GRADUATE RESEARCH FELLOWSHIP

Pathways to the Doctorate
Pathways to the Doctorate Graduate Research Fellows have the opportunity to study and conduct research in collaboration with renowned Texas A&M University teams comprised of faculty from individual departments, department clusters or individual interdisciplinary degree programs.

For prospective PhD students who are US citizens or permanent residents and currently enrolled as undergraduates at universities within the Texas A&M University System

- One-year $21,600 stipend
- $10,000 tuition and fee support for one year
- Department funding for years 2 to 4

read more...
Who: Prospective PhD students who are U.S. citizens or permanent residents and currently enrolled as undergraduates at universities within the Texas A&M University System (excluding Texas A&M - College Station).

What: Financial incentive through the Pathways to the Doctorate Graduate Research Fellowship.

Tell me more: The Pathways to the Doctorate Graduate Research Fellowship consists of a one-year $21,600 stipend plus $10,000 in tuition and fee support for the student’s first year, conditional upon the selected student both continuing employment with the awarding Pathways team faculty member/department and maintaining satisfactory progress toward completion of their doctorate. Department provides funds for each Pathways to the Doctorate Fellow for years 2 through 4.

Currently, numerous faculty teams are searching for outstanding candidates qualified to help pursue the team’s particular research concepts/goals/projects while advancing chosen students’ academic careers.

Why? Pathways to the Doctorate Graduate Research Fellows have the opportunity to study and conduct research in collaboration with renowned Texas A&M University teams comprised of faculty from individual departments, department clusters or individual interdisciplinary degree programs. Faculty teams will also mentor the fellows in:

- Gaining authentic research experience
- Developing critical thinking capacity
- Establishing relationships with research professionals
- Developing leadership skills necessary to manage diverse teams and to navigate complex problems
- Cultivating their professional development skills and curriculum vitae enabling fellows to become attractive candidates for prestigious faculty and other scholarly career opportunities

When? The Pathways to the Doctorate Graduate Research Fellowships are awarded on a yearly basis, typically in early spring.

Prospective TAMU PhD students may contact Pathways to the Doctorate faculty teams for more information (see descriptions in the brochure).
Dr. John Ford and Dr. Susan Bloomfield lead this interdisciplinary group of faculty from several degree programs and departments throughout the university (http://slsgraduateprogram.tamu.edu/NSBRI/content.aspx?page=234). The team includes faculty that confer degrees in Biomedical Engineering, Genetics, Health Physics, Kinesiology, Nutrition, and Medical Sciences. Their research focuses on dietary chemoprevention of colon cancer and inflammatory bowel disease, radiation effects on biological tissues and loss of bone or muscle mass/strength with disuse and simulated space flight.

Team Leader: John Ford, Ph.D., Associate Professor, Department of Nuclear Engineering - theasl@tamu.edu

Dr. Walter Buenger, Dr. Armando Alonzo, Dr. Carlos Blanton, Dr. Albert Broussard, Dr. Glenn Chambers, Dr. Thomas Dunlap, Dr. Walter Kamphoefner, Dr. Alberto Moreiras, Dr. Ernest Obadele-Starks, and Dr. David Vaught: This team focuses their research on the history of the Southwest and its border and also Latino history. The team finds particular interest in the trans border influences of Mexico, the American West and the American South on the Southwest region: its people, the social construction of ethnicity, race, religion, gender and political/ economic behavior.

Team Leader: Lorien Foote, Ph.D., Professor, Department of History - lfoote@tamu.edu

Dr. Sara Castro-Olivo Dr. Mack Burke, Dr. Lisa Bowman-Perrot: This team will conduct research that focuses on the development and validation of culturally-responsive MTSS for CLD populations within school settings. Future pathways mentees will be exposed to applied research that will train them to identify best practices for screening and identifying students at risk for social-emotional and behavioral issues. Mentees will also learn best practices for selecting and implementing interventions that are aligned to the students’ and families culturally reality. This team is actively seeking additional funding to scale up these efforts in Texas and other states.

