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 $20,000 stipend
- $9,000 tuition and fee support for one year
- Department funding available for years 2 to 5

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 $20,000 stipend plus $9,000 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 Funding of each Pathways to the Doctorate Fellow is available for years 2 through 5.

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. Nancy Turner, 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:** Nancy D. Turner, Ph.D., Associate Professor, Department of Nutrition & Food Science; Director, Space Life Sciences Training Grant - n-turner@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 borde 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:** Walter L. Buenger, Ph.D., Lead Faculty, Department of History - w-buenger@tamu.edu

Dr. Cynthia Riccio, Dr. Nathan Clemens, Dr. Jorge Gonzalez, Dr. Sandra Acosta: This team’s interests include early language and literacy, bilingual education and second language acquisition, measurement of early literacy, and determination of disability status from neuropsychological perspectives. As a team, their research focuses on the typical and atypical development of language and literacy skills for English Language Learners and takes into consideration cultural, social and neuropsychological perspectives on learning disability.

**Team Co-Leader:** Cynthia A. Riccio, Ph.D., School Psychology, Professor - criccio@tamu.edu
**Team Co-Leader:** Nathan Clemens, Ph.D., School Psychology, Assistant Professor - nclemens@tamu.edu

Dr. Jan Janecka, Dr. Bhanu Chowdhary, Dr. Terje Raudsepp, Dr. William Murphy, Dr. Christopher Seabury, Dr. James Womack, Dr. Gil Rosenthal, Dr. Charles Criscione, Dr. Michael Tewes: The research for this faculty team addresses questions in molecular ecology, evolution, behavioral ecology, conservation and infectious disease dynamics that fall into 5 broad sectors: genomics, phylogenetics, genetics of disease, evolution of phenotypes and ecological population genetics.

**Team Leader:** Jan Janecka, Ph.D., Research Assistant Professor, Veterinary Integrative Biosciences - janecka@cvm.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 and Associate Department Head, Department of Entomology - pteel@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 ferromagnetic 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. Gunnar Schade, Dr. Tom Boutton, Dr. Jim Heilman, Dr. Kevin McInnes, Dr. Georgianne Moore, Dr. Mark Tjoelker, Dr. Astrid Volder, 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: Gunnar Schade, Ph.D., Associate Professor, Department of Atmospheric Sciences - gws@tamu.edu
Dr. Nina Robson, Dr. Amarnath Banerjee, Dr. John Buchanan, and Dr. Reza Langari: The faculty members on this team possess research experience in design of mechanisms, kinematics of motion, systems control, motor neuroscience and virtual reality as applied to healthcare development. The team's current research focuses on defining the mechanisms by which human-motor systems find optimal solutions in order to improve the flexibility of robotic systems that operate in remote and challenging environments, and the development of technologies to aid people with disabilities.

**Team Leader:** Nina Robson, Ph.D., Engineering Technology and Industrial Distribution - robson@entc.tamu.edu

Dr. Norvella Carter, Dr. Mary Alfred and Dr. Gwendolyn Webb-Hasan: Focusing on research involving urban school systems, this team collects information through a collaborative effort between the departments of Teaching, Learning, and Culture, and Educational Administration and Human Resource Development within the College of Education and Human Development.

**Team Leader:** Norvella Carter, Ph.D., Professor, Teaching, Learning and Culture Department - ncarte@tamu.edu

Dr. Tim Dellapenna, Dr. Robin Brinkmeyer, Dr. Rainer Amon, Dr. Peter Santschi, Dr. Ayal Anis, Dr. Patrick Louchouam, Dr. Samuel Brody, Dr. Jay Rooker, Dr. Jaime Alvarado, Dr. Gilbert Rowe, Dr. Antonietta Quigg, Dr. Anna Armitage, Dr. Anja Schulze, Dr. Juan Horrillo, and Dr. Vijay Panchan: 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. - dellapet@tamug.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 and Head, Geology Department - 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, Professor of Philosophy; - conway@tamu.edu

Dr. James P. Muir, Dr. Jaime L. Foster, Dr. Luis O. Tedeschi, Dr. T. Wayne Schwertner (Tarleton State University), Dr. Barry D. Lambert, and Dr. Kim C. McCuistion (Texas A&M University-Kingsville): This research team focuses on the plant-ruminant interface, with special emphases on forages, rangeland and ruminant nutrition. Students under their mentorship research the interactions, both direct and tangential, of native and cultivated forages with indigenous and domesticated ruminants. This encompasses forage plant physiology, ruminant nutrition, parasitology, soil carbon sequestration and environmental health within animal ecosystems.

Team Leader: James P. Muir, SCSD TAMU j-muir@tamu.edu

Dr. Craig Coates, Dr. Clare Gill, Dr. Hubert Amrein, Dr. Rene Garcia, and Dr. Paul Samollow: This interdisciplinary team includes members from the departments of Animal Science, Biology, Veterinary Integrative Biosciences, Entomology and Molecular Cellular Medicine at the Texas A&M Health Science Center. The team’s collaborative efforts focus on elements of genetics research.

Team Leader: Craig Coates, Ph.D., Associate Professor, Entomology - ccoates@tamu.edu

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CONTACT

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