LOUISIANA BOARD OF REGENTS
BOARD OF REGENTS SUPPORT FUND

REVIEW OF COMPETITIVE PROPOSALS SUBMITTED FOR FUNDING CONSIDERATION IN THE RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)

FY 2025–26 COMPETITION

Board of Regents Support Fund

REPORT OF THE FINAL PANEL
BOARD OF REGENTS SUPPORT FUND
RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)
FY 2025–26

BACKGROUND INFORMATION

Two hundred twenty-eight (228) proposals requesting a total of $31,342,939 in first-year funds were submitted for funding consideration in fiscal year (FY) 2025–26 to the Research Competitiveness Subprogram (RCS) of the Board of Regents Support Fund (BoRSF). Seven (7) disciplines were eligible, including Biological Sciences I, Biological Sciences II, Chemistry, Computer & Information Sciences, Earth & Environmental Sciences, Engineering B, and Health & Medical Sciences.

THE REVIEW PROCESS

The proposals submitted were reviewed by discipline-based panels. The chair of each review panel represented their discipline on the final panel and submitted written reports with priority rankings of highly recommended proposals to the final panel chair, Dr. Jeffrey Dean, Assistant Provost at the University of Georgia and Campus Director at UGA Griffin.

After careful consideration of all panel reports during February 2026, the final panel chair highly recommended nineteen (19) proposals be funded for a total of $2,090,000 in first-year funds based on monies projected to be available.

Table I of this report contains the rank-order list in each discipline category of all proposals highly recommended for funding. Table II lists the final panel chair and contributing consultants comprising the seven (7) discipline-based review panels. These are followed by a compilation of written comments submitted by the discipline-based review panels for each of the highly recommended proposals. Due to proportion of available funds relative to the large total request, the majority of awarded proposals are recommended for partial funding. All budget reductions recommended by the review panelists are to be made at the discretion of the principal investigator(s) unless specifically stipulated in the panel comments.

All proposals will receive debriefing material summarizing reviewer assessments of the project in July 2026, to assist applicants in development of submissions to other grant opportunities. These materials will be distributed via the PI LOGAN account used to submit the original proposal.

Table I

RCS Proposals Highly Recommended for Funding

Proposal #	Institution	PI	Request	Recommendation
Biological Sciences I				
104A-26	LaTech	Zhou	$166,816	$125,000
009A-26	LSU Ag	Flasco	$185,303	$130,000
087A-26	LSUHSCS	Ander	$60,000	$60,000
Biological Sciences II				
219A-26	UNO	Claramunt	$168,268	$125,000
139A-26	Tulane	Gunderson	$150,834	$100,000
061A-26	LSU A&M	Moyo	$120,097	$90,000
015A-26	LSU Ag	McKinley	$100,850	$25,000
Chemistry				
080A-26	LSU A&M	Wagner	$51,148	$50,000
121A-26	NSU	Sissay	$31,831	$31,766
032A-26	LSU A&M	Elgrishi	$78,354	$78,354
124A-26	SLU	Chanda	$83,686	$75,000
Computer and Information Sciences				
033A-26	LSU A&M	Farheen	$73,926	$73,926
036A-26	LSU A&M	Anaraky	$183,668	$183,668
Earth and Environmental Sciences				
011A-26	LSU Ag	Fu	$199,999	$192,512
Engineering B				
065A-26	LSU A&M	Pang	$177,988	$177,988
079A-26	LSU A&M	Veronis	$143,613	$143,613
097A-26	LaTech	Nixon	$68,173	$68,173
Health and Medical Sciences				
162A-26	TUHSC	Lu	$200,000	$180,000
164A-26	TUHSC	Ginocchio	$200,000	$180,000
RCS Total Funds			**$2,444,554**	**$2,090,000**

Table II

FY 2025–26 Research Competitiveness (RCS) Subprogram Panelists		
Name	**School**	**Discipline**
Final Panel		
Jeffrey Dean, chair	University of Georgia	Plant Pathology
Biological Sciences I		
Blake Wiedenheft, chair	Montana State University	Biochemistry, Microbiology
Sudha Sharma	Howard University	Biochemistry, Pathology
Manoj Mishra	Alabama State University	Pathology, Cell/Molecular Biology
Ember M. Morrissey	University of West Virginia	Microbiology
Biological Sciences II		
Bette Loiselle, chair	University of Florida	Ecology, Zoology
Joanna Joyner-Matos	Eastern Washington University	Zoology, Physiology
Jill Anderson	University of Georgia	Ecology, Genetics
Chemistry		
Louisa Hope-Weeks, chair	University of Nevada-Reno	Chemistry
Meenakshi Dutt	Rutgers University	Physical Chemistry
Ryan Trovitch	Arizona State University	Inorganic/Organic Chemistry
Computer and Information Sciences		
Kai Zheng, chair	University of California-Irvine	Informatics
Jaudelice de Oliveira	Drexel University	Cyber Security, Computer Engineering
Deepak Kumar	Bryn Mawr College	Artificial Intelligence, Robotics
Xumin Liu	Rochester Institute of Technology	Data Science, Artificial Intelligence
Earth and Environmental Sciences		
David Eggleston, chair	North Carolina State University	Marine Ecology, Conservation
Laodong Guo	University of Wisconsin-Milwaukee	Chemical Oceanography
Patrick Rafter	University of South Florida	Marine Sciences, Geosciences
Engineering B		
Prahalada Rao, chair	Virginia Tech University	Industrial/Materials Engineering
Pradeep Menezes	University of Nevada-Reno	Mechanical/Materials Engineering
Prashanta Dutta	Washington State University	Mechanical Engineering
Ramin Moghaddass	University of Miami	Industrial/Systems Engineering
Bin Li	Iowa State University	Materials Engineering
Health and Medical Sciences		
Gerald Sonnenfeld, chair	Research Administration, Retired	Immunology
Frank Wong	Florida State University	Public Health
Richard Pollard	University of California-Irvine	Infectious Diseases
Xiaohui Xu	Texas A&M Health Sciences Center	Epidemiology

FY 2025–26 Research Competitiveness Program

Priority Ranking of Proposals Highly Recommended for Funding

Biological Sciences I

Proposal #	104A-26
Institution	Louisiana Tech University
PI	Weinan Zhou
Title	Role of Adipokines in Cholestatic Liver Diseases
Requested	$166,816
Recommended	$125,000

This proposal explores the lack of mechanistic understanding of how elevated bile acids in cholestasis alter adipose endocrine function and indirectly drive liver injury. This knowledge gap is well substantiated by prior findings showing bile acid–induced mitochondrial dysfunction, fat loss, and altered adipokine expression, while emphasizing that depot-specific mechanisms and liver–adipose crosstalk remain unknown. The clinical relevance is strong, given the high prevalence and mortality of chronic liver disease, which supports the importance of overcoming this barrier. The use of established cholestatic mouse models, hepatocyte cultures, transcriptomics, and adipokine arrays suggests access to appropriate infrastructure, core facilities, and technical expertise. These resources provide a solid foundation for executing the objectives of the project and generating competitive, high-impact data. Overall, the investigators show strong potential to advance the field and establish a competitive research niche in cholestatic liver disease and metabolic regulation. The study is technically sound and makes a meaningful contribution to basic science by defining the transcriptional and endocrine mechanisms underlying disease progression rather than descriptive associations. The findings could inform novel therapeutic strategies for cholestatic liver disease, giving the research relevance to human health and societal benefit. The PI clearly identifies the central barrier to competitiveness. The project is well positioned to generate data that can form a competitive basis for major federal research awards, especially through NIH basic and translational liver disease funding programs and core centers. Due to limited available funds, partial funding of $125,000 is recommended, with reductions to be made at the discretion of the PI.

