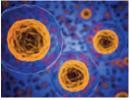


## DIVISION OF RESEARCH

The Division of Research at Texas A&M University aims to advance and strengthen all aspects of the research enterprise by leveraging research strengths, enhancing resources, fostering collaborations, increasing funding, promoting research integrity, and enhancing communication and visibility of research efforts.



### **DIVISION UNITS**

**Centers and Institutes** Organizes researchers to take on major challenges.

**Comparative Medicine Program** Offers high quality animal care at affordable cost.

**Core Facilities** Provides state-of-the-art instrumentation, technologies and specialized scientific services.

**Postdoctoral Affairs** Serves postdocs and the faculty who train them.

Research Communications and Public Relations

Delivers writing, editing, video, web and graphic services to the division and its units.

**Research Compliance and Biosafety** 

Provides guidance in biosafety, animal welfare and human research protection.

### **Research Development Services**

Offers no-cost consultation and training for developing proposals.

### Research Enterprise Business Services

Provides support to all division units.

### Research Security and Export Controls

Helps to safeguard integrity of research and scholarship.

**Special Strategic Projects** Assists with proposals aligned with division and university priorities.

**Sponsored Research Services** Works with researchers in the administration of funded projects.

**Strategic Initiatives** Coordinates cross-cutting initiatives to advance the research enterprise.



VICE PRESIDENT FOR RESEARCH **DR. JACK G. BALDAUF** 

**\$1.278**B

Fiscal year 2023 research expenditures

**#14** Among U.S. public instutions in the

National Science Foundation's most recent Higher Education Research and Development Survey (Based on total research expenditures of \$1.153 billion for fiscal year 2022)

> 1 of 24 Land-, sea-, and space-grant universities

**1**<sup>of</sup>**69** 

Association of American Universities members

To hold the designation as **both** land-, sea-, and space-grant university **and** Association of American Universities member

### OVERSIGHT AND EVALUATION



- ► Institutional Animal Care and Use Committee (IACUC) animalcompliance@tamu.edu
- Institutional Biosafety Committee (IBC) ibc@tamu.edu
- Institutional Review Board (IRB) irc@tamu.edu

### **DIVISION CENTERS AND INSTITUTES**

Bringing together scholars and scientists to tackle major research challenges.

**Comparative Medicine Program** Provides high-quality animal care at affordable costs.

Hagler Institute for Advanced Study Acts as a catalyst to enrich the intellectual climate.

High Performance Research Computing Provides computing resources

for cutting-edge research.

International Ocean Discovery Program Manages science operations, archives data and publishes findings.

#### **Microscopy and Imaging Center**

Offers cutting-edge technologies for life and physical sciences.

**Private Enterprise Research Center** Analyzes policy issues and supports academic research.

**Texas A&M Energy Institute** Advances multidisciplinary energy research and partnerships.

### vpr.tamu.edu/centers-and-institutes

### **CORE FACILITIES**

Core facilities provide essential resources for groundbreaking research. These fall under six thematic categories:

**Environmental and Chemical Sciences** State-of-the art sample collection and analysis

**Data Informatics and Computation** Computational hardware, software and expertise across the data sciences

**Microscopy and Imaging** Advanced techniques for visualizing everything from molecules to entire animals



vpr.tamu.edu/core-facilities

Texas A&M Global Cyber Research Institute Coordinates information security and cyber defense programs.

**Texas A&M Institute of Data Science** Takes novel approaches to research and partnerships.

Texas A&M Institute for a Disaster Resilient Texas Conducts research on disaster risk reduction.

Texas A&M Institute for Genome Sciences and Society Unites genome scientists with social researchers.

Texas A&M Institute for Neuroscience Strengthens interdisciplinary and collaborative research.

**Texas Real Estate Research Center** Studies real estate financial, socioeconomic and policy issues.

**Texas Sea Grant College Program** Supports programs along the Gulf Coast.

### Genomics, Sequencing and Flow

Services in flow cytometry and high throughput as well as DNA, RNA and computational technologies

Materials Characterization and Fabrication Synthesis and characterization of

materials like polymers, metals and ceramics

Animal Care and Behavior High-quality supply, housing and care of laboratory animals along with specialized rodent services





### **INTERNAL FUNDING PROGRAMS**

► Arts and Humanities Fellows Program: Recognizes extraordinary scholarship and creativity among Texas A&M faculty members engaged in the humanities or the creative arts. *vpr.tamu.edu/arts-humanities-fellows* 

 ASCEND (Advancing Scholarly Contributions and Engagement in New Directions): Includes Research Leadership
 Fellowships (RLF) to develop junior faculty into research leaders and Targeted Proposal
 Teams (TPT) to grow new interdisciplinary
 research collaborations.
 vpr.tamu.edu/ascend

 PRISE (Program to Recognize and Incentivize Scholarly Excellence):
 Promotes collaboration between
 Texas A&M and Prairie View A&M University faculty to pursue multidisciplinary research and innovation projects.
 vpr.tamu.edu/panther-rise

► **RDF (Research Development Fund):** Provides funding for strategic investments that support the Texas A&M research enterprise and catalyze new ventures. *rdf.tamu.edu* 

### **STAY INFORMED**

▶ **vpr.tamu.edu**: Serves as a comprehensive resource for information on research policies, funding opportunities, compliance, strategic initiatives and research-support services at Texas A&M.

▶ **Research @ Texas A&M:** Showcases research stories and advances. *research.tamu.edu* 

▶ **Research Bulletin:** Highlights recent research news and achievements.

▶ **Research Digest:** Collects and distributes vital information to all Texas A&M researchers.

Texas A&M Division of Research Interdisciplinary Life Sciences Building 301 Old Main Drive / College Station, Texas 77843-1112 1112 TAMU / 979.845.8585



TEXAS A&M UNIVERSITY Division of Research

### vpr.tamu.edu

### TEXAS A&M UNIVERSITY RESEARCH ENTERPRISE

Texas A&M University is one of the world's leading research institutions, dedicated to advancing knowledge and serving the public good. As a land-grant-, sea-grant and space-grant university, Texas A&M engages in research that spans multiple disciplines and addresses global challenges.

### **RESEARCH ENTERPRISE STRATEGIC PLAN**

▶ Outlines the strategic direction and key priorities for Texas A&M's research activities from 2023 to 2030.

► Focuses on enhancing research infrastructure, fostering interdisciplinary collaborations, promoting innovation and increasing research funding.

► Identifies six strategic research themes including 21 sub-themes identified for specific focus areas within each strategic research theme.



Community, Culture and Economic Resilience



National Security



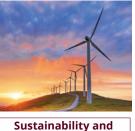
Emerging Technologies and Innovations



Health and Quality of Life



Space Exploration



Environment

### **KEY INITIATIVES AND PROGRAM**

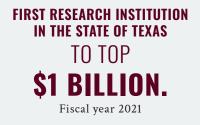
**Chancellor's Research Initiative (CRI)** Designed to attract and retain world-class faculty by providing funding for research infrastructure and support.

### Governor's University Research Initiative (GURI)

State-funded initiative aimed at recruiting nationally recognized researchers to Texas universities.



RESEARCH EXPENDITURES AND RANKINGS



Fiscal year 2023 research expenditures

### #14

Among U.S. public instutions in the National Science Foundation's most recent Higher Education Research and Development Survey

(Based on total research expenditures of \$1.153 billion for fiscal year 2022)

### RESEARCH ENTERPRISE AT A GLANCE



### **CORE FACILITIES**

► More than 50 core facilities providing access to specialized instruments, technologies, and services.

► Categories include chemical science technologies, data information and computation, integrated biological and medical translation, materials and fabrication, microscopy and imaging.

### **CENTERS AND INSTITUTES**

More than 130 centers and institutes tackling major research challenges in areas such as climate, environment, computation, education, energy, food and water, global health, infrastructure, materials, manufacturing and public policy.

### **PARTNER STATE AGENCIES**

► **Texas A&M AgriLife Research:** Conducts agricultural research to improve agriculture in Texas and beyond.

► Texas A&M Engineering Experiment Station: Engages in engineering research and development to address critical state and national challenges.

► Texas A&M Transportation Institute: Conducts research to improve the safety, efficiency and sustainability of transportation systems.



### **RESEARCH IN COLLEGES AND SCHOOLS**

### College of Agriculture and Life

**Sciences:** Addresses food security, sustainable agriculture, environmental stewardship and other global issues.

**School of Architecture:** Engages in urban planning, design, sustainability and the built environment.

### **College of Arts and Sciences:**

Conducts research across humanities, social sciences, natural sciences and mathematics, fostering interdisciplinary collaborations.

**Mays Business School:** Specializes business administration, management, finance, marketing and entrepreneurship.

**School of Dentistry:** Advances dental sciences, oral health and craniofacial biology.

School of Education and Human Development: Focuses on educational research, human development, learning sciences and educational policy.

