

EXHIBIT P

TEXAS A&M



A PROPOSAL FROM
THE TEXAS A&M
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SETTLEMENT FUND



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Since its founding in 1876, Texas A&M University has become a major international institution of higher education and an invaluable resource for Texas and the nation.

From its proud beginnings as a military college to its present stature as one of the nation's top research universities, Texas A&M has served its constituents with honor. The United States government has designated Texas A&M as the only land-, sea- and space-grant university in the state, and one of only 17 such universities in the country.

Academic excellence coupled with deeply-rooted traditions, unfailing loyalty and a unique spirit have placed the university among the nation's top institutions.

Texas A&M sets the standard as a world-class university of the future by combining knowledge, research and innovation to create solutions that few institutions have the depth and breadth to achieve.

Fall 2020 Enrollment

71,196



in academic excellence, research and service to the nation.
-Washington Monthly

in most graduates serving as CEOs of Fortune 500 companies.
-Fortune Magazine

in Texas for National Merit Scholar enrollment. *-National Merit Scholarship Corp.*

in Texas for "best value" education among public universities. *-Money Magazine*

COLLEGE OF ENGINEERING

The College of Engineering is the largest college on the Texas A&M University campus, and one of the largest in the country, with more than 21,000 engineering students enrolled in our 15 departments. The College of Engineering's undergraduate engineering program is ranked seventh among public engineering schools offering a doctorate. The engineering graduate program is ranked eighth among public institutions and 13th overall, in the recently released 2021 U.S. News & World Report Best College Rankings.

Our students can enhance the value of their degrees through various certificate programs, undergraduate research opportunities, global experiences and by participating in various design competitions, such as Aggies Invent,

the steel bridge contest and the SAE hybrid car contest. Our students can also choose from more than 80 different engineering student organizations and earn valuable job experience through co-ops and internships.

The college has 30+ faculty members involved in research and studies related to environmental sustainability and carbon capture. Over the past five years, these devoted professors and researchers have partnered with major organizations (National Science Foundation, Department of Energy, Qatar National Research Fund, etc.) on more than 55 sponsored research projects related to removing and reducing CO₂ and other greenhouse gases from the environment.



TEXAS A&M ENERGY INSTITUTE

The Texas A&M Energy Institute External Partnerships program focuses on establishing a vibrant interactive environment that brings together academia, government and industry to discuss, address and provide transformative solutions to energy challenges. Research conducted at Texas A&M represented annual expenditures of more than \$1 billion in fiscal year 2020. In its most recent submission to the National Science Foundation for the

Higher Education Research and Development survey, Texas A&M reported **\$1.131 billion in research expenditures** for fiscal year 2020, an increase of \$179 million, or 18.8%, over 2019's total of \$952 million.

Texas A&M has an outstanding cadre of faculty researchers and state-of-the-art facilities to better prepare its more than 71,100 students to become tomorrow's leaders.

The Texas A&M Energy Institute Interdisciplinary Research Program focuses on the interacting themes of:

- 1 *Fossil and non-fossil based technologies for energy*
- 2 *Materials, catalysis and separations for energy*
- 3 *Multiscale energy systems engineering*
- 4 *Energy economics, law, policy and societal impact*

Professor Stratos Pistikopoulos is the director of the Texas A&M Energy Institute and holds the Dow Chemical Chair in the Artie McFerrin Department of Chemical Engineering at Texas A&M University.



INVESTMENT OPPORTUNITIES

Texas A&M Energy Institute: Carbon Capture, Utilization and Storage Research Fund

\$1 million

The institute's 288 faculty affiliates hail from nine colleges and schools, more than 20 Texas A&M University departments, two Texas A&M University branch campuses and two Texas A&M University System member institutions. This institute pursues and supports new approaches for multidisciplinary energy research, education and external partnerships. These approaches cross departmental and college boundaries and address all facets of the energy landscape that naturally connect engineering, sciences, technologies, economics, law and policy decisions.