Proposal #	009A-26
Institution	Louisiana State University Agricultural Center
PI	Madison Flasco
Title	The Impact of Potyvirus Infection on Phloem Translocation in Sweet Potatoes
Requested	$185,303
Recommended	$130,000

This proposal seeks funds to investigate potyvirus–sweet potato interactions and their impact on phloem translocation. The PI has expertise in virus–vector biology and has excellent institutional infrastructure, including ample molecular diagnostics capacity, growth chambers, and new greenhouse facilities. The proposal clearly identifies key barriers to competitiveness in NSF PBI and USDA AFRI programs as the lack of preliminary data, visibility, and personnel. The PI's early-career publication record and professional roles in academic service are indicative of a successful professional trajectory. This is a well-designed and timely project addressing fundamental aspects of potyvirus movement in an economically important crop that is relevant to Louisiana. The integration of fluorescent phloem tracking with aphid-mediated transmission assays is technically strong, and the objectives are clear and feasible. The work is rigorous, well controlled, and likely to generate publishable results relevant to plant virology and vector biology. A thoughtful plan is provided for achieving competitiveness, emphasizing publications, collaborations, and engagement with program officers, strategies well aligned with early-career success. The budget request is well justified for most aspects of the project and clearly linked to the experimental plan. However, overall supply costs appear higher than necessary for a one-year project of this scope, particularly given the number of repeated assays and the relatively focused experimental design. A modest reduction in consumables and operational costs would make the budget more proportional while still allowing the project to be completed effectively. Partial funding of $130,000 is recommended, with reductions to be made at the PI's discretion.

Proposal #	087A-26
Institution	Louisiana State University Health Sciences Center – Shreveport
PI	Stephanie Ander
Title	MADV as a Non-Select Agent Model for EEEV Interactions with Heparan Sulfate
Requested	$60,000
Recommended	$60,000

This is a highly compelling and technically sound proposal addressing a critical gap in understanding arbovirus-host interactions. The scientific premise is grounded in a well-developed rationale: alphavirus interactions with structurally defined heparan sulfate (HS) motifs influence viral clearance, tissue targeting, and possibly neuroinvasion. The project is technically rigorous, employing chimeric virus construction, targeted basic-patch mutants, a HS glycan array, and a well-established *in vivo* viremia model. The planned studies will determine whether MADV and EEEV bind the same HS structures with similar specificity. The PI demonstrates excellent preparation and a strong track record in arbovirus research, supported by competitive NIH training and fellowship awards. Her postdoctoral work yielded high-impact publications in respected journals, and she has successfully transitioned to an independent position with institutional support, including start-up funds and access to state-of-the-art facilities. The proposal clearly identifies barriers to competitiveness, such as the need for preliminary data to strengthen future NIH/NSF applications, and outlines a plan to overcome them. The rationale is strong: EEEV is a Select Agent, limiting mechanistic studies, and MADV offers a tractable, non-Select Agent model with high sequence homology and conserved HS-binding motifs. The research plan is well structured, with clear objectives. Preliminary data from the PI's prior work on EEEV strongly support feasibility. The proposal convincingly articulates the potential for discoveries in viral pathogenesis and glycan biology, with implications for therapeutic development and vaccine design. The project is highly likely to position the PI for competitive NIH and NSF funding. The proposed studies will generate essential preliminary data for R01-level applications and establish a unique experimental platform for probing HS-mediated viral pathogenesis. The PI's prior success with NIH fellowships and current institutional support suggest her trajectory toward national competitiveness. Funding prospects for this research area are strong, given federal priorities in emerging infectious diseases and host-pathogen interactions. The budget is proportionate to the scope of work and well justified. Full funding is recommended.

Biological Sciences II

Proposal #	219A-26
Institution	University of New Orleans
PI	Santiago Claramunt
Title	Genomic Drivers of Climate Adaptability and Evolutionary Diversification in Birds
Requested	$168,268
Recommended	$125,000

This proposal seeks to investigate the genomic basis of climatic adaptability and diversification in an exciting group of South American birds. The PI hypothesizes that species that occur in cold and dry environments could display signatures of increased adaptability in their genomes. This will be evaluated through the lenses of heterozygosity, nucleotide substitution, transposon activity, and rates of recombination. The proposal addresses timely and relevant issues using cutting-edge techniques and comparative approaches. The background and justification for examining each hypothesized mechanism (heterozygosity, nucleotide substitution, transposons, recombination) are well developed. The study has potential to significantly advance our understanding of genomic bases for adaptability and diversification. The selection of the focal taxa is an excellent model for this preliminary study. This is a previously submitted proposal, and it is greatly improved by the revisions made in response to comments from the panel. The PI identifies the primary barrier to competitiveness as lack of preliminary data and limited experience analyzing whole genome data. The proposed funding would assist the PI in recruiting graduate students, building the lab, optimizing protocols, publishing in this domain, building collaborations, and generating the necessary preliminary data for proposals to federal agencies. The PI has a very strong publication record, expertise in phylogenetics and comparative studies, and a powerful analytical tool set that has resulted in publications advancing methods. The institutional capabilities strongly align with this work, which will not only test important evolutionary and genomic hypotheses but will also generate genomic resources for the identified South American birds. The study system is well justified, as is the research plan. The panel appreciates the inclusion of a paragraph describing the potential limitations and how they could be addressed. This project will generate preliminary data and publications that can be leveraged to submit an NSF proposal to the Evolutionary Processes Cluster of DEB at NSF. The funding prospects for this area of research are high. Due to limited available funds, partial funding of $125,000 is recommended, with reductions to be made at the discretion of the PI.

Proposal #	139A-26
Institution	Tulane University
PI	Alex Gunderson
Title	Investigating Lead (Pb) Mutagenesis in Somatic and Gametic Cells at the DNA Sequence Level in the Brown Anole Lizard Model
Requested	$150,834
Recommended	$100,000

This proposal seeks to establish that lizards have varying lead levels that impact mutagenesis in somatic and germline cells. Overall, this is a well-written, well-organized, detailed proposal that clearly addresses the objectives and instructions of this RFP. It provides feedback from an unsuccessful NIH proposal that was positively reviewed but cited for a lack of preliminary data. Adequate facilities to support the research exist at Tulane; lead analysis, SSM-sequencing and genomic sequencing will be outsourced. The PI is well qualified to lead this effort, having extensive experience with the anole system, which has long been an asset for ecology and evolution studies and recently has been strengthened through the development of genomic tools. The work has potential to further establish the brown anole as a model system for investigating molecular and other impacts due to lead and heavy metal contamination. Its ubiquity in urban areas and the relative ease of capturing and housing, along with existing genomic resources and wealth of other behavioral and ecological data, make the brown anole an attractive species for research. The project represents an expansion of the PI's expertise in this system through collaboration with a consultant. This will allow the PI to build a long-term research program that is of interest to multiple federal funding agencies as well as Louisiana. The sampling design is informed by previous work by the PI and others, including work that addressed human health concerns in New Orleans. The timeline is reasonable, given the number of samples and the analyses to be conducted by external labs/cores. Participation of the consultant who assembled the anole reference genome and the plan to send the PI's graduate student to the consultant for two weeks of bioinformatics work are strengths of the proposal. Saving an array of tissues for future work is another strength, as constraints of this timeline and budget limit the genomic analysis to only three tissues. The potential for high-quality publications from this work is strong. It is a compelling topic that has both basic and applied importance. Lead genotoxicity is of broad interest to multiple federal funding agencies. Continued development of genomic approaches to the anole system will inform disciplines outside of ecotoxicology and should be of interest to NSF and the EPA. Due to limited funds available, partial funding of $100,000 is recommended, with reductions to be made at the discretion of the PI.