Team Leader: Sara Castro-Olivo, Ph.D., Associate Professor, Department of Educational Psychology - s.castro-olivo@tamu.edu

Dr. Pete Teel, Dr. Roger Gold, Dr. Jeffery Tomberlin: This team from the Department of Entomology focuses on research projects linked to medical-veterinary and/or urban entomology. Projects include defining and managing fly borne parasitism and fly borne diseases in farmed deer operations and identifying ticks involved in the maintenance and transmission of equine piroplasmosis. Further, the team aims to develop management procedures to mitigate the risk of disease.

Team Leader: Pete D. Teel, Ph.D., Professor, Department of Entomology - pteel@tamu.edu

Dr. Elena Castell-Perez, Dr. Jaine Moore, Dr. Maria King, Dr. Rosana G. Moreira: The project addresses the area of national need in food process engineering to solve safety, and food security problems. The overall goal is to support the training of graduate fellows in developing skills in areas related to food processing systems to prepare them for careers in academia, industry, or government and promote innovative research programs in food safety/security. The fellowships will enable students to become expert problem solvers with strong engineering skills. Each fellow will undergo a meaningful, supervised experience in teaching and research from the team of collaborators, while being directed through the requirements of their degree.

Team Leader: Elena Castell-Perez, Ph.D., Professor, Department of Biological & Agricultural Engineering - ecastell@tamu.edu
Dr. Miladin Radovic, Dr. Raymundo Arroyave, Dr. Ibrahim Karaman, and Dr. Patrick Shamberger: This research team is developing new multifunctional materials and new approaches to engineer these materials to enable efficient energy conversion and storage. Most significant advances in energy technologies have been enabled by discovery of new materials, which have led to more efficient energy utilization, expanded the renewable energy inventory, facilitated the storage of energy, and allowed a recovery of energy that otherwise would be wasted. According to the Grand Challenges identified by NAE and DOE, further improvement of the US energy outlook can be achieved through advances in material science and engineering. Students under this team’s guidance research topics including: microstructural design for enhanced efficiency in solid-state energy conservation, virtual design of novel ferromagenetic shape memory alloys, electro-mechanical coupling in oxide ceramics and hysteresis engineering in multifunctional materials systems.

Team Leader: Miladin Radovic, Ph.D., Associate Professor, Department of Material Science - mradovic@tamu.edu

Dr. Keri Norman and Dr. H. Morgan Scott: The research of this faculty team broadly encompasses investigations into the epidemiology of bacterial pathogens of importance to human and animal health using both phenotypic and genotypic approaches. Students have the opportunity to learn basic bench top microbiology laboratory skills in addition to molecular methods such as PCR, PFGE and next generation sequencing, and to apply these to population-level interpretations involving molecular epidemiology and microbial ecology. The lab is interested in pre-harvest food safety and dissemination of antimicrobial resistant bacteria into the food chain. Current research focuses on the dynamics of E. coli, Salmonella, MRSA, and C. difficile in cattle, swine and human populations and how using of antibiotics and their alternatives affects bacteria in these populations. Students will have the opportunity to network and collaborate with scientists at the U.S. Department of Agriculture, Centers for Disease Control and Prevention and the Food and Drug Administration.

Team Leader: Keri Norman, Veterinary Pathobiology - knorman@cvm.tamu.edu

Dr. Tom Boutton, Dr. Jim Heilman, Dr. Kevin McInnes, Dr. Georgianne Moore, and Dr. Jason West: This faculty research team studies interactions between climate, the carbon cycle and the water cycle in Urban and Rural Texas Ecosystems. Students under their mentorship research climatological effects on soil respiration and carbon storage along rural to urban sites, photosynthesis among tree species growing among pollutants, moisture and heat gradients, impacts of environmental and ecological changes on water supplies and agricultural economy and impacts of land use/land cover changes on ecosystem carbon and water cycles.

