehensive database of funding opportunities and researcher profiles that is searchable by all researchers, staff, and students with a UT NetID. The funding opportunities database includes federal, non-federal, foundation, and private opportunities, both domestic and international, and represents the full range of academic disciplines and funding types.

Find information about Pivot at research.utk.edu/funding/pivot

RESEARCH INFORMATICS
abanks16@utk.edu

The Research Informatics unit is responsible for providing data relative to the research enterprise including mining information from award, proposal, expenditure, and publication databases; generating research activity reports; tracking various research output and research impact data; analyzing changes in external funding support; and identifying trends in the university's research performance.

Specific responsibilities include:

- Data querying and data aggregation from the internal sources
- Standard and ad hoc report generation
- Data collection from the external sources
- Data analysis and visualization to identify potential trends for use by others in decision-making
- Data analytics initiatives
- Developing and maintaining procedures to improve accuracy and efficiency of data querying, report generation, and data presentation processes.

Resources

Find annual, quarterly, and monthly reports at research.utk.edu/research-informatics/

The UT System Business Intelligence team posts research activity reports at bi.tennessee.edu/research/

If you have a custom data request, please submit your request at research.utk.edu/research-informatics-data-request/

CORE FACILITIES
jphipps@utk.edu

The mission of the UT Core Facilities Program (UTCFP) is to ensure that faculty have access to the tools necessary to be successful in achieving the goals of their research program. To accomplish this, core facilities operate and maintain high-end instrumentation and provide access to expert consultation and analytical services to the UT research community on a cost-recovery basis.

While these resources are managed by their home departments, the UTCFP supports operations and seeks to improve the resources that are available to researchers. Recommendations for the recognition, support and operations of core facilities are provided by the Core Facilities Advisory Committee are made by UT's Core Facilities Advisory Committee.

ACCESSING UT CORE FACILITIES

Equipment and service reservations are managed through the Stratocore Billing and Scheduling system, which acts as the portal for locating and booking equipment or services within UT Core Facilities. By integrating with the university's financial software, invoicing is handled both seamlessly and automatically. New users may request an account by filling out the form at **ppms.us/utk.edu**

UT CORE FACILITIES

Joint Institute for Computer Sciences
- Advanced Computing Facility

Joint Institutes for Advanced Materials Core
- Advanced Photoelectronics Sprectrometry
- Electron Microscopy
- Electromagnetic Properties
- Micro-Processing Research
- Molecular Beam Epitaxy
- X-Ray Diffraction

Center for Environmental Biotechnology Core
- BioImaging
- Bioinformatics
- High Throughput Sequencing

Division of Biology Core Resources
- Advanced Microscopy and Imaging Core
- Sanger Sequencing

Chemistry Core Resources
- Biological and Small Molecule Mass Spectrometry
- Polymer Characterization Lab

Communications Core Resources
- User Experience and Messaging Effects Core

Engineering Core Resources
- Ion Beam Materials Lab
- Water Quality Analysis

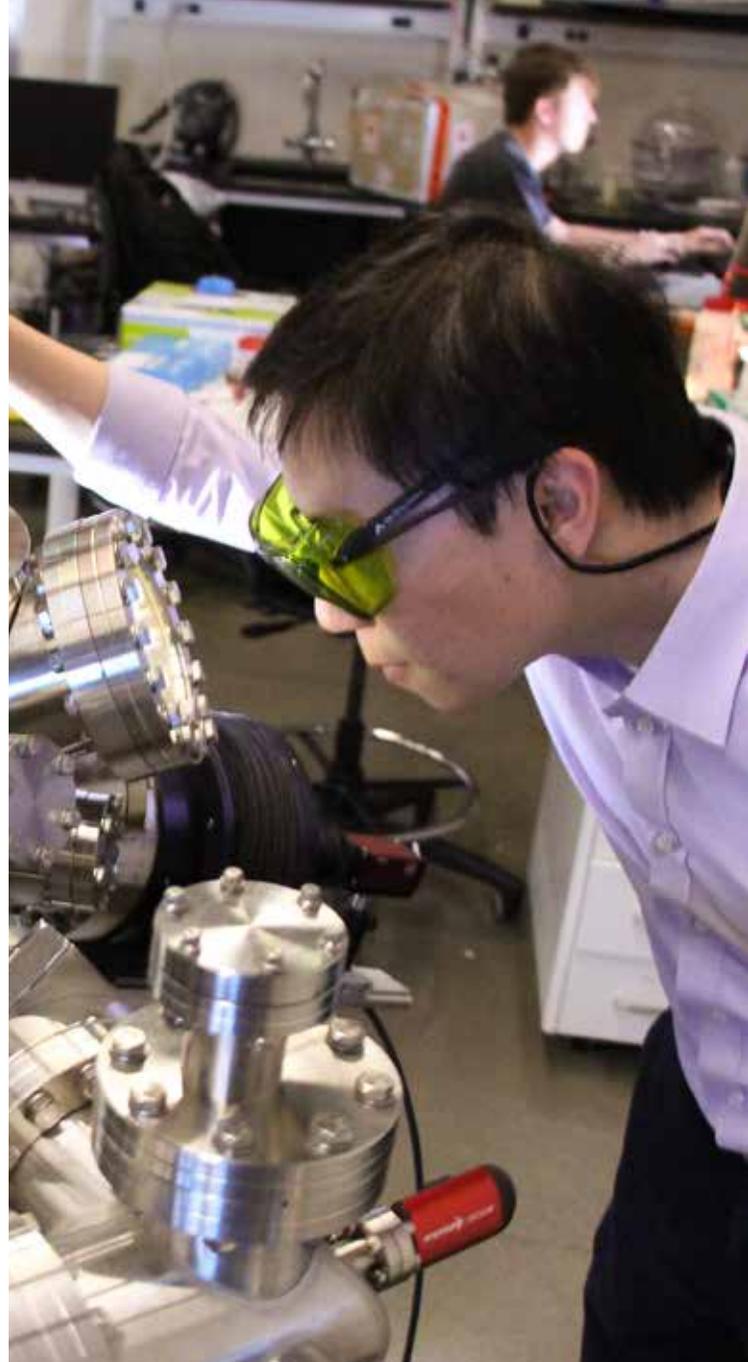### McClung Museum Core Resources
- Laboratory for Environmental Archaeology