**College of Engineering:** Engages in cutting-edge research in aerospace, biomedical, chemical, civil, computer, electrical, industrial, mechanical, nuclear and petroleum engineering.

**School of Engineering Medicine:** Integrates engineering with medical sciences to innovate in healthcare technology and medical research. **Bush School of Government and Public Service**: Conducts research on public policy, administration, international affairs and public service.

**School of Law:** Addresses constitutional law, environmental law, intellectual property and international law.

**School of Medicine:** Advances neuroscience, infectious diseases, cancer and cardiovascular health.

**School of Nursing:** Engages in research on nursing practices, healthcare delivery, patient outcomes and public health.

### School of Performance, Visualization and Fine Arts: Specializes in performance studies, visual arts, digital media and creative technologies.

Irma Lerma Rangel School of Pharmacy: Conducts research in pharmaceutical sciences, drug development, pharmacology and clinical pharmacy.

**School of Public Health:** Focuses on public health research, epidemiology, health policy, environmental health and health behavior.

School of Veterinary Medicine and Biomedical Sciences: Advances veterinary sciences, animal health, biomedical sciences and translational medicine.

### FACULTY AWARDS AND RECOGNITION

- **33** National Academy of Engineering Members
- **17** National Academy of Sciences Members
- 6 National Academy of Medicine Members
- **3** Nobel Prize Laureates
- 2 Wolf Prize Recipients

Source: Faculty Affairs

Texas A&M Division of Research

Interdisciplinary Life Sciences Building 301 Old Main Drive / College Station, Texas 77843-1112 1112 TAMU / 979.845.8585

- **16** American Academy of Arts & Sciences Members
- **85** American Association for the Advancement of Science Fellows
- 8 American Academy of Nursing Fellows
- **18** National Academy of Inventors Fellows





TEXAS A&M UNIVERSITY Division of Research

### vpr.tamu.edu

INITION



### **HAGLER INSTITUTE** *for Advanced Study*

The Hagler Institute brings world-class scholars—Hagler Fellows—to take residence at Texas A&M University for up to twelve months. These scholars collaborate with A&M faculty and graduate students to solve some of the world's toughest problems. Their presentations inspire undergraduate students and help demonstrate achievements.

The Hagler Institute is a mechanism for attracting world-class talent to the university and is driven by nominations of national academy and Nobel-prize caliber researchers that align with existing strengths and ambitions

### HAGLER FELLOWS SELECT MEMBERSHIPS AND ACCOLADES

6	Nobel Prize
34	National Academy of Sciences
<b>41</b>	National Academy of Engineering
<i>40</i>	International Academies
12	National Academy of Medicine
2	Wolf Prize
1	National Medal of Technology and Innovation
1	Hubbell Medal in Literary Scholarship
1	National Medal of Science
1	National Humanities Medal

of the university. Each year the Hagler Institute invites a number of nationally and internationally prominent fellows to pursue advanced study at the Hagler Institute in collaboration with faculty and student scholars at Texas A&M. The goal is to provide a stellar environment for research and scholarship with the Hagler Fellows having freedom to pursue their own research interests, as well as collaborate in disciplinary and multidisciplinary research. Each fellow affiliates with one or more of the doctoral degree granting academic departments housed in 16 colleges and schools. Additional resources provide Texas A&M fellowships for graduate students, as well as funding for visiting graduate students and postdoctoral researchers affiliated with the fellows.

Through the recruitment of its fellows, The Hagler Institute for Advanced Study raises the profile of Texas A&M nationally and worldwide—and plays a significant role in retaining outstanding faculty-researchers and recruiting quality faculty members and students.

Now a permanent feature at Texas A&M, the Hagler Institute is a key component of the university's strategy to advance its academic evolution and to emerge as one of the ten universities that are generally regarded as the best in the United States. The institute strengthens A&M's graduate programs and enriches the undergraduate academic





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8th Floor, Rudder Tower 3572 TAMU College Station, Texas 77843-3572 979.458.4989





hias.tamu.edu

HAGLER Fellows

IN ITS FIRST TWELVE YEARS, THE HAGLER INSTITUTE FOR ADVANCED STUDY HAS BROUGHT ONE HUNDRED AND SIXTEEN FELLOWS TO TEXAS A&M UNIVERSITY.

experience by bringing students at all levels into direct contact and collaboration with Hagler Fellows. That connection has a longterm impact on the quality of the students who choose to attend Texas A&M. Because the finest students want the finest education, their choice of schools may be influenced by the objectives and proven success of the Hagler Institute.

The institute serves every college and school at Texas A&M, including the Galveston campus and the School of Law in Fort Worth, as well as several key institutes. The affiliations between the Hagler Fellows and the university's colleges and schools are determined by nominations, which originate with our faculty and college deans. Those nominations are strictly confidential. Nominees are evaluated by a

### HAGLER FELLOWS | FY 2013-2023

revolving panel of University Distinguished Professors. To be approved for recruitment, nominees must meet the highest standards of accomplishment in their professions, hold national academy or equivalent stature, and produce top-quality work as scholars and mentors. The time in residence at Texas A&M is flexible, with many Hagler Fellows choosing to spread their work at Texas A&M over multiple years, ensuring long-term collaboration.

Great universities such as Texas A&M require the constant renewal and integration of exceptional scholars and researchers with an extraordinary existing faculty. The Hagler Institute is designed with that premise clearly in mind. The institute's world-class scholars have an immeasurable impact on our faculty, students, and reputation. In addition, the Hagler Fellows are energized by the flexible structure of the Institute and by their ability to team with enthusiastic faculty and exceptional students. The Hagler Institute has demonstrated a proven, affordable formula for advancing Texas A&M.



### ABOUT JON L. HAGLER '58

Jon L. Hagler is a recognized leader in investment management as well as philanthropy. He and wife Jo Ann founded the Jon L. Hagler Foundation—a private foundation that has served as a longtime financial supporter of Texas A&M. He is highly regarded and respected at the university for his leadership and contributions that have spanned decades.

Texas A&M recognized Hagler with an honorary doctorate in 2015 and with the 2005 Sterling C. Evans Medal for his dedication to philanthropy. He was named a Texas A&M Distinguished Alumnus in 1999 and is a past member of The Association of Former Students' Board of Directors.

Hagler received his bachelor's degree in agricultural economics from Texas A&M and earned an MBA from Harvard University in 1963.





### High Performance RESEARCH COMPUTING

HPRC is a dedicated computing resource used for cutting-edge, collaborative, and transformative research and discovery at Texas A&M University.

### ADMINISTERS 5 CLUSTERS

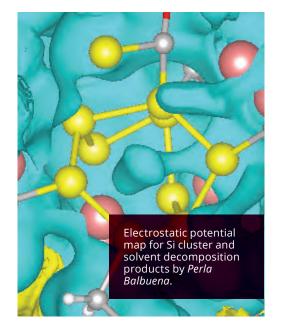
TOTAL PEAK PERFORMANCE WITH 18 PB OF HIGH-PERFORMANCE STORAGE

### A DEDICATED RESOURCE For Research and Discovery

Since 1989, the High Performance Research Computing (HPRC) has been a dedicated resource for research and discovery at Texas A&M. HPRC, formerly known as the Supercomputing Facility, has been transformed from a mere service facility to an interdisciplinary research center advancing computational and data-enabled science and engineering with a broad mission for advancing research, education, outreach, training and service since January 2016. HPRC supports more than 3000 users, including more than 500 faculty members. HPRC resources are used for cutting-edge, collaborative, and transformative research including, but not limited to, AI/ ML, materials and drugs development, quantum computing and optimization, climate prediction and resilience. HPRC promotes advanced computing and emerging technologies to researchers and assists users in using them for research and discovery.

### HPRC HARDWARE, SOFTWARE, AND TRAINING RESOURCES

New users can apply for accounts at *hprc.tamu.edu*. The website offers training and documentation for HPRC systems and software. HPRC provides a broad range of regularly scheduled training sessions and workshops for our users. These sessions may be included in formal classes that have a technical and scientific computing focus. HPRC also hosts the Summer Computing Academy to promote computing among middle and high school students.



### SUPPORTS MORE THAN

**BUDDE** USERS, INCLUDING 500 FACULTY MEMBERS

### CONTACTS

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FRANCIS DANG

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### DHRUVA CHAKRAVORTY

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### LISA M. PÉREZ

Director for Advanced Computing Enablement perez@tamu.edu

### **MARINUS PENNINGS**

Associate Director for User Support and Helpdesk pennings@tamu.edu



hprc.tamu.edu

### **RESOURCES AVAILABLE**

#### GRACE

Grace is the university's flagship supercomputer, a heterogeneous HPC cluster. The Grace cluster is composed of 800 regular



compute nodes, 100 A100 GPU compute nodes, 15 A40 GPU compute nodes, 17 single precision T4/RTX6000 GPU compute nodes, 8 large memory (3 TB) compute nodes, 5 login nodes, and 6 management servers. The Grace cluster has an HDR 3:1 InfiniBand interconnect and 5+ PB of usable high-performance storage running Lustre parallel filesystem.