Your donation to the Texas A&M Energy Institute would enable and catalyze research collaborations to generate new technologies and perform policy analyses toward improving the production, distribution and consumption of fossil-based and non-fossil energy sources. It would also improve research and education interactions among faculty, students, postdoctoral associates and researchers to establish links with industry leaders, investors and entrepreneurs to promote the transfer of innovative and transformative technologies specifically focused on carbon capture and environmental sustainability.

These funds will be used over the three-year duration of the Carbon Management Alliance as outlined in the following document from the Texas A&M Energy Institute.

Dean's Environmental Sustainability + Carbon Capture Excellence Fund

\$500,000

Discretionary support would fund strategic initiatives related to Texas A&M Engineering's commitment to environmental sustainability, including CO₂ capture and the development of technology to reduce the release of CO₂ emissions in the future. Gifts may be used to enhance or expand the college's teaching, research and public service roles or to help pursue new opportunities and address strategic priorities, including the top-tier research of faculty members. Gifts may also be used to support faculty, student, and staff recruitment and retention.

Funds supporting the Dean's Environmental Sustainability + Carbon Capture Excellence Fund will be distributed at the dean's discretion.

INVESTMENT OPPORTUNITIES

Environmental Sustainability + Carbon Capture Undergraduate Research Scholars Program \$250,000

Each engineering department offers a variety of courses that provide undergraduates opportunities to work closely with faculty on a specific research topic. With more than 700 engineering faculty and more than \$320 million in research expenditures, there are opportunities for students to work on funded research projects within the College of Engineering or a student's department. This program would focus on outstanding students who have completed their sophomore years and are interested in contributing to ongoing faculty research related to sustainability and carbon capture. Students who take advantage of these advanced research opportunities are more likely to attend graduate school and continue researching innovative advances in engineering and technology.

Funding for this undergraduate research scholars program would provide a \$5,000 grant to the selected student and \$5,000 to support their assigned faculty mentor and associated research efforts. This premier scholars program would support 50 faculty members and undergraduate student scholars over the next 25 years.



Texas A&M Energy Institute:
Carbon Management Alliance
A Proposal to Audi CO₂ Cy Pres Settlement Fund

About the Texas A&M Energy Institute

The Texas A&M Energy Institute, a joint institute between [Texas A&M University](#) and the [Texas A&M Engineering Experiment Station](#) (TEES), 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 approximately 290 faculty affiliates from nine colleges and schools at Texas A&M University, more than 30 Texas A&M University departments, two Texas A&M University 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.

Executive Summary

Recognizing the ongoing *Energy Transition*, which is seeing shifts in energy technologies, production strategies and consumption behaviors, along with the need to reduce greenhouse gas (GHGs) emissions and manage carbon-based energy production, the Texas A&M Energy Institute has developed a research and educational initiative called the ***Carbon Management Alliance***. This effort, which brings together researchers and scholars from across disciplines and industries, is already developing a fundamental understanding of the theoretical and practical advances and tools that will enable informed decision-making and aid worldwide sustainability and decarbonization targets.

The 21st century has seen the widespread adoption of renewable energy sources, brought on both by both declining manufacturing costs as well as a growing concern about the environmental impacts of GHGs. Limiting the rise in global temperatures to under 2°C compared to pre-industrial levels over the next three decades is contingent upon global cooperation, support for research on sustainability and increased participation from industry. As such, decarbonization via carbon capture, utilization and storage (CCUS) is central to meeting net-zero emission goals for energy in the future.

The overarching goal of the Texas A&M Energy Institute's *Carbon Management Alliance* is to develop an innovative program with unique capabilities that provides low-cost, highly efficient and scalable CCUS technologies, as well as systems integration

solutions across CCUS supply chains, thereby providing intellectual leadership in industrial-scale CCUS and decarbonization.

Our frameworks can be applied toward the intertwined objectives of:

- Achieving Decarbonization Targets,
- Meeting Energy Demands Through Novel Energy Vectors, and
- Restricting Costs Incurred by Consumers [1, 2, 3, 4].