Learn more at **research.utk.edu/core/core-facilities/**

Resources

The UTCF program maintains a listing of additional resources that support the research enterprise. These resources are managed by their home departments and may be available for use. For more information, see **research.utk.edu/core/associated-resources.**

If you are having difficulty finding information on one of our core facilities or you would like to make a suggestion for additional cores or services, email **utcfp@utk.edu.**

SCIENCE ALLIANCE

The Science Alliance, a Tennessee Higher Education Commission Center of Excellence, established in 1984, has a mission to expand cooperative ventures in research with Oak Ridge National Laboratory (ORNL) and, in that process, enhance science and engineering research programs at the University of Tennessee. The Science Alliance emphasizes investments in research programs of strategic importance to both the UT and ORNL.

Competitive funding calls associated with collaborative research take place throughout the year and include support for affiliated research teams, large capture proposal development and student training grants. The Science Alliance also supports efforts focused upon the expansion of educational programs in the sciences and technology as well as economic development initiatives aimed at promoting public-private partnerships.

Joint Directed Research Development (JDRD) Program

The Joint Directed Research Development (JDRD) Program is a Science Alliance funded initiative aimed at catalyzing collaborations between researchers from UT and ORNL. Historically, the JDRD program has paired UT researchers with ORNL staff scientists through projects that have complemented Laboratory Directed Research Development (LDRD) or ORNL Seed Money Fund investigations.

The most recent funding call for the JDRD program has narrowed the scope of available funding to specified topics of mutual strategic interest:

*   Artificial Intelligence (AI)
*   Resilient Cyberphysical Systems
*   Quantitative Biology and Genome Security

Future funding calls will continue to focus on cutting edge topics in science and engineering.

JDRD solicitations are generally distributed in the spring for project start dates in the late summer and early fall. Awards are made for projects with a one year duration but second year extensions are considered based upon the evidenced progress of the research and the potential of the research to yield proposals for external agency sponsorship.

Learn more at scialli.utk.edu.

CORPORATIONS & FOUNDATIONS

Research Initiatives

The Office of Research and Engagement is committed to identifying funding opportunities, sharing information relevant to eligible research scientists, and providing assistance as possible with proposal development and submission.

Special emphasis is placed on the awards that influence Center for Measuring University Performance (CMUP) and American Association of Universities (AAU) rankings. They are recognized as highly prestigious grant and fellowship programs, providing faculty awards that also advance UT's goal of becoming a Top 25 university. A full list of these awards are at research.utk.edu/funding/external/cmup-aau

Corporate & Foundation Engagement

CFE coordinates the University's industry and foundation relationships from one centralized office. This ORE-supported office provides a simplified approach for corporations and foundations to access faculty-led research and other campus resources. CFE strives to create and expand partnerships with industry and foundations by advancing common goals through collaborative sponsored projects, and identifying innovative solutions to grand challenges.