#### ACES

Accelerating Computing for Emerging Sciences (ACES)

is a dynamically composable high-performance data analysis and computing platform funded by NSF. Ninety percent of ACES resources is made



available to national research community via NSF ACCESS program. ACES leverage Liqid's composable framework on Intel's Sapphire Rapid processors to offer a rich of accelerators testbed containing Intel Ponte Vecchio GPUs (Graphics Processing Units), NVIDIA H100 GPUs, Intel FPGAs (Field Programmable Gate Arrays), NEC Vector Engines, NextSilicon co-processors, Graphcore IPUs (Intelligence Processing Units) coupled with Intel Optane memory and DDN Lustre storage interconnected with Mellanox NDR 400Gbps (gigabit-per second) InfiniBand to support workflows that benefit from optimized devices. ACES allows researchers to creatively develop new programming models and workflows that utilize these architectures while simultaneously advancing HPC, Artificial Intelligence(AI), and data science projects. ACES is available to the national research community and Texas A&M researchers now.

#### LONESTAR

Lonestar-6, a Lonestar cluster hosted at the Texas Advanced Computing Center at The University of Texas at Austin, employs Dell Servers with AMD's EPYC Milan processor,



Mellanox's HDR Infiniband technology, and 8 PB of BeeGFS based storage on Dell storage hardware. Total of 74,368 core with a peak performance of 5TFlops per compute node. Jointly funded by The University of Texas System, Texas A&M University, Texas

### **UPCOMING SYSTEMS**

### ViDAL 2.0

An 18-node, 2304-core secure and compliant computing environment supports data intensive research using sensitive person level data or proprietary licensed data to meet the myriad legal requirements of handling such data (e.g., HIPAA, PHI, Texas HB 300, NDA). It has 10 compute nodes with 384 GB Ram each, 4 large memory nodes with 3.0 TB Ram each, and 4 GPU nodes with 384 GB Ram and two NVIDIA H100 94GB HBM3 GPUs each. Each compute node has 2 64-core AMD EPYC 2.45GHz processors. It has 3PB usable high performance IBM ESS storage. ViDAL 2.0 is funded by Texas A&M Health Science Center and Texas A&M Research Development Fund (RDF) and will replace ViDAL in fall 2024.

3361 TAMU College Station, Texas 77843-3361 help@hprc.tamu.edu 979.845.0219 *Located on the College Station campus:* 114A Henderson Hall 222 Jones St. (Behind the ILSB)

Tech University, and the University of North Texas, Lonestar provides additional resources to Texas A&M researchers. Allocation requests are made through the HPRC request page.

### FASTER

FASTER (Fostering Accelerated Scientific Transformations, Education, and Research) is a novel composable high-



performance data-analysis and computing instrument funded by the NSF MRI program. FASTER adopts the innovative Liqid composable software-hardware approach combined with cutting-edge technologies such as Intel Ice Lake 32-core 2.2GHz CPUs, NVIDIA A100/A40/A30/A10/T4 GPUs, NVMe based storage, and high-speed Infiniband HDR interconnect. FASTER is a 184-node cluster built by Dell and has 40 A100, 200 T4, 8 A40, 8 A10, and 4 A30 GPUs. Each compute node can compose more than 16 GPUs of various types via Liqid PCIe fabrics. The FASTER platform removes significant bottlenecks in research computing by leveraging composable technology that can dynamically integrate disaggregated GPUs to a single node, allowing HPC/AI workflows to flexibly choose the type and number of GPUs to fit their needs. Thirty percent of FASTER's computing resources are allocated to researchers nationwide by NSF ACCESS program. FASTER is in production and open to NSF ACCESS and Texas A&M users.

### ViDAL

A 24-node secure and compliant computing environment supports data intensive research using sensitive person level



data or proprietary licensed data to meet the myriad legal requirements of handling such data (e.g., HIPAA, Texas HB 300, NDA). It has 16 compute nodes with 192 GB Ram each and 4 large memory nodes with 1.5 TB Ram each, and 4 GPU nodes with 192 GB Ram and two NVIDIA V100 GPUs each.

### LAUNCH

The LAUNCH is a regional computing cluster funded by NSF CC\* program to mainly support TAMU System researchers. It is composed of 35 compute nodes and 10 GPU nodes. The compute nodes feature 2 AMD EPYC 2.40 GHz processors with 96 cores each and 384GB of DDR5 memory. The GPU nodes feature 2 NVIDIA A30 GPUs each, 2 AMD EPYC 2.40 GHz processors with 96 cores each, and 768GB of DDR5 memory. The system uses an HDR100 GB Infiniband interconnect.



### ADVANCED SUPPORT Program (ASP)

HPRC provides technical assistance to research teams across campus that goes beyond general consulting.

HPRC offers collaborations in research projects with a large computational component. Under the ASP, one or more HPRC analysts will contribute expertise and experience in several areas of high performance computing.

### OUR COLLABORATIVE CONTRIBUTIONS INCLUDE:

- porting applications to our clusters
- analyzing and optimizing code performance
- developing parallel code from serial versions and analyzing performance
- bioinformatics and genomics
- optimizing serial and parallel
  I/O code performance
- optimal use of mathematical libraries
- code development and design

### **MICROSCOPY** and Imaging Center

The Microscopy and Imaging Center (MIC) supports research and education by providing current and cutting-edge technologies in microscopy and related imaging for the life and physical sciences on the Texas A&M University campus and beyond.



### ABOUT the CENTER

The MIC develops emerging technologies, like super-resolution light microscopy and offers "cool" imaging by ultrafast-freezing samples at thousands of degrees per second to prevent ice crystal formation and focused ion beam for fast, precise milling of frozen samples with cryo lift out capability aiding in 3D electron tomography. The MIC offers expertise and techniques in sample preparation, in situ elemental/ molecular analyses, high-resolution imaging using light- and electron-enabled methods -of crystalline and amorphous specimens, surface and cross-sectional analyses, 3-D structure determination by single particle-based algorithms and tomographic methods, as well as digital image analysis and processing. The Center promotes cutting-edge research in basic and applied sciences through research and development activities, as well as quality training and education through individual training, short courses, workshops and formal courses that offer credit.

The Center's outreach activities extend deep into the Bryan/College Station community, and the Center has acquired aficionados from K-12 to postdoctoral fellows and faculty.

### LAWRENCE GRIFFING

Director griffing@tamu.edu 979.845.6493

### **AVERY MCINTOSH**

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microscopy.tamu.edu Produced by Research Communications 7/2024

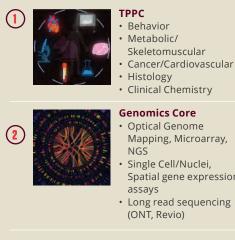


### Texas A&M Institute for **GENOME SCIENCES AND SOCIETY**

An innovative program that has the potential to vastly improve the lives of humans and animals and to advance agricultural productivity by leveraging one of Texas A&M's strengths: collaboration by outstanding faculty, students and staff from several disciplines to address real-world issues.

The Texas A&M Institute for Genome Sciences and Society (TIGSS) functions as a virtual institute to unite and support scientists and trainees with cutting-edge core facilities supporting life sciences and biomedical research technologies to improve human, animal and environmental well-being.

### LET US HELP YOU MAKE YOUR RESEARCH AS EASY AS 1, 2, 3.



- **Optical Genome** Mapping, Microarray,
- Single Cell/Nuclei, Spatial gene expression
- Long read sequencing

### **Bioinformatics**

Bulk, single-cell, and spatial RNA-seq data analysis Genome assembly and

annotation; variant calling Metagenomic and metabarcoding data analysis

### TIGSS CORE FACILITIES:

- Texas A&M Preclinical Phenotyping Core (TPPC) houses various instruments to measure and quantitate animal physiology and behavior. Our team can help guide you at every step in your translational research. At the planning stages, we provide consulting to determine the optimal molecular, physiological and behavioral assays to address your research goals. We maintain a wide suite of equipment supporting metabolic, immune, skeletomuscular, cancer, cardiovascular, inhalation toxicology and behavioral assays for detailed phenotyping of mouse models. The TPPC houses 30+ state-of-the-art equipment for all your post-genomic research needs.
- Genomics Core offers a wide array of services, including DNA/RNA analysis, tissuelevel and single cell/nuclei resolution Next Generation Sequencing Services, Optical Genome Mapping and Microarry analysis. Additionally, we provide expert consultation to assist with experimental design and offer training for those interested in learning more about NGS methods. Our facility is equipped with over 25 cutting-edge instruments, ready to support your research needs.