Proposal #	061A-26
Institution	Louisiana State University and A & M College
PI	Sydney Moyo
Title	Unravelling the Effects of Aquatic Subsidies on Terrestrial Consumers
Requested	$120,097
Recommended	$90,000

This proposal seeks to understand how highly unsaturated fatty acids in aquatic insects influence spider immune performance, whether spiders can produce HUFAs and whether that comes at a cost, and how nutrients and temperature levels influence HUFA production. The PI is a junior faculty member with a track record in aquatic ecosystem ecology. Seven barriers to competitiveness are listed, including a lack of preliminary data, and a strong plan for overcoming them is provided. The proposal addresses feedback from a previous RCS proposal and two unsuccessful federal submissions. The work plan includes collaborations with researchers at the Stroud Water Research Center, and the plan to send stable isotope samples out for analysis allows the PI to propose a multi-faceted project. The work will produce essential preliminary data in a new research area for the PI, strengthen collaborations, and enable mentorship of graduate students. The proposal has a robust conceptual framework, with clearly articulated hypotheses and predictions, and is likely to be completed within the 12-month timeline. The plan combines field sample, feeding trials, and a pilot mesocosm experiment. This is a compelling methodology to examine how nutrient flows from aquatic to terrestrial systems influence terrestrial consumer fitness. The institution has sufficient resources to support this work. With funding, the PI is likely to be able to overcome identified barriers and apply for funding through the Division of Environmental Biology at NSF, among other sources. Due to limited available funds, partial funding of $90,000 is recommended, with reductions to be made at the discretion of the PI.

Proposal #	015A-26
Institution	Louisiana State University Agricultural Center
PI	Erin McKinley
Title	Building Nutrition Research Capacity in Louisiana through Consumer Insights on Functional Mushroom Supplements
Requested	$100,850
Recommended	$25,000

This proposal seeks to develop a Health Belief Model (HBM)-based survey instrument to assess consumer perceptions, motivations, and barriers related to functional food products, with an initial focus on mushroom-based supplements, a rapidly growing segment of the health and wellness market. The PI proposes a shift in research focus, leveraging extensive experience in survey design and interpretation to focus on a topic that has the potential to contribute to Louisiana's agricultural sector while generating a tool that can be used nationwide. The PI identifies the lack of Louisiana-specific data to inform grant proposals as a significant barrier. The proposal defines a straightforward and rigorous approach to creating, validating, and using a survey instrument that will inform the PI's research program and be made available for use by other researchers. There is a strong focus on training students in these methods. The most significant barrier to competitiveness seems to be largely in developing a survey instrument that effectively links behavior and action using the Health Belief Model. This is a well-designed study that should result in solid publications providing the preliminary data and credentials needed for the PI to develop multiple proposals at a later stage. The PI identifies multiple USDA funding programs to be targeted after this pilot study has been completed. Due to limited available funds, partial funding of $25,000 is recommended with reductions to be made at the discretion of the PI.

Chemistry

Proposal #	080A-26
Institution	Louisiana State University and A & M College
PI	Clifton Wagner
Title	Synthesis and Magnetic Characterization of Low-Coordinate Cobalt Dimers of Diazaarenes to Investigate the Interaction of Spin Polarization with High Local Magnetic Anisotropy
Requested	$51,148
Recommended	$50,000

This proposal focuses on the preparation of bimetallic single-molecule magnets (SMMs), investigating the hypothesis that modifying the position of nitrogen atoms within the ligand structure can tune the coupling observed between metal centers. The project is led by an early-career PI who has considerable experience in the synthesis of air-sensitive metal complexes and access to the instrumentation required to perform the proposed experiments. The barriers to competitiveness are clearly identified. The research plan is logically structured from synthesis to magnetic characterization, and the proposed efforts can likely be completed within one year. A significant number of bimetallic compounds have already been synthesized and characterized, which inspires confidence that the targeted compounds will also be prepared. The preliminary results and aims are technically sound and have the potential to contribute to the design of SMMs. The PI has been actively applying for NSF and PRF support, in addition to RCS. The challenge in preparing successful proposals is due, in part, to the noted lack of a publication track record. The results from this project will support the PI's pending NSF CAREER application. The proposed experiments should help the PI to generate data, and, most importantly, a publication, which will address past reviewer concerns. The budget is efficient and reasonable. Partial funding of $50,000 is recommended, with reductions to be made at the discretion of the PI.

Proposal #	121A-26
Institution	Northwestern State University
PI	Adonay Sissay
Title	Propagator Mixed with Machine Learning for the Time-Dependent Kohn-Sham Equations
Requested	$31,831
Recommended	$31,766

The applicant proposes a more efficient way to solve the Schrodinger equation through machine learning using time-dependent density functional theory (TD-DFT). TD-DFT works well for small systems, but it is prohibitively expensive for larger molecule systems. The PI will employ Fourth Order Runge-Kutta (RK4) to integrate TD-DFT and ML matrices to create a hybrid ordinary differential equation solver to solve large-density matrices with longer time-steps. It is a challenging project but, if successful, will have a significant impact on the scientific community. This early-career PI has extensive experience with TD-DFT and demonstrates a solid understanding of the technical aspects of the proposed aims. The proposal outlines an excellent research plan with clear goals to ensure future competitiveness for federal funding. The project is technically sound and will result in a new way to accelerate TD-DFT calculations. This will increase the size of the molecules that can be studied using this approach. The successful completion of the project will impact quantum mechanical calculations for larger-sized molecules in various domains. The project will also train undergraduate students in mathematics and computing coupled with chemistry and physics, thereby building a pipeline of students to join the STEM workforce and graduate programs. Involving undergraduates in a high-demand research area can potentially help to address a larger workforce need, enhancing the project's appeal to federal agencies. The PI intends to use this project to apply for an NSF grant focused on improving undergraduate STEM education. Due to budget constraints, a small reduction is recommended, resulting in funding of $31,766. Reductions may be made at the discretion of the PI.