COMMUNICATIONS & PROFESSIONAL DEVELOPMENT

research@utk.edu

PROFESSIONAL DEVELOPMENT

Professional development is widely regarded as a cornerstone of academic pursuit for audiences in the student population preparing for professional life as well as in the form of continuing education at the staff and faculty level. Continued training can broaden experience and perspective; it also serves an invaluable purpose by connecting those pursuing it with opportunities for professional advancement. In the case of research, training is essential.

- Learn the ins and outs of compliance regulations and research ethics in advance of your study and ensure that your research is conducted with the utmost responsibility.
- Receive important knowledge regarding safety and approval for studies.
- Develop your writing and proposal development skills to have greater success obtaining grant funding.

ORE's professional development program is dedicated to providing accessible and comprehensive training opportunities that further the ethical, effective, and successful pursuit of academic research. To that end, ORE offers workshops that range from proposal development and grant writing to compliance topics. Workshops are available free of charge to faculty, staff, and graduate students who are responsible for or interested in funded research.

Workshops
ORE regularly offers workshops in these categories:

- Cayuse Research Suite
- Data management
- Early career
- Fellowships
- Funding
- IRB
- Targeted sponsor workshops
- Proposal development
- Responsible conduct of research
- Undergraduate research

Find a complete list of training opportunities on the ORE website: research.utk.edu/training-workshops.

Online Training Opportunities
ORE also offers online research ethics and compliance training through Collaborative Institutional Training Initiative (CITI). You can view instructions for registering and taking CITI training online at research.utk.edu/training-workshops/citi.

Benefits
Everyone benefits from clear, open communication, but we have listed some specific advantages for our campus populations:

Faculty
Has a new policy come out that impacts how you conduct your research, scholarship, and creative activities? Is there a workshop on how to engage with federal sponsors? Do you want to share collaborative opportunities with your peers? Have you or a colleague of yours been involved in impactful research or engagement endeavors? We can help.

Students

Graduate students can find training and funding opportunities available through ORE as well as an individual development plan. Undergraduates can find information on conducting research, poster presentations, unique funding opportunities, internships, and more.

Staff

Do you support researchers on campus? Are you looking for information on internal funding opportunities, how to find research assistants, or specific forms and policies? We can direct you to that information

COMMUNICATIONS AND MEDIA RELATIONS

The Office of Research and Engagement is committed to sharing information relevant to the UT research community. We do so on multiple platforms, knowing that not everyone consumes content in the same way.

Our goal is to share your victories with the university—awards you've won, successful research or engagement projects, and fruitful collaborations. The ORE communications team can also connect you with communications professionals in your college or department.

We have created avenues through which we can share information that may be of benefit to those conducting research at UT: funding opportunities, training and workshops on a variety of subjects, how to write a successful proposal, who to contact when you need a question answered right away.

LOOKING FOR MORE?

Send your suggestions for additional coverage or content to **research@utk.edu.**

Having difficulty finding information on one of our websites? Email the ORE webmaster at **research@utk.edu**

FOR MORE INFORMATION

The office of Research and Engagement offers several points of contact and communication for the University of Tennessee research community.

Websites
Office of Research & Engagement
research.utk.edu

Office of Sponsored Programs
osp.utk.edu

Office of Community
Engagement & Outreach
engagement.utk.edu

Office of Undergraduate Research
ugresearch.utk.edu

Pre-college Research
Excellence Programs
prep.utk.edu

Office of Research Integrity
research.utk.edu/compliance

Export Control
exportcontrol.utk.edu

Human Research Protection Program and
the Institutional Review Board (IRB)
irb.utk.edu

Science Alliance
scialli.utk.edu

Email the ORE webmaster research@utk.edu

Staff
Our greatest resource is our people. You can find expert assistance during any stage of your research, scholarship, and creative activities at
research.utk.edu/staff

Newsletters & Listservs
ORE currently publishes several digital newsletters. Each specializes in a unique area of service or an audience served by units within the office.

Catalyst: Biweekly newsletter from the Office of Research and Engagement.

Discovery: Monthly newsletter from the Office of Undergraduate Research.

Impact: Monthly newsletter from the Office of Community Engagement and Outreach.

Funding Opportunities Digest: A weekly digest from the Research Development unit.

Limited Submission Opportunity: Sent on an as-needed basis, when relevant opportunities become available.

UT NIH Research Community: Information related to all aspects of the NIH grant process.

RAOR: Updates from the Research Administrator OutReach (RAOR) forum presentations and discussions.

OSP: Updates on topics related to sponsored research.

UT Research Development Community Listserv: Updates from the Research Development unit.

Summer Research Scholars: Information for those who have or are looking for a summer research position.

Subscribe to our newsletters and listservs at **research.utk.edu/subscribe**