### **Bioinformatics**

TIGSS' bioinformatics Research Scientists provide consulting services for institutional, clinical and commercial clients for a wide variety of gene expression and genomics applications. Gold-standard open-source software is used to develop custom analysis pipelines. Guidance is available from experimental design all the way through the creation of publication-quality figures.

### WHAT'S NEW:



Whole-Body Inhalation Chambers



**10x Genomics CytAssist** 



**Single Cell Analysis** 



CONTACT Jeffrey Cirillo, Ph.D. Director tiggs@tamu.edu 979. 574 4978



Institute for Genome Services and Society

### genomics.tamu.edu

## Texas A&M University OFFICE OF POSTDOCTORAL AFFAIRS

The Texas A&M Office of Postdoctoral Affairs (OPA) serves and advocates for postdoctoral researchers and the faculty who train them. Texas A&M University trains more than 600 postdoctoral scholars who are performing research in diverse fields ranging from engineering to medicine to humanities.

### NEW POSTDOCTORAL ORIENTATION

Texas A&M OPA provides an orientation workshop for the university's postdoctoral scholars every fall and spring semester.

### PROFESSIONAL DEVELOPMENT WORKSHOPS

Offered monthly, these intensive and interactive courses are geared towards facilitating core competencies established by the National Postdoctoral Association. Each features strategic topics for the professional development of postdoctoral scholars:

- Career Development Series: Focuses on topics relevant to building a career in an academic or non-academic environment.
- Teaching Workshop Series: Focuses on topics relevant to building a career in teaching.
- Mentoring Workshop Series: Applies evidence-based instruction to help postdoctoral scholars learn the skills necessary to become productive mentees as well as mentors to undergraduate and graduate students in their labs.

- Postdoctoral Affairs Series: Focuses on the common needs of postdoctoral fellows, such as maintaining wellness and managing visas.
- Postdoctoral Mentoring Academy: An interactive workshop that provides training on evidence-based mentorship competencies.
- Individual Development
  Plan Workshop:
  Details a planning process that identifies professional development

needs and career objectives.

### POSTDOCTORAL Handbook

A useful resource on a variety of topics, from your first day at Texas A&M to living in Bryan-College Station area. https://u.tamu.edu/Postdoctoral-Handbook

### POSTDOCTORAL SCHOLAR TRAVEL AWARD

The Texas A&M Office of Postdoctoral Affairs offers up to five travel awards of \$500 twice a year. https://u.tamu.edu/Postdoc-TravelAwards



### ANNUAL POSTDOCTORAL RESEARCH SYMPOSIUM

This event showcases the postdoctoral scholars' contribution to the research enterprise at Texas A&M. https://u.tamu.edu/Postdoc-Symposium

### RESOURCES

Calendar: https://u.tamu.edu/PDA-Calendar Listserv: https://u.tamu.edu/PDAlistserv

### **ANDREEA TRACHE**

*Faculty Fellow* trache@tamu.edu

### SHANNON EYRE

Sr. Administrative Coordinator seyre@tamu.edu



vpr.tamu.edu/opa



### TEXAS A&M POSTDOCTORAL Association (Texas A&M PDA)

Texas A&M PDA fosters a sense of community among postdoctoral scholars, serving as an advocate for the postdoctoral scholars, and working to improve the quality of the postdoctoral experience at Texas A&M.

The association works closely with the Office of Postdoctoral Affairs to develop their professional development programming. It also provides opportunities for networking throughout the year.

#### Contact

Texas A&M PDA Executive Committee pda@tamu.edu

Website: https://u.tamu.edu/TAMU-PDA Facebook: facebook.com/TAMUPostdocs LinkedIn: linkedin.com/groups/14423239 Twitter: twitter.com/tamu\_pda Instagram: instagram.com/tamu\_pda

### INSTITUTE OF BIOSCIENCES AND TECHNOLOGY (IBT) POSTDOCTORAL Association, houston

The IBT Postdoctoral Association enhances the postdoctoral experience at the IBT, advocates for postdocs, and fosters a sense of community among postdoctoral fellows.

### Workshops

The association's postdoctoral training program provides a world class, multidisciplinary experience through cutting-edge translational and fundamental research; commercialization of research; and professional development.

#### Contact

Chetna Dureja, President *chetnadureja@exchange.tamu.edu* Website:

ibt. tamu. edu/education/postdoctoral-association

### POSTDOCTORAL ASSOCIATION OF CHEMISTRY (PAC)

The PAC in the Department of Chemistry provides postdoctoral research associates with professional career development and training as well as support for family-work life. The mission of the PAC is to improve the quality of the postdoctoral experience and to facilitate the long-term success of its members. The PAC hosts professional development seminars and other events.

### Workshops

The PAC offers a variety of workshops on relevant topics to postdoctoral trainees. Some examples are scientific writing, grantsmanship, public speaking and communication, and job seeking.

Website: chem.tamu.edu/pac/index.php

### SCHOOL OF VETERINARY MEDICINE & BIOMEDICAL SCIENCES (VMBS) Postdoctoral association

The mission of the School's Postdoctoral Association is to facilitate across-the-board improvement in the daily professional lives of all our constituent members. VMBS PDA strives to maintain excellence in our postdoctoral community by providing various professional development and networking opportunities which aim at enhancing professional growth, community building and collaborations and positive change.

### Workshops

The School's Office of Research and Graduate Studies regularly offers a variety of impactful workshops specifically designed to develop the professional and academic skills of our postdoctoral trainees, such as scientific writing, grantsmanship, public speaking, and communication and conflict management. In addition, monthly VMBS PDA meetings include presentations from outstanding scientists and researchers on topics relevant to postdoctoral trainees.

### **Postdoctoral Travel Awards**

The VMBS PDA twice yearly provides significant support to its qualifying members by offering a substantial number of travel awards for professional development. All received applications are evaluated based upon scientific merit, innovation and contribution to the field.

### Contact

Eleni Vonda, Program Manager evonda@tamu.edu • 979.845.1036 Website: vetmed.tamu.edu/pda

### SCHOOL OF MEDICINE OFFICE OF Postdoctoral Affairs

The School of Medicine Office of Postdoctoral Affairs provides support for and enhances the training and development of postdoctoral researchers. The office delivers professional and career development programming for postdocs across the Health Science Center such as: postdoctoral orientation, workshops and seminars, scientific writing courses, and Aggie F Boot Camp (fellowship application course).

### Texas A&M Health Postdoctoral Association (HSC-PDA)

The HSC-PDA improves the quality of the postdoctoral experience and facilitates the long-term success of its members. The HSC- PDA hosts monthly professional development seminars and other events

### **Postdoctoral Awards**

The HSC-PDA offers two \$500 merit-based travel awards and one \$500 professional development award twice a year to qualifying postdoctoral scholars. See more at *medicine.tamu.edu/postdoc* 

### Contact

Stacy De Leon, Associate Director *s-deleon@tamu.edu* • 979.436.0204

Website: medicine.tamu.edu/research/postdoc Instagram: instagram.com/tamuhealthpostdoc Medicine Facebook page: facebook.com/tamumedicinepostdoctoralaffairs HSC-PDA Facebook page: facebook.com/ TAMU.Health.PDA Calendar: tinyurl.com/postdoccalendar



## Texas A&M University **RESEARCH COMPLIANCE** and **BIOSAFETY**

Texas A&M University is committed to promoting and ensuring the highest standards of research integrity in proposing, conducting and reporting research and to promoting and facilitating safe, ethical and scholarly activity that reflects the university's mission. To accomplish this, the research compliance and biosafety team works to build and maintain strong working relationships with those they serve, and others, to ensure compliance with federal, state and institutional requirements.

### HUMAN RESEARCH Protection program

The Human Research Protection Program (HRPP) is a resource for participants and investigators involved with human subjects research at Texas A&M. The HRPP provides support to the Institutional Review Boards (IRB), education and outreach to the research community, and informs institutional requirements on human research protections. Federal regulations and institutional requirements state that any human subjects research conducted by agents of Texas A&M, including faculty, staff or students, be submitted to the Texas A&M IRB, including studies reviewed by external IRBs prior to being initiated. A sample of common research activities that require submission to the IRB are listed on SOP HRP-093.