Our research efforts focus on:

- Understanding the Nexus Between Food, Energy, and Water [5, 6],
- Developing Metrics to Evaluate Systems for Circularity [7, 8], and
- Developing Computational Algorithms and Modeling Techniques [9, 10] to Enable the Optimization of Large-Scale Energy Systems.

At the *materials level*, we seek to identify the best materials for CO₂ capture using multiscale systems approaches.

At the *process level*, our research involves a detailed cost-based comparison of different technologies for post-combustion capture to elucidate the trade-offs between various costs related to capture.

At the *supply chain network level*, the goal is to develop a nationwide CCUS structure that would use the most appropriate source plants, capture technologies and materials, transportation networks, and CO₂ utilization and storage sites.

The Texas A&M Energy Institute seeks funding to determine if it is possible to achieve net-zero emission energy technologies via developing novel and cost-effective CCUS technologies. To address this question, our work in CCUS will extend across the levels of materials, processes and supply chains, and will have four major research thrusts and one education thrust:

Thrust 1: Novel CCUS Processes for Decarbonizing Energy and Industrial Sectors

Thrust 2: Novel Direct Air Capture (DAC) Materials and Processes for Decarbonizing Hard-to-decarbonize Sectors

Thrust 3: Novel CCUS Supply Chains for Mitigating Greenhouse Gas Emissions in the U.S.

Thrust 4: Algae-based Carbon Capture and Utilization to Transform Economics and Environmental Impacts

Thrust 5: Educational and Workforce Development Offerings on CO₂ Capture and Sustainability

The duration of this project is 3 years and the total cost is expected to be approximately \$1 million.

Project Description:

As depicted in the figure at right (Figure 1), this hypothetical overall view of a CCUS system presents an example opportunity to design a complex system where CO₂ is captured at widely dispersed point emission sources and then transported to sequestration sites for storage or usage. However, such approaches may not present the best opportunity for overall reduction of carbon.

In the U.S., CO₂ is emitted from a variety of stationary sources (Figure 2), and today, estimated CCUS costs vary significantly depending on source concentrations and CO₂ volumes.

These costs may well be too high even under today's estimated social cost of carbon, which was recently set at \$51/tonne. Significant research and development efforts are required to reduce CCUS costs. Designing optimal CCUS schemes is a multiscale problem that requires materials discovery, innovative capture process development and CO₂ source adaptation. It also requires supply chain development encompassing capture/storage/EOR site selection, CO₂ pipeline network design, storage suitability appraisal and optimal source, injection site and pipeline route selection, as well as safety enhancement.

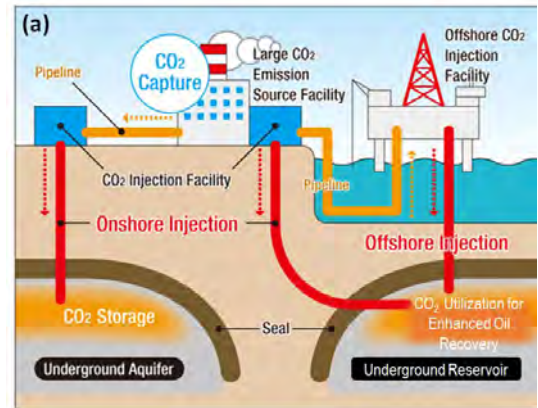


Figure 1: A conceptual depiction of CCUS.