Proposal #	032A-26
Institution	Louisiana State University and A & M College
PI	Noemie Elgrishi
Title	Targeting Enhanced Cost-Effectiveness and Selectivity of Molecular Sponges for PFAS Removal
Requested	$78,354
Recommended	$78,354

This proposal to develop molecular sponges for PFAS removal demonstrates strong scientific merit. The approach to synthesizing and testing new molecular sponges for PFAS removal is technically sound and addresses a critical environmental challenge. The plan to evaluate the use of first-row transition metals introduces an innovative and cost-effective strategy, which could lead to significant advances in water purification technology. This research has the potential to generate new discoveries in coordination chemistry and environmental remediation, contributing to both fundamental science and practical applications. The societal relevance of removing persistent "forever chemicals" from water supplies underscores the importance and utility of this work. The lab has established expertise in electrochemistry. The proposal outlines a clear and practical plan to overcome existing barriers to competitiveness. Targeting cost-effectiveness and selectivity and leveraging institutional resources position the project for future federal funding opportunities. The PI's prior success and identification of relevant funding sources further strengthen the likelihood of achieving competitive status. Generating preliminary data during this project will significantly enhance the prospects for securing larger-scale federal support, especially given the growing national interest in PFAS remediation technologies. The budget appears reasonable and well aligned with the scope of work. The allocations for personnel, equipment, and supplies are appropriate for the proposed synthesis and testing activities. Full funding is recommended.

Proposal #	124A-26
Institution	Southeastern Louisiana University
PI	Prem Chanda
Title	Boron Enediolates in the Stereoselective Alpha-Functionalization of Free Carboxylic Acids
Requested	$83,686
Recommended	$75,000

The proposed research is technically sound and grounded in established principles of organic synthesis and mechanistic chemistry. The strategy for generating boron enediolates from free carboxylic acids and converting these intermediates into β-amino- and β-hydroxy-α-functionalized products is scientifically compelling and has the potential to yield new insights into stereoselective reaction pathways. The proposal addresses the PI's barriers to competitiveness with reasonable clarity. The constraints of a primarily undergraduate institution are appropriately acknowledged and represent authentic obstacles to developing an independent, externally funded research portfolio. Institutional capabilities provide a modest but workable foundation to build competitiveness. The proposal outlines a plan that leverages existing departmental support, undergraduate research participation, and available chemical instrumentation sufficiently to initiate the project. Additional details regarding specific institutional resources or core facilities would strengthen this section. The research plan is technically sophisticated, focusing on the stereoselective formation of boron enediolates from carboxylic acids and subsequent conversion to β-amino- and β-hydroxy-α-functionalized carboxylic acids. The PI has demonstrated the chemical expertise to perform this work and recent projects have resulted in publications with undergraduate co-authors, inspiring confidence that quality research can be performed in the current environment. This is reinforced by the PI's history of mentoring 36 undergraduate researchers. The institutional capabilities are adequate, with access to essential instrumentation, and the commitment to provide a 25% teaching load reduction is a clear positive. The project also leverages recent Board of Regents Support Fund investments, including the purchase of a new GC-MS. The research topic aligns well with areas supported by federal agencies such as NSF and NIH, suggesting that the PI can become more competitive for external funding. The budget is reasonable for the scope of work. Partial funding of $75,000 is recommended, with reductions to be made at the discretion of the PI.

Computer and Information Sciences

Proposal #	033A-26
Institution	Louisiana State University and A & M College
PI	Tasnuva Farheen
Title	Pulse-to-Circuit Security: Characterizing and Mitigating Crosstalk Attacks in Multi-Tenant Superconducting Quantum Hardware
Requested	$73,926
Recommended	$73,926

This project explores multi-tenant quantum computing platforms and the issue of potential adversaries manipulating qubits with tailored pulses to deliberately induce errors in neighboring tenants' computations, thus compromising integrity. The proposed work aims to mitigate this issue through modeling crosstalk-induced logical faults and leveraging this information to develop active detection and mitigation mechanisms. The proposal is very well written. The project unifies physics-based modeling, quantum process tomography, and defense-oriented simulation for superconducting systems. The proposed work will establish a physics-accurate understanding of how microwave pulse interference and coupling in superconducting qubits produce deterministic logical faults. Using this information, the project will develop a real-time fault detection mechanism with adaptive compensation at the pulse level. The team has performed solid preliminary work on developing a proof-of-concept characterization framework linking physical interference in superconducting qubits to logical error channels. The PI presents a well-reasoned argument as to why the preliminary work is limited, necessitating the present project. The project's research agenda is bold for a one-year timeline, but it is carefully laid out with differentiation from literature, preliminary work, planned research and deliverables for each subtask. A detailed plan is provided for overcoming existing barriers to achieve competitive status for federal support. Quantum computing systems security is a national priority with several federal agencies providing funding. The federal funding agencies and programs identified in the proposal, including NSF (SaTC, SHF, Quantum Leap), DOE, NIST, and DARPA, as well as industry funders such as Amazon, Google, NVIDIA, and Cisco, are suitable venues for pursuing future funding. The institutional capabilities appear to be adequate. The budget is well designed in accordance with the identified barriers. Full funding is recommended.

Proposal #	036A-26
Institution	Louisiana State University and A & M College
PI	Reza Ghaiumy Anaraky
Title	AI-Powered Multi-Interface Career Support System for Older Adults in Louisiana
Requested	$183,668
Recommended	$183,668

This proposal seeks to develop an inclusive AI-based career support tool to help older adults (65+) prepare for and seek employment opportunities. To accommodate the unique needs of this user population, the system will be available through multiple interaction modalities including smartphone app, web, and text messaging. The project's intellectual merit lies in the comprehensive approach to designing the AI-driven heterogeneous career platform, which accounts for psychological aspects such as motivation and resilience. This is achieved by integrating principles from self-determination theory, which argues that well-being is supported by autonomy, competence, and relatedness. Within the projected one-year timeline, the research team will develop and test a prototype of the system. This will produce preliminary data, a validated AI prototype, and a track record of funding and publications to increase competitiveness. The research plan is carefully laid out and will likely lead to advancements in relevant scientific fields by developing and validating a new socio-technical framework for older adults. The team will work with technology transfer entities such as Nexus Louisiana to explore commercialization pathways. The plan for overcoming barriers to federal competitiveness is well articulated. The federal funding agencies and programs identified, including the National Institute on Aging, NSF Human-Centered Computing (HCC) and Science of Learning and Augmented Intelligence (SL), are proper venues for pursuing future funding. Based on the importance of the topics addressed in the proposal (AI, workforce re-entry, healthy aging) and robustness of the approaches, this line of work should have a high likelihood of successfully competing for funding grants. The PI has extensive experience in conducting research in the areas of human–computer interaction (HCI) and geron-technology. In addition, the PI has connections with several local community organizations for participant engagement and recruitment. The institutional capabilities appear to be adequate. The budget is appropriate. Full funding is recommended.