Toolkit-Research Compliance and Biosafety

HRP-093 - SOP - Activities that Required IRB Review 5.1.2022 Additional information and guidance for conducting human subjects research can be found in University Rule 15.99.01.M1 Human Subjects in Research at *rules-saps.tamu.edu/PDFs/15.99.01.M1.pdf* and the HRPP website at *vpr.tamu.edu/humans* 

### **BIOSAFETY PROGRAM**

All research, teaching and testing activities conducted by Texas A&M faculty, staff or students, involving any of the agents/ materials listed below, must be approved by the Texas A&M Institutional Biosafety Committee (IBC) prior to initiation:

- Pathogens and potential pathogens of humans, animals or plants;
- Materials potentially containing human pathogens including human and non-human primate blood, tissue, cell lines and body fluids;
- Recombinant and synthetic nucleic acids, including creation or use of transgenic plants, animals and microbes;



Toxins of biological origin; and

Select agents and toxins including strains and amounts exempted from the select agent regulations.

Additional information may be found in University Rule 15.99.07.M1, the Texas A&M Biosafety Manual, and the Biosafety website at *u.tamu.edu/tamu\_biosafety\_manual* 

vpr.tamu.edu/biohazards-in-research-teachingor-testing

### **PROGRAM CONTACTS**

Human Research Protection Program irb@tamu.edu • 979.458.4067

*Biosafety* ibc@tamu.edu • biosafety@tamu.edu 979.862.4549

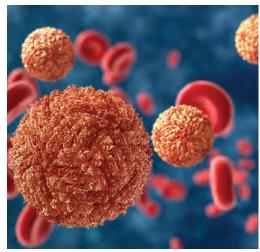
Biosafety Occupational Health Program bohp@tamu.edu • 979.845.6649

Animal Welfare Office animalcompliance@tamu.edu\_ 979.845.1828



rcb.tamu.edu





### BIOSAFETY OCCUPATIONAL Health program

The Texas A&M Biosafety Occupational Health Program (BOHP) coordinates occupational health services for personnel who participate in activities with biohazards and/or animals that fall under the oversight of the Institutional Biosafety Committee (IBC), Institutional Animal Care and Use Committee (IACUC), as well as those who work in university facilities where animals are treated or housed and in studies occurring with wild species in their natural habitat. These services include risk assessment, access to pre-exposure prophylaxis and mitigations, post-exposure incident response, and access to an occupational health provider. *vpr.tamu.edu/bohp* 

### **ANIMAL WELFARE OFFICE**

Texas A&M has established an Institutional Animal Care and Use Committee (IACUC) that meets all federal requirements, as defined in the Animal Welfare Act (AWA) and the Public Health Service Policy (PHS) on Humane Care and Use of Laboratory Animals, as well as the Guide for the Care and Use of Agricultural Animals in Research and Teaching (Ag Guide). The Animal Welfare Office serves as the liaison between the IACUC and the research community and manages the compliance component of the animal welfare program.

The IACUC is responsible for the oversight, evaluation, and assurance of compliance for the institution's animal care and use program as outlined in the PHS Assurance, AWA, the Guide for the Care and Use of Laboratory Animals and the Ag Guide. The IACUC serves Texas A&M employees as well as employees from other A&M System members. Clinical research conducted in the School of Veterinary Medicine & Biomedical Sciences using client-owned animals must be approved by the Clinical Research Review Committee (CRRC) and the IACUC. Individuals who work with animals or are at risk from animal exposure must be enrolled in a Biosafety Occupational Health Program and informed of the risks associated with animal exposure.

Additional information may be found in University Rule 15.99.07.M1 Use of Vertebrate Animals at rules-saps.tamu.edu/ PDFs/15.99.07.M1.pdf and on the AWO website at rcb.tamu.edu/animals.





### **RCB** Toolkit

Visit the RCB Toolkit page for updated links to Research Roadmaps as well as the online submission systems used by the Research Compliance Committees. u.tamu.edu/RCBtoolkit

For online submission or technical assistance: outreachrcb@tamu.edu 979.845.4969

### Texas A&M University **RESEARCH DEVELOPMENT** Services

### **RESEARCH CAPACITY BUILDING**

The Research Capacity Building Team focuses on Early Career Faculty and Special Strategic Priorities by providing proposal support to help faculty navigate today's challenging federal research funding landscape and prepare competitive grant proposals, including:

### FACULTY PROFESSIONAL DEVELOPMENT CALENDAR 2024-25

(including workshops, seminars, discussion lunches, working sessions and a writing group)

### 2024

### AUGUST

 Getting to Know the National Science Foundation (NSF)

#### **SEPTEMBER**

- ► NSF Supporting Documents
- Department of Energy Early Career Research Program

### **OCTOBER**

- CAREER: Introduction of the NSF CAREER Program
- Broader Impacts 101

### **ON-LINE RESOURCES AVAILABLE:**

 NIH Grantwriting Training (14 courses) (Bouvier Grant Group): https://bouviergrant.com/NIHLibrary/ TAMU2020



For Special Strategic Projects CONTACT JORJA KIMBALL, Ph.D. Executive Director jkimball@tamu.edu

### NOVEMBER

- Write Winning NIH Grant Proposals
- CAREER: Timeline, Strategies and Long-Term Goals for Developing a CAREER Proposal
- Owning Your Broader Impacts

### DECEMBER

 CAREER: Proposal Project Description

### 2025

### **JANUARY**

- Introduction to Young Investigator Programs and Faculty Fellowships
- Broader Impacts 101

#### **FEBRUARY**

- CAREER: Writing Groups Kick-Off
- Writing Successful Proposals
- Education and Outreach Expo

- workshops and seminars
- one-on-one consultations
  - strategic proposal review

### MARCH

- CAREER: Structuring and Formatting Proposals for Reviewers and the Project Summary
- CAREER: The Education Plan

### <u>APRIL</u>

- CAREER: Project Summary Feedback
- Broader Research Impacts at All Federal Agencies

#### Check out our website for registration and more details: u.tamu.edu/RDScalendar



 NIH R-series, NSF CAREER, Grant Essentials (11 courses) (Hanover Research): https://glc.hanoverresearch.com/register Referral Code: Reveille



For Early Career Faculty Development CONTACT LAURIE GARTON, Ph.D. Associate Director Isgarton@tamu.edu Education and Outreach programs available for research grant collaboration: https://vpr.tamu.edu/research-developmentservices/education-and-outreach-expo



For General Inquiries **CONTACT SHANNON EYRE** Senior Administrative Coordinator seyre@tamu.edu



vpr.tamu.edu/rds



### LARGE PROPOSALS

The Large Proposal Development Team supports the Texas A&M research community in pursuing external research funding by providing a full array of proposal-development services for large, strategic and/or multidisciplinary funding opportunities.



Limited submissions are funding opportunities from sponsors that limit the number of submissions an institution may submit. Research Development Services (RDS) manages the limited submission process for Texas A&M's AgriLife, TEES, HSC and TAMU. Visit our website for complete process description.

vpr.tamu.edu/rds/limited-submission-proposals





K. LANCE KELLY, Ph.D. Sr. Research Development Officer k.lancekelly@tamu.edu



MEGAN BERGERON, Ph.D. Sr. Research Development Officer megan.bergeron@tamu.edu



GABRIELLA KEANAAINA, MBA Limited Submission Coordinator keanaaina@tamu.edu



For Large Proposal or Limited Submission Support CONTACT

GABRIEL RIVERA, MBA Associate Director rivera@tamu.edu



TEXAS A&M UNIVERSITY Division of Research

vpr.tamu.edu/rds Produced by Research Communications 7/2024

### Texas A&M University **RESEARCH SECURITY** and **EXPORT CONTROLS**

The Division of Research is committed to promoting and ensuring the highest standards of research integrity in proposing, conducting and reporting research. Through its various programs, the division provides information and guidance in areas such as export controls, conflicts of interest/commitment, visiting scholars and responsible conduct of research.

### RESPONSIBLE CONDUCT OF RESEARCH

Texas A&M University is committed to supporting responsible and ethical conduct of research and scholarship among its faculty, staff and students. As such, the university follows federal, state and university guidelines regarding responsible conduct of research (RCR) training. Individuals receiving support from federal funds are required to complete RCR training per the granting agency requirements. Additionally, students and postdoctoral fellows are required to complete RCR training per University SAP 15.99.99.M0.04. RCR training covers topics such as authorship, plagiarism, peer review, human subjects' protections, animal welfare, research data management, conflicts of interest, collaborative research, export controls, scientific ethics, safe research environments, and research security/IT awareness, among others.

### FINANCIAL CONFLICTS OF INTEREST

In order to promote objectivity in research, all investigators are required to disclose any involvement that might constitute a financial conflict of interest (FCOI) as applied to all externally sponsored research activities. Investigators include any person, regardless of title or position, who is responsible for the design, conduct or reporting of research or research activities. Investigators must submit a Financial Disclosure Statement to the COI Official via the Huron Research Suite: (1) within 30 days of initial employment; (2) prior to the submission of an application for funding; (3) at least annually; and (4) within 30 days of acquiring a new significant financial interest requiring disclosure.