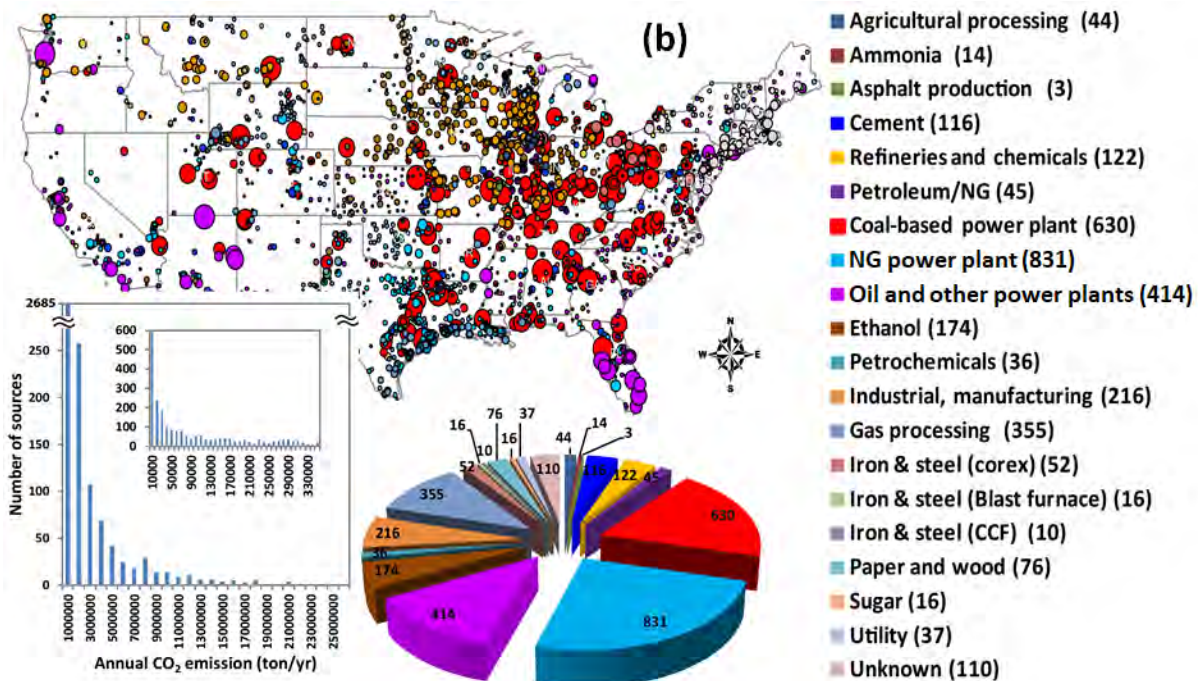


Figure 2: The distributed, diverse, and static CO₂ sources in the United States pose both challenges and opportunities.

The Texas A&M Energy Institute's work in CCUS extends across all three levels of materials, processes, and supply chains (Figure 3) and has the following five major research thrusts:

Thrust 1: Novel CCUS Processes for Decarbonizing Energy and Industrial Sectors

The exact composition of emissions from power plants, cement plants, and other point sources vary in CO₂ and other pollutant composition, as well as flow rate.

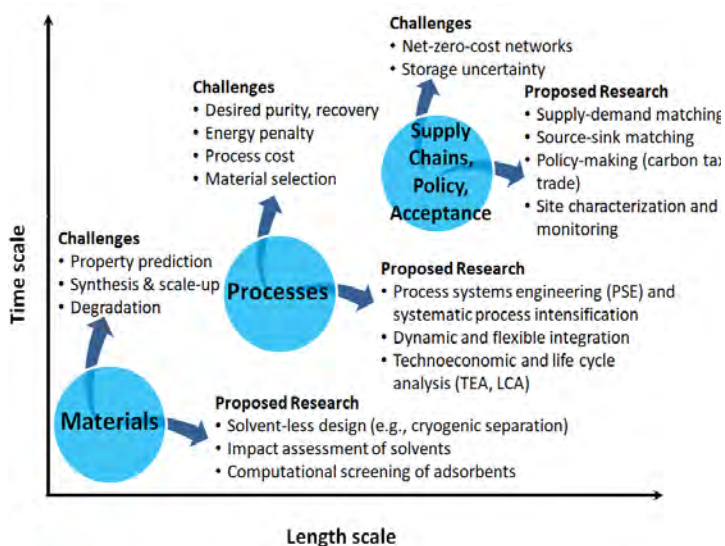


Figure 3: Proposed multiscale, multidisciplinary CCUS research.