Earth and Environmental Sciences

Proposal #	011A-26
Institution	Louisiana State University Agricultural Center
PI	Peng Fu
Title	From 30 m to 3 m: Cross-Sensor Mapping of Coastal Wetland Aboveground Biomass Change and its Drivers Using HLS and PlanetScope
Requested	$199,999
Recommended	$192,512

This research team seeks to demonstrate the feasibility of an AI-based framework for monitoring aboveground biomass (AGB) and AGB change (ΔAGB) in Louisiana's coastal herbaceous wetlands. The project will generate biomass change maps (modeled) of coastal wetlands with validation from field measurements and utilize Coastal References Monitoring System (CRMS) data to understand processes underlying changes in biomass and factors driving coastal inundation. The barriers to competitiveness are identified and reviewer concerns from an unfunded NASA application are directly addressed. The combined expertise of the PI, Co-PIs, postdoctoral researcher, graduate student, and NASA collaborator integrates into the project skills across remote sensing, AI modeling, wetland ecology, hydrology, and field science. The participating institutions – Louisiana State University AgCenter, Louisiana Universities Marine Consortium (LUMCON), and NASA GSFC/UMBC – offer complementary resources that ensure the project can be carried out effectively without the need for major new investments. This is a highly interdisciplinary team with a track record of support from relevant funding agencies. The proposal aligns with NASA Earth Science Priorities. Partial funding of $192,512 is recommended.

Engineering B

Proposal #	065A-26
Institution	Louisiana State University and A & M College
PI	Zhihong Pang
Title	Privacy-Aware Data-Driven Energy Management for Smart and Resilient Communities
Requested	$177,988
Recommended	$177,988

The PI seeks support for research that focuses on developing privacy-aware smart energy frameworks for Louisiana and Gulf Coast communities. The core concept is to allow households to control how much data they share by using a privacy-risk quantification framework, while still enabling accurate prediction and grid control. The project integrates privacy metrics, adaptive control strategies under limited data, and community engagement to model user preferences and develop incentive and policy pathways for resilient, trustworthy energy systems. Technically, the proposal is very strong. It clearly defines the privacy–utility tradeoff and outlines concrete deliverables, including risk metrics, adaptive control algorithms, tradeoff frontiers, and a practical dashboard/toolkit. The execution plan is well organized, feasible, and structured as an end-to-end pipeline that can be completed within the project period. The proposal cites the barriers to competitiveness with exceptional detail. The PI is highly qualified with an extensive publication record that strongly supports the planned work. The motivation, goals, and objectives of the project are articulated at an outstanding level, and the proposal is written with clarity and completeness. The only notable omission is an explicit hypothesis, which would strengthen the project's alignment with federal expectations, particularly for NSF. The budget is appropriate with no identified concerns. Overall, with minor refinements, the proposal is exceptionally well positioned for federal funding and is close to being fully competitive at the national level. Full funding is recommended.

Proposal #	079A-26
Institution	Louisiana State University and A & M College
PI	Georgios Veronis
Title	Optimized Nanophotonic Platforms for High-Sensitivity Orientation Imaging of Single Molecules via Second Harmonic Generation
Requested	$143,613
Recommended	$143,613

The project's primary objective is to design, fabricate, and characterize nanoplasmonic structures optimized for enhanced second harmonic generation (SHG), with broad applications in imaging biological cells and tissues. A key strength of the project is its integration of computational and experimental methods. The team employs a genetic global optimization algorithm informed by full-wave electromagnetic simulations to design nanoplasmonic platforms, supported by complementary expertise across the investigators. The research plan is technically sound and includes convincing preliminary data. The proposal identifies a single major barrier to competitiveness: the need to generate additional preliminary results. The plan to overcome this is strong and will likely make this research federally competitive. The institutional support is adequate. The PI has the appropriate training and a strong academic record, positioning them well to execute the project. New discoveries in nanoscience and biomolecular science are likely, and the overall impact of the project is expected to be significant. Contributions to fundamental science will be moderate, but the outcomes have clear utility for biotechnology communities. Although a similar proposal previously received a "good/very good" rating from a federal agency, the enthusiasm appears to have been limited. Nevertheless, the funding potential for this research area remains promising. Full funding is recommended.

Proposal #	097A-26
Institution	Louisiana Tech University
PI	Kevin Nixon
Title	Investigating the Structure-Property-Performance Relationships in Bio-Derived Sulfonated Block Polymers for Proton Exchange Membrane Applications
Requested	$68,173
Recommended	$68,173

This PI seeks to highlight the potential of bio-based sulfonated block polymers as high-performing proton exchange membranes by synthesizing sulfonated block polymers from bio-derivable monomers and investigating the role of monomer structure and polymer composition on proton transport. The proposal presents a clearly articulated and compelling research plan, and the requested funding is essential for the PI to establish a distinct and independent academic identity. The PI is highly qualified, demonstrating strong expertise in polymer science and the technical capability required to lead the proposed work. The narrative identifies key early-career barriers, including the lack of preliminary data and a limited presence in the academic community. The proposal is very well written. The goals, objectives, hypotheses, and methodologies are presented with exceptional clarity, even for non-experts. The PI offers a strong overview of the state of the art, well-defined performance metrics, and a detailed project timeline. The research has the potential to generate impactful discoveries in both fundamental and applied science within chemistry and materials science. However, the broader impacts and societal relevance could be developed more explicitly to strengthen the proposal further. Overall, the project appears likely to produce the data needed to become highly competitive for an NSF CAREER award. It incorporates all core elements expected of an early-career faculty member: a coherent research vision, a plan to obtain preliminary data, and a strategy for enhancing visibility and independence through conference participation and publication. The anticipated results will improve the PI's future funding prospects and contribute meaningfully to the growth of their research program. The budget is reasonable. Full funding is recommended.

Health and Medical Sciences

Proposal #	162A-26
Institution	Tulane University Health Sciences Center
PI	Hua Lu
Title	Development of c-di-GMP as an Anti-Metastatic Breast Cancer Therapy by Targeting the PSMD3-TBK1-NF-κB Signaling Axis
Requested	$200,000
Recommended	$180,000

This proposal seeks a new method of treatment for triple negative resistant breast cancer. The team will test *in vitro* using a mouse model and can perform studies on drug concentrations and pharmacokinetics. They will also use tumor cell cultures to do additional testing. The barriers to federal competitiveness are carefully outlined. The research plan is very detailed and well articulated. Multiple avenues are proposed for evaluating the newly identified inhibitory pathway. The institutional environment is outstanding. The shared resources of the Tulane Cancer Center are leveraged. This is a stellar investigative team with expertise to carry out the proposed study. The animal models utilized are innovative. If successful, this work will represent significant progress in the treatment of resistant tumors. The project could also provide data that would be important in other tumor applications. This should lead to significant new funding opportunities. The budget is appropriate. Due to limited available funds, partial funding of $180,000 is recommended.

Proposal #	164A-26
Institution	Tulane University Health Sciences Center
PI	Maria Pereda Ginocchio
Title	Phase 1 Trial of Ruxolitinib Added to Conditioning for Haploidentical or Mismatched Unrelated Donor Transplantation in Relapsed or Refractory Idiopathic Severe Aplastic Anemia
Requested	$200,000
Recommended	$180,000

This proposal seeks to assess whether the immunosuppressive effects of Ruxolitinib can mitigate immune-mediated graft rejection, thereby reducing or eliminating total-body irradiation without increasing the risk of graft failure. The PI will explore Ruxolitinib as a conditioning adjunct in haploidentical or MMUD transplant for SAA. It may address the significant gap in care for SAA patients who lack matched donors, by providing a safer, more accessible transplant approach with reduced toxicity. This work has high public health significance. The evidence from the experimental studies is solid and supports this Phase 1 trial. The primary and secondary goals of the trial are clearly defined. The exclusion and inclusion criteria for patient recruitment are well described. The PI, a pediatric bone marrow transplant physician with a clinical and research focus on improving outcomes for children undergoing allogeneic hematopoietic stem cell transplantation, has strong potential to compete successfully for federal funding. The barriers to funding are clearly identified. The Tulane University School of Medicine and the Manning Family Children's Hospital in New Orleans provide a strong academic and clinical foundation for this proposed trial. This project will likely result in federal funding, including NIH K awards. The budget is appropriate. Due to limited available funds, partial funding of $180,000 is recommended.