### **CONFLICT OF COMMITMENT**

The goal of Texas A&M is to provide a transparent system of disclosure of its employees' external activities which might raise concerns about conflicts of commitment. This procedure gives the institution the responsibility to protect the credibility and reputation of the university and its faculty and staff when employees are engaged in external activities, ensures compliance with state ethics laws and The Texas A&M University System Policies and Regulations, and addresses conflicts between external, professional, and non-professional activities and university responsibilities.



### TIME AND EFFORT

Our office is responsible for the oversight of Time and Effort reporting for TAMU, TAMUG, TAMU Health and TAMUS. In addition, our office oversees Time and Effort Central Administration (TECA for the entire Texas A&M System. As a recipient of federal funds, Texas A&M is subject to financial accounting and reporting obligations designed to ensure that the charges to its federally sponsored projects are allowable and properly allocated. The University's electronic effort certificationsystem provides the principal means for accomplishing effort certification.

### CONTACT

TAMU 2407 Crystal Park Plaza 2700 Earl Rudder Fwy S Suite 4000 College Station, TX 77845 979.862.6419

rcr@tamu.edu coi@tamu.edu exportcontrols@tamu.edu timeandeffort@tamu.edu visitingscholar@tamu.edu



### **INTERNATIONAL COLLABORATIONS**

### **EXPORT CONTROLS**

Export control laws and regulations establish the conditions under which controlled information and items can be transmitted to anyone outside the United States and to foreign persons and entities in the United States. They also restrict or prohibit the transaction of business with certain countries, persons and entities that have been sanctioned by federal agencies as a threat to U.S. interests. All Texas A&M employees and students must be aware of and are responsible for the export control implications of their work and must ensure that their activities conform to export control laws and regulations. There are severe institutional and individual penalties for violations of export control laws and regulations, including the loss of research funding, loss of export privileges and/or criminal and civil penalties.

### **VISITING SCHOLARS**

Texas A&M often hosts visitors who come to collaborate on research and scholarly topics of mutual interests or to work on specific research to be conducted within university research and/or clinical facilities. These visiting scholars are not employees of the university. Through the appropriate approval process, they can be allowed access to university facilities and resources and issued a UIN and NetID that will allow them to obtain an official Texas A&M email address, visitor identification card and/ or library card. All individuals assigned under a visiting scholar title are subject to and are required to observe all applicable federal, state, and local laws, including, but not limited to, export control laws and regulations, and requirements of Texas A&M rules and regulations including intellectual property rights and obligations.

### FOREIGN INFLUENCE IN RESEARCH

There is growing concern among federal agencies regarding certain agreements and activities between U.S.-based researchers and various foreign universities and institutions. The existence of such agreements and/or activities may have a negative impact on federal funding decisions for individual researchers. Of utmost concern are the cases where researchers are not disclosing these relationships and activities to their home institution or to U.S. federal sponsors of their work, potentially violating the requirements of either or both. Funding agencies have made the following clear: investigators and their universities must completely disclose all foreign activities to their sponsors. The term "foreign influence" has not been officially defined by the federal government. However, various government agencies have identified foreign activities that require disclosure. These include, but are not limited to, foreign funding of sponsored research; foreign employment; use of unfunded (in-kind) resources from foreign sources, including equipment, staff, or laboratory/office space; participation in foreign talent programs; foreign sponsored travel; international collaborations; and other funded or unfunded services such as accepting any titled academic, professional, or institutional position such as honorary, visiting, or adjunct faculty positions.





### **INTERNATIONAL SHIPPING**

Anyone shipping internationally is responsible for complying with all export control laws and regulations. Knowing the proper export control classification and authorization is imperative to complying with the federal regulations. The Research Security and Export Controls Office (RESEC) is here to support you if you need to export an item(s) to facilitate your research. All items will be controlled for export to a U.S. embargoed or sanctioned country. If you have questions or concerns, please contact the RESEC Office.

### INTERNATIONAL TRAVEL

Individuals traveling internationally on university business or with university property are responsible for complying with export control laws and regulations which may restrict or prohibit some travel related activities/destinations, and require licenses for other activities. The RESEC Office can help with these assessments to ensure institutional and individual compliance with export control requirements.

## SPONSORED RESEARCH Services

Sponsored Research Services (SRS) was established September 1, 2011, to provide research administration services to The Texas A&M University System members headquartered in Brazos County, as well as the Texas A&M Galveston and Texas A&M Qatar campuses. In addition, SRS supports pre-award and/or post-award services for some of the A&M System's regional campuses.



"We worked with SRS to process a \$2.7 million proposal for scholarships and in the process of providing the sponsor with additional information, they **increased our award to 4.7 million**."

- internal agency, campus

### PROPOSAL PREPARATION AND SUBMISSION

The proposal administrators assist researchers with the preparation and submission of proposals for external funding. Services include budget development; completion of most administrative sections of the proposal; and ensuring that the proposal is compliant with A&M System policies, System members' requirements, state and federal regulations, and the funding agency's specific terms and conditions. The proposal administrator enters proposal information into MAESTRO where it routes for review and approval to appropriate stakeholders. After review and approval, the proposal administrator submits the proposal to the sponsor and tracks the successful receipt of the proposal.

Proposal submission guidelines are located on the SRS webpage: srs.tamu.edu/proposals/submission-guidelines

### ABOUT SRS | est 2011

Our mission, as leaders in research administration, is to serve as experts in the field while delivering efficient and superior service to members of The Texas A&M System research community.

- Exhibit leadership in research administration
- Collaborate to develop consistent and efficient procedures
- Engage in training and professional development
- Minimize the administrative burden of the research process
- Deliver outstanding customer service to our members
- Improve communication throughout the research community
- Promote and maintain transparency to our members in order to foster excellent working relationships
- Maximize the benefits of technology

### CONTACT

Sponsored Research Services

400 Harvey Mitchell Parkway, Suite 300 College Station, Texas 77845 **979.862.6777** 



### **CONTRACT NEGOTIATION**

Agreements require careful review to protect the interests of the researcher and the A&M System member. An SRS contract negotiator reviews the terms and conditions of federal, state, and non-profit agreements for non-standard conditions and negotiates any necessary changes. SRS negotiates research agreements for Texas A&M University (including the Galveston campus), Texas A&M Health Science Center, Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service, Texas A&M Transportation Institute, Texas A&M University-Central Texas, Texas A&M University-San Antonio and the Texas Institute for Applied Environmental Research at Tarleton State University. AgriLife Research, AgriLife Extension Service and the Texas A&M Engineering Experiment Station negotiate their own industry agreements.

### AWARD AND ACCOUNT SET-UP AND EXPEDITING TEAM (AASET)

AASET performs the intake role of award documents from sponsors and establishes sponsored projects and accounts in MAESTRO and FAMIS. This includes issuing a summary of award regulations and requirements for each account to the researcher and department administrator. AASET is also responsible for managing the sponsor tables in MAESTRO and data integrity of the award set up.

### **PROJECT ADMINISTRATION**

The project administration team is committed to providing timely, accurate, and courteous assistance to our faculty, external sponsors, and other System members. The project administration team assists customers in exercising good project management practices in the administration of externally-funded sponsored programs during the lifecycle of an award—from project establishment to closeout. These practices ensure compliance with System members' policies, state and federal regulations and grant-specific terms and conditions. The project administration team provides assistance making necessary changes to various financial aspects of the project while working with the principal investigators and other members of the System's research community in accomplishing the statement of work, on time and within budget and compliance.

### **SPONSORED BILLING**

Sponsored project invoicing, letter of credit draws, and financial reporting are conducted by the SRS Sponsored Billing Office in accordance with the sponsors' terms. The collection of aged receivables are also managed by the SRS Sponsored Billing Office.

### **RESEARCH REPORTING**

Research Administration is responsible for all Texas A&M external research reporting and data surveys. Research and Development (R&D) reports include:

- Annual financial reports related to sponsored projects
- Internal and external requests regarding research award activities
- Legislative annual request for research data regarding research targets and performance measures
- National Science Foundation (NSF) Higher Education R&D Survey
- NSF Survey of Science & Engineering Research Facilities
- Texas Higher Education Coordinating Board Research Report





### MAESTRO

The Research Information Systems department develops, implements and maintains the enterprise information system, MAESTRO. MAESTRO supports researchers and research administrators across the A&M System. Through various modules, MAESTRO provides transparency to users so they may review and approve their proposals prior to submission to the sponsor, check the status of contracts in negotiation and view post-award information. The executive portal provides leadership transparency into statistics related to proposals, awards and expenditures across fiscal years or calendar years and on organizational units, researchers or funding sponsor levels.