Team Leader: Georgianne Moore, Ph.D., Associate Professor, Department of Ecosystem Science & Management - gwmoore@tamu.edu
The primary research focuses of this team include coastal sustainability and ecosystem health both in the Gulf of Mexico and in coastal oceans and estuarine systems around the world. Team areas of expertise include watersheds, bays and estuaries studies, pollutants and pathogens in the coastal environment, hypoxia, harmful algae blooms, coastal community planning and design, seafood safety and mariculture, fisheries, coastal and estuarine marine sedimentology, coastal morphodynamics, biogeochemical cycles, biodiversity and ecosystem functioning, coastal hazards and land use dynamics, wetlands, economics and also policy addressing the impacts of rapid urbanization in coastal zones.

**Team Leader:** Tim Dellapenna, Ph.D., Associate Professor, Marine Sciences, Galveston - timothy-m-dellapenna@tamu.edu

Dr. Ivan Rusyn, Dr. Robin Fuchs-Young, Dr. Natalie Johnson, Dr. Candice Langford. This research team prepares trainees to function as independent researchers and/or practitioners by providing training in mechanistic research and risk assessment with a focus on regulatory evaluations of the effects of chemicals on human health and the environment. To achieve this goal a team of 18 outstanding Texas A&M University faculty was assembled. Mentors specialize in Toxicology, Public Health, Risk Assessment, Exposure Science, Geochemistry, Cancer Biology, Epidemiology and Statistics. Trainees undertake two laboratory rotations in their first year and follow a structured core curriculum. In the second year, additional training in either a “Mechanistic Research” or a “Health Assessment” track is offered through elective courses that will further prepare trainees for careers in research and/or public health practice. A distinctive feature of the program is a strongly encouraged hands-on summer externship through a broad and diverse network of state and federal governmental regulatory agencies, as well as industry and non-governmental organizations. Following the first two years, trainee support for both pre- and post-doctoral fellows will shift to their mentor's or independent funding.

**Team Leader:** Ivan Rusyn, Ph.D., Professor, Department of Veterinary Integrative Biosciences - irusyn@tamu.edu
Dr. John Giardino, Dr. Franco Marcantonio, Dr. Mark Everett, Dr. Hongbin Zhang, and Dr. Michael Pope: This faculty team focuses their research on the geological environment. Faculty members combine research efforts on a project involving geomorphology, geochemistry, hydrogeology and geophysics. The overlapping research areas foster a “research family” type of mentoring atmosphere.

**Team Leader:** John Giardino, Ph.D., Professor, Department of Geology - rickg@tamu.edu

Dr. Daniel Conway and Dr. Tommy Curry: Texas A&M University is one of only a few institutions in the United States that features the teaching and research of a Black philosopher, Dr. Tommy Curry, who specializes in Africana thought and Critical Race Theory. PhD students in Philosophy at TAMU benefit in particular from two important resources: Philosophy Born of Struggle, the oldest and largest Black philosophy organization in the country, and a recently established intellectual exchange program with the Centre for Race and Identity at the University of Kwa Natal in Durban, South Africa. No other university in the country boasts this kind and quality of infrastructure in support of the study of Africana philosophy and Critical Race Theory.

**Team Leader:** Daniel Conway, Ph.D., Professor, Department of Philosophy - conway@tamu.edu

Dr. Luis O. Tedeschi, Dr. James P. Muir, Dr. Jaime L. Foster: The focus of the research is to develop and implement a sustainable livestock intensification program for Texas beef cattle industry (and associated industries) by developing feeding and management strategies that minimize the emission of greenhouse gas and the usage of antibiotics while maintaining the production sector viable economically, socially, and environmentally. Supporting funding will come from industry partners and federal sources such as the USDA-AFRI and NSF.

**Team Leader:** Luis O. Tedeschi, Ph.D., Animal Science Department - luis.tedeschi@tamu.edu

The Pathways to the Doctorate Graduate Research Fellowships are awarded on a yearly basis, typically in early spring.
CONTACT

Office of Graduate and Professional Studies
112 J. K. Williams Administration Bld - College Station, TX 77845
Phone: 979-845-3631 Fax: 979-862-1692
ogaps-fellowship-admin@tamu.edu

URL: ogaps.tamu.edu

2018