Appendix A

List of Proposals

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
001A-26	Dr. Ellyn Evans	Biological Sciences I	Centenary College	Examining Antimicrobial Resistance [AMR] in Northwest Louisiana: How can we track AMR and what are the stress tolerance mechanisms among environmental microbes?	$57,900
002A-26	Prof. Tomekia Simeon	Chemistry	Dillard University	Data Science Equity, Access and Project for Research and Education [DEAP] using Data Innovation for Visionary Exploration [DIVE]	$157,211
003A-26	Dr. Prakash Meppaloor Gopalakrishnan Nair	Biological Sciences I	Grambling State University	Enhancing antimicrobial efficacy of antibiotics through conjugation with biosynthesized gold nanoparticles	$64,398
004A-26	Prof. Haeyeon Yang	Engineering B [Industrial, Materials, Mechanical, etc.]	Grambling State University	Study of Quantum Dot Molecules	$98,595
005A-26	Dr. Holly Andrews	Biological Sciences II	Louisiana State University Agricultural Center	Nitrous oxide emissions during soil drying and wetting cycles: When, how, and from whom?	$149,863
006A-26	Dr. Kayanush Aryana	Biological Sciences I	Louisiana State University Agricultural Center	Influence of Leaky Gut-Healing Bioactive Compounds on the Acid and Bile Tolerances of Probiotic Microorganisms	$140,545
007A-26	Dr. Brayden Blanchard	Biological Sciences II	Louisiana State University Agricultural Center	Integrating High-Throughput Phenomics with Genomic Selection for Early Clonal Stage Selection in the LSU AgCenter Sugarcane Breeding Program	$199,475
008A-26	Prof. Kenneth Bondioli	Biological Sciences I	Louisiana State University Agricultural Center	Mural-granulosa like co-culture to investigate the molecular determinants of oocyte and embryo quality	$103,920
009A-26	Dr. Madison Flasco	Biological Sciences I	Louisiana State University Agricultural Center	The impact of potyvirus infection on phloem translocation in sweetpotatoes	$185,303
010A-26	Dr. Kaelyn Fogelman	Biological Sciences II	Louisiana State University Agricultural Center	Enhancing Louisiana's Crayfish Research Capacity: Nutritional and Physiological Foundations for Growth, Survival, and Reproductive Success	$163,949
011A-26	Dr. Peng Fu	Earth/Environmental Sciences	Louisiana State University Agricultural Center	From 30 m to 3 m: Cross-Sensor Mapping of Coastal Wetland Aboveground Biomass Change and Its Drivers Using HLS and PlanetScope	$199,999
012A-26	Dr. Ivan Grijalva Teran	Computer and Information Sciences	Louisiana State University Agricultural Center	Protecting ecosystems with an AI-powered mobile application for invasive species identification	$189,675
013A-26	Dr. Erik Johnson	Biological Sciences II	Louisiana State University Agricultural Center	Assessing migratory connectivity and flight height of migratory birds to assess life-cycle threats	$178,925
014A-26	Prof. Yongchan Kwon	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University Agricultural Center	Establishing cell-free reverse engineering as a platform to study disease-relevant protein pathways	$92,239
015A-26	Dr. Erin McKinley	Biological Sciences II	Louisiana State University Agricultural Center	Building Nutrition Research Capacity in Louisiana Through Consumer Insights on Functional Mushroom Supplements	$100,850

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
016A-26	Dr. Ezgi Ozcan	Biological Sciences I	Louisiana State University Agricultural Center	Modulation of bile acid metabolism in the gut microbiome: A path to reducing neuroinflammation	$141,429
017A-26	Dr. Imana Power	Biological Sciences I	Louisiana State University Agricultural Center	Understanding pathogenicity of Rhizopus stolonifer using double-stranded RNA	$190,000
018A-26	Dr. Vinit Sehgal	Earth/Environmental Sciences	Louisiana State University Agricultural Center	Satellite-based Multiscale Delineation of Louisiana's Terrestrial Ecosystems	$77,101
019A-26	Dr. John Tracy	Biological Sciences II	Louisiana State University Agricultural Center	Application of Terrestrial Laser Scanning to Improve Aboveground Forest Biomass Estimation in Bottomland Hardwood Forests	$90,124
020A-26	Dr. Congliang Zhou	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University Agricultural Center	Development of a Sugarcane Weed Sensing Module Toward Autonomous Spot-Spraying	$199,884
021A-26	Dr. Ahmed Abdalla	Earth/Environmental Sciences	Louisiana State University and A & M College	Advancing coastal subsidence monitoring in Louisiana by integrating InSAR and geodetic data	$125,716
022A-26	Dr. Aakash Bansal	Computer and Information Sciences	Louisiana State University and A & M College	Towards Explainable GenAI Models for Code	$175,656
023A-26	Dr. Mahathir Mohammad Bappy	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Mechanistic Understanding and Physics-Informed Prediction of Fatigue Behavior in Multiscale Metallic Parts Fabricated by Robotic Wire Arc Additive Manufacturing	$75,848
024A-26	Prof. Jader Barbosa	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Turning Idle Wells into Clean Energy Infrastructure: Borehole Heat Exchanger Design for Subsurface Thermal Energy Storage	$73,705
025A-26	Dr. Arup Bhattacharya	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Advanced Modeling of Environmental Control & Life Support for Planetary Surface Exploration [AM-ECLIPSE]	$87,521
026A-26	Prof. Aaron Bivins	Biological Sciences I	Louisiana State University and A & M College	Bacterial Adsorption as a Strategic Control Point for Microbially Induced Corrosion in Industrial Systems	$183,326
027A-26	Dr. Muriel Bruckner	Earth/Environmental Sciences	Louisiana State University and A & M College	Assessing Ecohydrodynamic Drivers of Marsh Restoration: linking real-time inundation with vegetation data across habitat transitions in the lower Mississippi River Delta	$136,993
028A-26	Dr. Ahana Chakraborty	Computer and Information Sciences	Louisiana State University and A & M College	Quantum information processing in open bosonic quantum systems	$120,000
029A-26	Dr. Shengli Chen	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Physics-informed deep learning method for predicting sand production around wellbore in poroelastoplastic rock formations	$101,441
030A-26	Dr. Yuanhang Chen	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	CO2 Mixture Thermophysical Readiness for Multi-Energy Applications - A Preparatory Study	$200,000
031A-26	Dr. Ruyi Ding	Computer and Information Sciences	Louisiana State University and A & M College	AuthLLM: Applicability Authorization to Prevent Misuse of Large Language Models	$108,001