The cost of separation decreases as a function of flue gas CO₂ concentration. For a capture process to be feasible in terms of capture efficiency and scalability for all source types, it must be properly designed and tailored to accommodate the site-specific characteristics of the flue gas stream from which the CO₂ is to be captured.

In addition, the process must be flexible to enhance integration, lower cost, and improve life cycle assessment (LCA) characteristics. To overcome the above challenges, Texas A&M Energy Institute faculty affiliates have developed multiple low-cost, low-input, patent-pending CO₂ capture technologies. For example, CryoL™ is a novel cryogenic liquefaction technology that removes CO₂, SO₂, and NO_x from power plant flue gas. Compared to other processes, CryoL™ consumes less energy because significant energy integration is employed. Moreover, the use of waste heat also improves the energy efficiency of the process. The current estimated capture cost is less than \$25/tonne CO₂ without including credits for eliminating SO₂ and NO_x scrubbers.

Under this project, we will continue the development and adaptation of TAMU-developed novel CO₂ capture processes that efficiently use waste heat and tailor capture procedures to diverse emission sources that exhibit varying CO₂ and other pollutant concentrations and flow rates.

The duration of Thrust 1 is 3 years and the cost is \$250,000.

Thrust 2: Novel Direct Air Capture (DAC) Materials and Processes for Decarbonizing Hard-to-decarbonize Sectors

Aside from the removal of carbon from high-density streams or sources, scientists and engineers have been investigating the viability of large-scale carbon capture directly from the air. Called Direct Air Capture (DAC), these processes require high volumes of air moving over a porous material that selectively “collects” the CO₂ (or other carbon-based gases) for storage and/or transport.

The goal of this thrust is to perform studies on understanding and developing a state-of-the-art, holistic approach to evaluate DAC systems which can be foundational towards enabling future research and development for process scale-up, techno-economic benefits, and cost analysis. For example, we consider adsorption-based DAC using porous chemical sorbents, especially porous polymer networks (PPNs), which show great potential in terms of technological feasibility and economics for DAC.

We will perform a literature survey on current developments in materials, processes, and technologies. We will conduct laboratory experiments on selected PPNs and procedures and collect data. We will also perform model-based techno-economic feasibility of various options for CO₂ capture on selected PPNs, contactor designs, regeneration methods, and synthetic air compositions.

The overall objective will be achieved by:

- (i) Broad investigation of known chemical sorbents with CO₂ capture ability;
- (ii) Bench-scale and large-scale sorbent preparation and characterization;
- (iii) Efforts on optimizing DAC performance;
- (iv) CO₂ capture process modeling; and
- (v) Process systems analysis of various capture systems.

These efforts will eventually lead to opportunities to pilot-test materials, processes, and designs for eventual scaling to commercially and economically viable carbon reduction.

The duration of Thrust 2 is 3 years and the cost is \$300,000.

Thrust 3: Novel CCUS Supply Chains for Mitigating Greenhouse Gas Emissions in the U.S.

As scientists, corporations, and innovators seek to make progress on CCUS and the scaling of their efforts, uncertainty is arising on the impacts of climate change, along with uncertainties about supply chain factors, and presenting new questions, such as:

- What is the best way to capture CO₂ from diverse emission sources?
- How can we achieve a specified GHG reduction target under technological and geological uncertainties?
- What are the best materials, processes, and technologies for CCUS under uncertainty?

- How do we strategically plan for the long-term development and implementation of large-scale CCUS supply chain networks?

The objective of this research thrust is to develop novel, generalized models and efficient optimization methods for the optimal design of large-scale CCUS supply chain networks.

We will develop models, algorithms, and a robust optimization method for the strategic planning of CCUS supply chain networks. This will help accelerate strategic policy-making toward reducing global warming and climate change. Addressing both technological and geological uncertainties for emerging technologies is the next frontier of scientific research toward enabling clean energy from fossil fuels.