# Texas A&M University **ENERGY INSTITUTE**

### DISCOVERING ENERGY SOLUTIONS, IMPROVING QUALITY OF LIFE

The Texas A&M Energy Institute is a joint institute between Texas A&M University and the Texas A&M Engineering Experiment Station (TEES). The institute engages undergraduate and graduate students, postdoctoral associates, research staff, and faculty members in the study and development of innovative technologies and policies for energy production and energy conservation in the energy transition.

Special attention is paid to elucidating the complexity among the interacting components of energy, economics, law, public policy, and the environment.

With more than 300 faculty affiliates from colleges and schools across Texas A&M, more than 30 Texas A&M departments, two Texas A&M branch campuses, and five Texas A&M University System member institutions, along with a unique community of more than 450 doctoral students and postdoctoral fellows in the Texas A&M Energy Research Society, cutting-edge solutions are being realized through true interdisciplinary collaborations that will address the complexity and challenges of the world's energy future.

### **MAJOR INITIATIVES**

Within its vision of Discovering Energy Solutions and Improving Quality of Life, the Texas A&M Energy Institute has established several major initiatives or is playing an executive role in the operations of interdisciplinary efforts for energy research and education.

### **MAJOR PARTNERSHIPS:**

Within its vision of Discovering Energy Solutions and Improving Quality of Life, the Texas A&M Energy Institute has established several major partnerships to advance interdisciplinary efforts in energy research and education.





Texas A&M UNIVERSITY Texas A&M Energy Institute



energy.tamu.edu

### TEXAS A&M ENERGY INSTITUTE RESEARCH THRUSTS

The institute cultivates multi-investigator and multi-institution collaborative research from a variety of funding sources on relevant and leading-edge topics. These efforts center on crossing traditional disciplinary and college boundaries to assemble faculty, staff, students, researchers, and industry representatives, utilizing a systems approach to the energy solutions of the future, looking into energy transitions scenario analysis, as well as sustainability, carbon monetization, and the circular economy as important dimensions.



### **GRADUATE PROGRAMS IN ENERGY**

Designed to create the next generation of leaders in energy, our graduate programs target both students and professionals who want to be educated on the high-impact and interdisciplinary facets of the energy research landscape through quantitative analytical methods and multi-scale systems-based approaches ranging from an overview of energy technologies (fossil-based, renewable, and non-fossil based) to multi-scale energy systems engineering methods, to energy economics, law, security, policy, and societal impact.

The Texas A&M Energy Institute aims to increase student competitiveness in the marketplace and assist students in gaining transferable skills as project managers, financial managers, and other leadership roles. Further, this will ensure that highly skilled graduates are available to meet the evolving needs of industry, government and their communities, as well as address development challenges brought on by the energy transition.

### Master of Science in Energy

Through a 10-month long program, featuring thesis and non-thesis tracks, the Master of Science in Energy aims to expose students and professionals to (a) important energy challenges and opportunities, and (b) advances in theory, methods, technologies, and applications delivered by energy leaders from academia, industry, and government, through a module-based structure and a distinguished seminar series.

Emphasis is placed on creating the new generation of energy-educated students and professionals who will be broadly exposed to all components of energy.

Three elective course themes have been designed: Energy Digitization, Energy Policy and Management, and Sustainable Energy. For more details, please visit energy.tamu.edu/education

### Certificate in Energy

Following a similar modality as the Master of Science in Energy, the graduate-level Certificate in Energy requires only 10 modules and results in 15 credit hours. The courses for the certificate are the same courses as the Master of Science in Energy, and can be completed in a face-to-face modality in College Station or online via distance learning (through a live broadcast or recorded videos).

### In-Person/Online

**Module-Based** 



Thesis/Non-Thesis



# *Texas A&M* **INSTITUTE OF DATA SCIENCE**

The Texas A&M Institute of Data Science (TAMIDS) is a Texas A&M University-wide Institute jointly established by TAMU, Texas A&M Engineering Experiment Station and Texas A&M AgriLife and operates under the Division of Research. The Institute pursues new approaches to data science research, education, operations and partnerships. Our programs cross college boundaries to connect elements of data science from engineering, technology, science and the humanities and inform wider social challenges. These programs create opportunities and resources for students, researchers and faculty who wish to learn about Data Science hands-on through code and examples, or complement their foundational knowledge with computational skills.



### **RESEARCH AFFILIATES**

The Data Science Research Affiliates Program aims to increase visibility for Texas A&M data science researchers and involve them in developing and joining activities under the auspices of TAMIDS. The program is open to all Texas A&M faculty (in tenure, professional, instructional, research, and other tracks), research scientists, postdoctoral researchers, administrative and operations staff and professionals whose roles and interests include data science.



### DATA SCIENCE EDUCATION, TRAINING AND OUTREACH

TAMIDS helps students, faculty and researchers acquire skills and expertise in data science through education, training, and support. Current programs include:

► Bring You Own Data Workshops: Available weekly, these workshops are one-on-one online consultancy sessions with a TAMIDS data scientist who can help with formulating approaches to your data science research project and assist with developing code to take advantage of the latest data analytics methods and high-performance computing facilities.

**Data Science STEW** (Seminars, Tutorials, and Educational Webinars):

TAMIDS hosts events all semester to data science skills and working knowledge. A weekly seminar featuring leading external speakers from a broad range of domains within data science is hosted in conjunction with departments across Texas A&M. Tutorials are led by experts across Texas A&M University in both synchronous as well as recorded sessions, these events help develop skills and expertise in methods, tools and systems used in varied foundational and application domains of data science. Student Competitions and Outreach: Held annually in the spring, the Data Challenge requires student teams to work together on real-world problems and develop their professional skills. The Institute also sponsors competitions hosted by student organizations and supports outreach through our Ph.D. Student Ambassador program.

### Professional and Course Development:

TAMIDS collaborates with Texas A&M departments, colleges and faculty to develop degree programs, certificates and innovative courses in foundations and applications of data science, including Artificial Intelligence and Machine Learning. The Institute coordinates the Master of Science in Data Science degree, which is a 30-hour on-campus interdisciplinary program operated by the Colleges of Engineering and Arts & Sciences.



### TEXAS A&M



Texas A&M Engineering Experiment Station



### tamids.tamu.edu

### **RESEARCH COLLABORATION & PROPOSAL SUPPORT**

TAMIDS's data scientists are involved in collaborations with academic, agency and administrative units at Texas A&M that use data science both in fundamental research and to enhance the operations of the University. Additionally, the Institute has developed "building blocks" for the data science ecosystem that can support proposals for extramural funding. These components include:

**SERVICE AND ENABLEMENT:** TAMIDS staff data scientists acting as research collaborators and consultants

**OUTREACH AND EDUCATIONAL DEVELOPMENT:** TAMIDS can help researchers adapt data science educational and training materials, operate training courses in data science, or organize outreach to new communities and target groups.

**INTERDISCIPLINARY COMMUNITY BUILDING:** Ranging from single PI to center-level proposals through workshops and seminars

### THEMATIC LABS

TAMIDS collaborates with dozens of researchers across our eight Thematic Labs working to strengthen Texas A&M's research, improve data science literacy, and tackle challenges impacting society.

- Agriculture Smart Data Lab
- Data Justice Lab
- Operational Data Science Lab
- Scientific Machine Learning (SciML) Lab
- Urban Al Lab

- Digital Twin Lab
- Knowledge Development Lab
- Visceral Intersensory Visualization & Information Design (VIVID) Lab

### **GRANTS & SCHOLARSHIPS AVAILABLE**

TAMIDS releases calls for proposals throughout the year to support students and researchers. Some opportunities include:

▶ Workshop Development Grants Program: TAMIDS solicits proposals for one-day workshops in any area of data science, AI, or machine learning. The program supports community building, stimulates collaboration, and fosters interdisciplinary growth in data science areas among researchers at Texas A&M.

**Student Travel Grant Program:** TAMIDS provides funds to support undergraduate and graduate students' attendance and participation at conferences in any domain of data science. Up to \$500 in travel funds will be awarded under this program.

• **Course Development Grant Program:** One-year grants are awarded to support faculty to develop new courses in data science areas or to revamp existing courses to include data science components.

▶ Visiting Researcher Program: TAMIDS solicits nominations by prospective TAMU hosts for external researchers to engage with activities in TAMIDS and the wider TAMU Data Science community during long-term full-time visits.

▶ **Research Collaboration Grants:** These one- to two-year grants aim to expand research collaboration with TAMIDS Thematic Labs and support individuals interested in Data Science, AI, and Machine Learning research.

TAMIDS programs create opportunities and resources for students, researchers and faculty to learn and implement Data Science in their work.