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
032A-26	Dr. Noemie Elgrishi	Chemistry	Louisiana State University and A & M College	Targeting enhanced cost-effectiveness and selectivity of molecular sponges for PFAS removal	$78,354
033A-26	Prof. Tasnuva Farheen	Computer and Information Sciences	Louisiana State University and A & M College	Pulse-to-Circuit Security: Characterizing and Mitigating Crosstalk Attacks in Multi-Tenant Superconducting Quantum Hardware	$73,926
034A-26	Dr. Luiz Felipe Fronchetti Dias	Computer and Information Sciences	Louisiana State University and A & M College	Learning Robot Programming by Conversation	$107,500
035A-26	Prof. Victor Garcia Lopez	Chemistry	Louisiana State University and A & M College	Design, Synthesis, and Antibacterial Evaluation of Mechanically Interlocked Bolaamphiphiles (MIBAs)	$183,956
036A-26	Dr. Reza Ghaiumy Anaraky	Computer and Information Sciences	Louisiana State University and A & M College	AI-Powered Multi-Interface Career Support System for Older Adults in Louisiana	$183,668
037A-26	Dr. Mahmoud Habibnezhad	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Augmenting Worker Situational Awareness through an Egocentric Vision-Based Approach	$126,721
038A-26	Dr. Jaclyn Hadfield	Health and Medical Sciences	Louisiana State University and A & M College	Exercise beliefs and experiences that influence intention to exercise postpartum	$96,821
039A-26	Dr. Hany Hassan	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Examining Drivers' Behaviors and the need for Roadway Design Changes in Mixed Traffic Environment Including Connected and Autonomous Vehicles	$169,729
040A-26	Prof. Aixin Hou	Biological Sciences I	Louisiana State University and A & M College	Exploring the prey range of bacterial predators: fundamental insights into microbial interactions	$152,674
041A-26	Dr. Tingting Hou	Health and Medical Sciences	Louisiana State University and A & M College	A Unified Statistical Framework for Detecting Spatially Variable Genes in Spatial Transcriptomics	$73,499
042A-26	Dr. Brian Irving	Health and Medical Sciences	Louisiana State University and A & M College	DIALOG-OA: Digital Lifestyle Intervention with GLP-1 Receptor Agonists for Osteoarthritis in Adults with Obesity and Type 2 Diabetes	$178,651
043A-26	Dr. Mahmood Jasim	Computer and Information Sciences	Louisiana State University and A & M College	Point, Speak, Investigate: Multimodal Interaction for Early-Stage Exploratory Data Analysis	$74,999
044A-26	Dr. Nina Jiang	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	RoadGuard: AI Agent for Road Damage Detection and Repair Guidance	$167,890
045A-26	Prof. Yoonhwa Jung	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Decomposing and Reverse-Engineering Knowledge in Construction: Addressing Foundational AI Model Gaps in the Architecture, Engineering, and Construction [AEC] Sector	$60,278
046A-26	Dr. Sabarethinam Kameshwar	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Vulnerability of bulk cryogenic hydrogen storage tanks to storm surge and waves	$69,030
047A-26	Dr. Sewoon Kim	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Sustainable Nanofiber Materials from Upcycled Polymers for Drinking Water Treatment	$109,010

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
048A-26	Prof. Dong Lao	Computer and Information Sciences	Louisiana State University and A & M College	Inference-Time Scaling and Customization for Robust Machine Vision	$172,480
049A-26	Dr. Edward Laws	Earth/Environmental Sciences	Louisiana State University and A & M College	Effects of thermal discharges on coastal water quality	$166,157
050A-26	Prof. Kisung Lee	Computer and Information Sciences	Louisiana State University and A & M College	Leveraging Large Language Models for Mobility Forecasting During Disasters	$71,771
051A-26	Prof. Semin Lee	Chemistry	Louisiana State University and A & M College	Development of Synthetic Receptors for Lithium-Ion Separation	$56,621
052A-26	Prof. Slawomir Lomnicki	Earth/Environmental Sciences	Louisiana State University and A & M College	VOCs emissions from 3D printing devices. Development of assessment method	$199,053
053A-26	Dr. Furkan Luleci	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Scalable Sensing of Louisiana Bridges Using an Uncertainty-Informed, Vehicle-Agnostic Indirect Monitoring Methodology	$122,000
054A-26	Dr. Debnath Maji	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Multichannel Dielectric Spectroscopy Platform for Targeted Assessment of Sepsis Coagulopathy	$164,676
055A-26	Dr. Fabio Mendes	Biological Sciences II	Louisiana State University and A & M College	Novel evolutionary models for integrating the genotype and phenotype in the study of speciation	$37,569
056A-26	Dr. Xiangyu Meng	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Advanced Formation Control for Multi-Robot Systems Leveraging Multi-Sensor Fusion	$69,460
057A-26	Prof. Keith Mills	Computer and Information Sciences	Louisiana State University and A & M College	Enabling Efficient Machine Learning by Interpretable Objective Optimization for Effective Low-Cost Performance Predictors	$146,250
058A-26	Dr. Marta Missiaggia	Health and Medical Sciences	Louisiana State University and A & M College	Assessing the radiation-induced secondary breast cancer risk combining microdosimetry, mathematical modeling and artificial intelligence	$197,889
059A-26	Dr. Bijoyaa Mohapatra	Health and Medical Sciences	Louisiana State University and A & M College	MINDSET: An AI-Supported Dementia Risk Reduction Program Targeting NMDoH in Older Adults	$99,715
060A-26	Prof. Cristiano Moreira	Biological Sciences I	Louisiana State University and A & M College	Signals from the Microbiome: Rewiring Virulence Regulation in Enteric Bacteria	$200,000
061A-26	Dr. Sydney Moyo	Biological Sciences II	Louisiana State University and A & M College	Unravelling the Effects of Aquatic Subsidies on Terrestrial Consumers	$120,097
062A-26	Prof. Rabi Musah	Chemistry	Louisiana State University and A & M College	Research and Development of Petroleum-like Fuel Using Insect Biorefineries and Circular Economy Principles	$200,000
063A-26	Prof. Prosper Ngabonziza	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Transparent Perovskite Oxide Heterostructures: Integrated Experimental and Theoretical Materials Design	$197,318