We propose novel methodologies for the design of large-scale CCUS networks under uncertainty related to technological development and cost, and geological storage capacities. We will develop:

- (i) Generalized models and efficient optimization frameworks for the optimal design of CCUS supply chain networks;
- (ii) Robust optimization (RO), stochastic programming (SP), and conditional value-at-risk-based methods (CVAR) for the CCUS supply chain network models under parameter uncertainty; and
- (iii) Models, algorithms, and a robust optimization method for long-term strategic planning.

Novelties of the proposed research include

- (i) Methods for the design and strategic planning of CCUS supply chain networks;
- (ii) Elucidation of robust and flexible CCUS supply chains for nationwide, statewide, and regional CCUS schemes under technological cost and geological storage uncertainties;
- (iii) A novel, reduced scenario-based conditional CVAR method to address CCUS under uncertainty; and
- (iv) Methods based on CCUS optimization to select the correct sources, sinks, materials, and process technologies, and construct the correct pipelines for large geographic locations.

After these efforts, the team hopes to be able to provide decision-makers with the tools to address the questions mentioned above and guide investments, infrastructure, and the advancement of CCUS efforts.

The duration of Thrust 3 is 3 years and the cost is \$250,000.

Thrust 4: Algae-based Carbon Capture and Utilization to Transform Economics and Environmental Impacts

Flue gas, generated at combustion-based power plants (such as natural gas-fired and coal-fired) is a popular target for efforts to decarbonize power production and industries. Recent efforts have identified this historical waste product as a strong candidate for use in algal cultivation, which can then yield value-added products that are both economical and effective at carbon reduction.

This research thrust aims to overcome technical barriers by integrating and scaling-up cutting-edge technologies for algae-based carbon capture and utilization (CCU), which will then be followed by techno-economic analysis and life cycle evaluation for commercialization.

The efforts will focus on identifying innovations in CO₂ capture, nutrient and bicarbonate delivery, algal pathways to value-added products, and a rapid growth cultivation system through innovative research such as:

- (i) Developing disruptive algal cultivation technology that overcomes growth-limiting mutual shading and potentially increases CCU capacity significantly (up to 8 times);
- (ii) Developing an interface between captured flue gas and algal cultivation through innovative CO₂/bicarbonate storage and controlled release;
- (iii) Synthesizing a low-cost hydrogel to achieve optimal nutrient and pH-controlling bicarbonate delivery, to maximize the carbon utilization efficiency, and to avoid extreme pH for CO₂ storage in media, enabling high yielding algae species;
- (iv) Utilizing an engineered algae strain (UTEX 2973) that exhibits auto-sedimentation and allows cost-effective continuous cultivation with constant or periodical harvesting that greatly reduces growth-inhibiting shading and improves productivity; and
- (v) Implementing machine learning, process control, techno-economic, and life-cycle analyses to maximize growth rates, coordinate CO₂ release, and allow continuous cultivation and low-cost harvesting. Furthermore, the team's understanding of the interfacing with coal-fired flue gas allows us to exploit existing technologies such as activated carbon available in CCCU to remove SO_x, NO_x, heavy metals, and particulates that are toxic to algae growth.

Through the integration of these innovative measures, the team hopes to deliver transformative, sustainable, highly productive, efficient, cost-effective algal-based CCU.

The duration of Thrust 4 is 3 years and the cost is \$150,000.

Thrust 5: Educational and Workforce Development Offerings on CO₂ Capture and Sustainability

The Texas A&M Energy Institute has developed educational programs as a part of its Interdisciplinary Curricular Program in Energy (such as the Master of Science in Energy, as well as the Certificate in Energy), that are designed to create the next generation of leaders in energy.

These programs target 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 multiscale systems-based approaches.

The objective of this thrust is to develop coursework, available to graduate students at Texas A&M University, as well as continuing education courses available to working professionals, that focus on:

- Greenhouse Gas Emissions and Reduction Techniques
- Climate Change and Sustainable Development
- Carbon Capture
- Carbon Utilization
- Geologic Carbon Storage
- Non-Geologic Carbon Storage

After one year of coursework development, the Texas A&M Energy Institute will devote one year to piloting the coursework with students and professionals, refining the curriculum as appropriate.