### NICHOLAS G. DUFFIELD

Director duffieldng@tamu.edu 979.845.7328



Join our mailing list at u.tamu.edu/tamids-mail to get our weekly "Data Feed" newsletter and keep up-to-date on all our events and opportunities.

### tamids.tamu.edu





*The Attending Veterinarian (AV) is responsible for the health and well-being of all animals used for research, teaching, and testing at Texas A&M University.* 

The AV has the authority to treat, remove from the experiment, institute appropriate measures to relieve severe pain or distress, or euthanize an animal if necessary.

The Attending Veterinarian has access to all animals and resources to manage the program of veterinary care and to oversee the adequacy of the animal care and use program.

Currently, the executive director of the Comparative Medicine Program serves as the attending veterinarian.



### **RESPONSIBILITIES INCLUDE:**

- Oversees all institutional plans involving renovation or construction of facilities in which animals are housed or used, including design and maintenance of animal facilities
- Regularly and clearly communicates the needs of the animal care program to the Institutional Official
- Provides input for protocol review, development of study removal criteria, and responsible conduct of research activities
- Oversees several aspects of the program of veterinary care such as husbandry, housing, preventative medicine and health surveillance, medical treatment, establishment of sedation, anesthetic and analgesic guidelines, handling, and immobilization
- Assures that veterinary medical care and emergency veterinary care are available after work hours, on weekends, and on holidays
- Provides guidance and oversight for surgery programs and peri-operative care
- Assures that personnel working with animals have adequate skills and knowledge to conduct procedures on animals in an appropriate and humane manner







### ROBERT E. ROSE, DVM Attending Veterinarian comparative-medicine@tamu.edu 979.845.7433

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cmp.tamu.edu

### Texas A&M University COMPARATIVE MEDICINE Program

The Comparative Medicine Program (CMP) enhances excellence in research and teaching at Texas A&M through high quality animal care at an affordable cost to the faculty, consistent with the standards established by the "Guide for the Care & Use of Laboratory Animals" and all pertinent local, state, and federal laws.

CMP is the centrally administered support service for research and teaching programs at Texas A&M, College Station. CMP's facilities and services are available for all Texas A&M, College Station campus-affiliated faculty, staff, and students who have been approved to conduct animal research by the Institutional Animal Care and Use Committee (IACUC). CMP is the administrative home for the institution's federally-mandated attending veterinarian.

### **ANIMAL HEALTH STATUS**

A number of procedures are part of the CMP animal care program that help define, monitor, and control the health status of the animal populations housed within the CMP facilities. All animals housed at the CMP facilities must have their health status defined through a current animal vendor health report or through specific testing requested by the CMP staff veterinarians. Specific-pathogen-free animal populations are the primary populations housed at CMP. The acquisition of animals from sources other than CMP-approved vendors must be coordinated through the CMP veterinary staff.

### **ANIMAL CARE**

CMP provides controlled environments for a variety of laboratory animals. Temperature, humidity, light cycles, space, food, water, and bedding are all monitored and maintained within established parameters. Sanitation schedules are established to ensure that cages are clean.

### SURGICAL FACILITY

CMP maintains a well-equipped surgical area. The area may be used for any current, IACUC-approved surgical protocol. For additional information, contact the surgery supervisor at 979.845.7433.

### SERVICES

### CMP facilities offer:

- Standard laboratory animal housing and care
- Specialized (biohazard and hazardous chemical) animal housing
- Animal isolation housing

### CMP services include:

- Procurement of animals and animal husbandry
- Veterinary care
- CMP surgical facilities
- Polyclonal antibody production service
- Technical support





### HOURS OF OPERATION

Administrative Offices: Open from 8:00 a.m. to 5:00 p.m., Monday through Friday (closed weekends and university holidays).

► Animal care: Provided seven days a week/365 days a year, with a duty supervisor and veterinarian on-call 24 hours a day.

### **ROBERT E. ROSE, DVM**

*Executive Director* comparative-medicine@tamu.edu 979.845.7433



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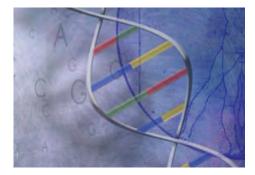


## **COUNCIL OF PRINCIPAL INVESTIGATORS**

The Council of Principal Investigators (CPI) is composed of principal investigators (PIs) that are members of the Texas A&M research community. *The CPI is committed to the continued improvement of the research* environment for students, faculty and staff. Specifically, the CPI and the PIs it represents endeavor to work with administration to provide an effective and efficient research organization to achieve the goal of being nationally recognized and competitive in research and teaching.

### **BRIEF HISTORY**

The CPI began in 1984, with research-active faculty members meeting informally to discuss ways to strengthen the research infrastructure and provide support for researchers at Texas A&M University. The group briefly joined the Faculty Senate in 1985, but chose to separate from the senate to serve as an independent and faculty-governed council representing the interests of the Texas A&M research community.



### WHO DOES THE CPI REPRESENT?

The CPI is a representative body of 50-55 elected members representing more than 2,300 principal investigators from Texas A&M, Texas A&M Engineering Experiment Station (TEES), The Texas A&M Health Science Center, Texas A&M Transportation Institute (TTI), Texas A&M AgriLife Research and Texas A&M AgriLife Extension. A PI is defined as an individual who has served as a PI or Co-PI on at least one externally reviewed and funded project or grant within the previous three years.

The number of CPI members representing each unit is determined by census conducted each spring. After the census, each college/ unit holds an election to identify the representatives of its constituency on the council. Members serve a three-year term and may be elected for two consecutive terms. cpi.tamu.edu/council-membership

### **TOPICS PREVIOUSLY ADDRESSED BY CPI**

- Campuswide research survey
- Centralization of facilities maintenance and HR with hiring research personnel
- Need for NIH resources (faculty recruitment)
- Internal Funding Opportunities (ASCEND, TPT, ADM, etc.)
- Research Identity
- Chancellor Doctoral Research Excellence Assistantship
- GREAT Program
- Research Development Fund
- Sponsored Research Services
- Core facilities
- Texas A&M Information Technology infrastructure
- Research compliance, biosafety, export controls, and global engagement
- Postdoc and graduate student recruitment
- State and federal funding and executive actions

### 2023-2024 OFFICERS

### **CHAIR**

Jessica Bernard (Arts & Sciences) Jessica.bernard@tamu.edu 979.845.2581

### **VICE CHAIR**

**Robin Page** (Nursing) rpage@tamu.edu 979,436,0147

### **PAST CHAIR**

Debjyoti 'Deb' Banerjee (Engineering) dbanerjee@tamu.edu 979.845.4500

### **2023-2024 EXECUTIVE COMMITTEE MEMBERS**

Helene Andrews-Polymenis (Medicine) Rebecca Brooker (Arts & Sciences) Candice Brinkmeyer-Langford (Veterinary Medicine & Biomedical Sciences) Jessica Fitzsimmons (Arts & Sciences) Carl Gregory (Medicine) Daniel Jiménez (Engineering) Katie Lewis (Texas A&M AgriLife Research) Aaron Tarone (Agriculture and Life Sciences) Guoyao Wu (Agriculture and Life Sciences)

### **COUNCIL ACTIVITIES**

The CPI meets the second Wednesday of each month from 11:30 a.m.-1:15 p.m.

The meetings are open to the public and have Zoom options. If interested in attending, visit the meeting website *cpi.tamu.edu/meetings*, or contact the CPI coordinator at *cpi@tamu.edu*.

Members serve as liaisons between the council and their PI constituency; volunteer to serve on external committees where CPI representation has been requested; and identify areas of interest or expertise in some particular issue to the chair.

### GOVERNANCE

CPI officers are the chair, vice chair and past chair. Additional CPI members, as recommended by the chair and ratified by the full CPI, serve with the CPI officers on the executive committee (EC). The EC is responsible for advising the chair on council activities.

The EC meets with members of the Texas A&M research administration the first Wednesday of the month from 11:30-1:15 p.m. These meetings are open to CPI members. The EC also meets regularly with the chancellor; the president and provost; and other faculty groups and administrative offices that impact the Texas A&M research communities.





### COMMUNICATION/WEBSITE

The CPI distributes an electronic monthly newsletter announcing items of interest for PIs and the research community. Current and past newsletters can be found under the general meetings at *cpi.tamu.edu/meetings*.

At *cpi.tamu.edu*, visitors can find the CPI membership roster and contact information, meeting dates/times, archived meeting materials and videos and other materials and information relevant to the Texas A&M research community.

### QUESTIONS

Questions or suggestions about improving the website can be directed to the CPI coordinator at *cpi@tamu.edu* or 979.862.9166.

### **SPONSORS**

CPI activities and staff support are sponsored annually through equal funding from:



TEXAS A&M UNIVERSITY Division of Research









Texas A&M Engineering Experiment Station