The duration of Thrust 5 is two years (1 year of development and 1 year of pilot testing) and the cost will be approximately \$50,000.

Budget Justification

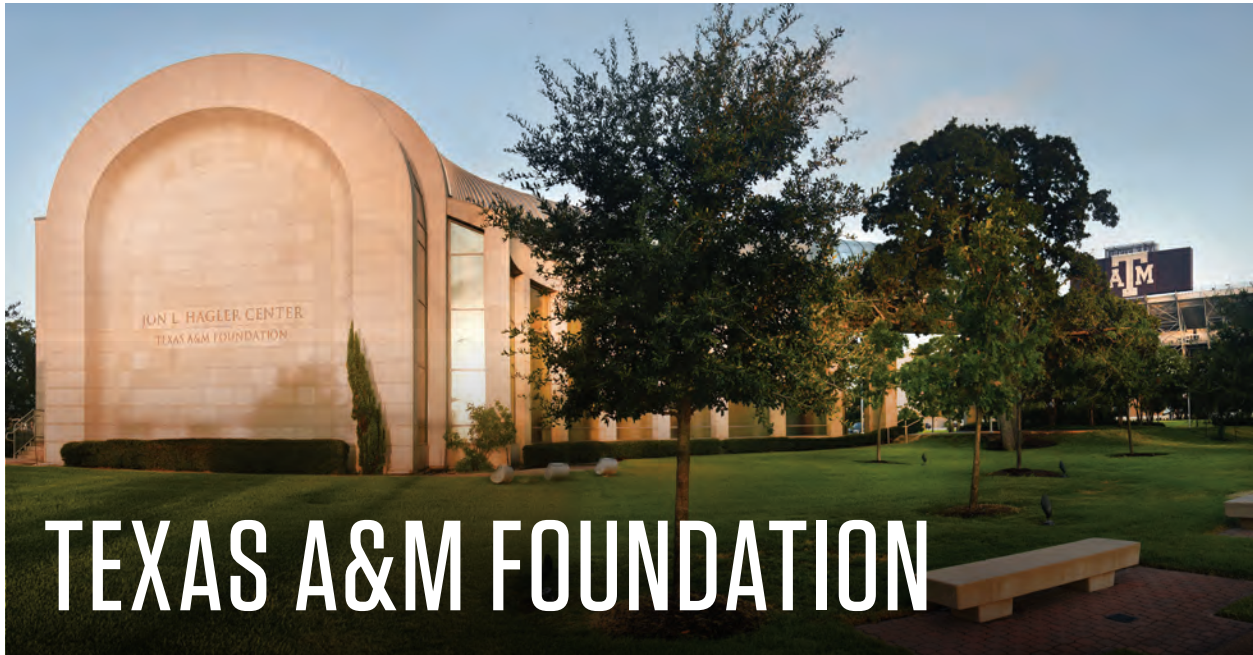
During the three-year duration of the project, it is expected that faculty members and senior personnel will collectively devote approximately 6 person-months of effort, and the total cost for faculty participation will be approximately \$150,000, including travel.

In addition, four graduate students will collectively work on the four research thrusts for approximately 24 full-time-equivalent person-months per year for years 1-3. The total cost for their participation (salaries, fringe, tuition & fees) will be approximately \$850,000, including travel and equipment.

In total, it is expected that these efforts will, over the three-year duration, require funding of \$1 million.

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To be among **the most trusted philanthropies** in higher education.

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As of 12/31/2020, the Texas A&M Foundation had \$2.21 billion in assets under management. For the one-, five- and 15-year periods ending December 31, 2020, the Foundation achieved annualized returns (net of investment fees) of 12.7%, 9.7% and 6.9%, respectively.

All contributions should be made payable to the Texas A&M Foundation and mailed to:

TEXAS A&M FOUNDATION

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THAT TEXAS A&M CONTINUES TO GIVE
YOUNG PEOPLE THE OPPORTUNITY FOR
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PRICELESS AGGIE EXPERIENCE.