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
064A-26	Dr. Olalekan Ogundele	Biological Sciences I	Louisiana State University and A & M College	Thalamocortical underpinnings of Amyloid Beta induced temporal order memory decline	$180,000
065A-26	Dr. Zhihong Pang	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Privacy-Aware Data-Driven Energy Management for Smart and Resilient Communities	$177,988
066A-26	Prof. Kidong Park	Health and Medical Sciences	Louisiana State University and A & M College	Development of flexible 3-dimensional microelectrode array for electrophysiology	$70,250
067A-26	Dr. Hailey Parry	Health and Medical Sciences	Louisiana State University and A & M College	The impact of mitochondria and lipid droplet configuration on mitochondrial energy production in skeletal muscle	$189,391
068A-26	Dr. Flavia-Ioana Patrascu	Computer and Information Sciences	Louisiana State University and A & M College	Resilient Traffic by Data-Driven Decisions	$94,236
069A-26	Dr. Daniel Powell	Biological Sciences II	Louisiana State University and A & M College	The repeatability and consequences of population structure collapse in an anthropogenically disturbed environment	$168,634
070A-26	Prof. Amin Rafiei	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Waves, Currents, and Vortex-Induced Vibrations (VIV) in Onshore Offshore CO2 Pipelines: CFD FSI Poromechanics of Wave Structure Seabed Interaction and Liquefaction Mitigation along Louisiana's Coast	$123,694
071A-26	Prof. Mario Rivera	Biological Sciences I	Louisiana State University and A & M College	Development of a first-in-class antibiotic with antibiofilm properties	$200,000
072A-26	Dr. Elia Soto	Biological Sciences II	Louisiana State University and A & M College	Linking Unique Biomarkers & Neurocognitive Mechanisms among Childhood ADHD and ASD: ERP Evidence of Executive Function	$175,096
073A-26	Dr. Adrian Stein	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Enhanced UAV Control through 6-DOF Motion Platform and Virtual Reality	$195,747
074A-26	Dr. Jessica Stroope	Health and Medical Sciences	Louisiana State University and A & M College	Swimming skills and access to outdoor play in rural low-income Louisiana	$121,312
075A-26	Dr. Wan-Chun Su	Health and Medical Sciences	Louisiana State University and A & M College	Effects of Realistic vs. Cartoon-Like Social Environment on Neural Activity and Gait Patterns in Children With and Without Autism: A Virtual Reality-Based Neuro-Biomechanical Approach	$199,939
076A-26	Dr. Ryoichi Teruyama	Biological Sciences II	Louisiana State University and A & M College	Sexually Dimorphic Expression of Oxytocin Receptor-Expressing Cells in the Mouse Retina	$194,686
077A-26	Dr. Xavier Thompson	Health and Medical Sciences	Louisiana State University and A & M College	ROAR: Recovery Outcomes following ACL Reconstruction	$126,894
078A-26	Dr. Willem van Boxtel	Health and Medical Sciences	Louisiana State University and A & M College	Towards a cost-effective, interactive treatment for sentence production in aphasia: neurophysiological underpinnings	$96,866

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
079A-26	Prof. Georgios Veronis	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Optimized nanophotonic platforms for high-sensitivity orientation imaging of single molecules via second harmonic generation	$143,613
080A-26	Prof. Clifton Wagner	Chemistry	Louisiana State University and A & M College	Synthesis and Magnetic Characterization of Low-Coordinate Cobalt Dimers of Diazaarenes to Investigate the Interaction of Spin Polarization with High Local Magnetic Anisotropy	$51,148
081A-26	Dr. Yanyu Wang	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Unveiling Public Trust in UAV Technology for Enhancing Infrastructure Resilience in Coastal Communities	$61,403
082A-26	Dr. Xugui Zhou	Computer and Information Sciences	Louisiana State University and A & M College	Learning-Enabled Runtime Safety Assurance for Autonomous Driving Systems	$78,255
083A-26	Dr. Yimin Zhu	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	Quantifying Indoor Living Wall Cooling Effects for Enhanced Building Energy Efficiency and Human Well-Being	$197,504
084A-26	Dr. Ifechukwude Biose	Biological Sciences II	Louisiana State University Health Sciences Center - New Orleans	Gut butyrate as a non-hormonal therapy for cardiac fibrosis in HFpEF	$199,996
085A-26	Dr. Tewodros Godebo	Health and Medical Sciences	Louisiana State University Health Sciences Center - New Orleans	Assessment of Drinking Water, Locally Grown Food, and Soil Contamination Coupled with Biomonitoring of Residents in Louisiana's Industrial Corridor	$184,701
086A-26	Dr. Noelle Moreau	Health and Medical Sciences	Louisiana State University Health Sciences Center - New Orleans	Impact of skeletal muscle extracellular matrix remodeling on stiffness and function in children with cerebral palsy: implications for therapeutic targets	$193,740
087A-26	Dr. Stephanie Ander	Biological Sciences I	Louisiana State University Health Sciences Center Shreveport	MADV As A Non-Select Agent Model For EEEV Interactions With Heparan Sulfate	$60,000
088A-26	Prof. Armando Salinas	Biological Sciences II	Louisiana State University Health Sciences Center Shreveport	Identification of novel striatal cholinergic interneuron subtypes with differential vulnerability to chronic alcohol	$197,165
089A-26	Dr. Md Rubel Ahmed	Computer and Information Sciences	Louisiana Tech University	Explaining Timing Outliers in Distributed Robotic Middleware via Causal Graph Modeling	$61,430
090A-26	Dr. Ann Clifton	Computer and Information Sciences	Louisiana Tech University	Algorithms and Complexity for Balanced Graph Partitions in Redistricting Analysis	$75,279
091A-26	Dr. Julia Earl	Biological Sciences II	Louisiana Tech University	Revolutionizing Pond Insect Research Using Underwater Bioacoustics	$82,824
092A-26	Dr. Blake Farman	Computer and Information Sciences	Louisiana Tech University	Formalizing the Recognition Theorem for Cofibrantly Generated Model Categories in Lean: Foundations for Homotopy Theory and Derived Algebraic Geometry	$69,110
093A-26	Prof. Elisabeth Maria Fatila	Chemistry	Louisiana Tech University	Towards reproducible and high-fidelity cation directed supramolecular assemblies of lanthanide coordination complexes	$64,093

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
094A-26	Dr. Arif Hussain	Computer and Information Sciences	Louisiana Tech University	Real-Time Cyber-Physical Grid Testbed for Resilient EV and DER Integration	$136,410
095A-26	Dr. Tianyu Li	Chemistry	Louisiana Tech University	From Synthesis to Mechanistic Understanding: Controlling Crystallographic Site Preferences and Disorder in $Fe_2Mo_3O_8$-Type Compounds	$87,329
096A-26	Dr. Xiyuan Liu	Earth/Environmental Sciences	Louisiana Tech University	Develop AI Generative Model to Generate Carbon Quantum Dots for Detecting Heavy Metal	$200,000
097A-26	Prof. Kevin Nixon	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana Tech University	Investigating the Structure-Property-Performance Relationships in Bio-derived Sulfonated Block Polymers for Proton Exchange Membrane Applications	$68,173
098A-26	Dr. Abdur Rahman	Biological Sciences II	Louisiana Tech University	Image-Based Deep Learning of Genomic Sequences for Scalable Discovery of Disease-Associated Loci	$112,410
099A-26	Dr. Alison Reichter	Health and Medical Sciences	Louisiana Tech University	Holistic Health Intervention and Coaching Program for Individuals with Parkinson's Disease in Louisiana	$189,955
100A-26	Dr. Hadi Salehi	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana Tech University	Human-Centered Data Analytics for Post-Disaster Recovery in Coastal Communities	$153,121
101A-26	Dr. Masood Sepehrimanesh	Biological Sciences I	Louisiana Tech University	Developing a method to derive mature neurons from induced pluripotent stem cells to create a robust model for future neurological studies	$159,551
102A-26	Dr. Roya Solhmirzaei	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana Tech University	Ultra High Performance Concrete Overlays for Durable Strengthening and Service Life Extension of Bridge Decks	$166,643
103A-26	Dr. Junhai Xu	Health and Medical Sciences	Louisiana Tech University	Enhancing Interactive Learning and Practical Application in Sports and Exercise Science Through Updated Technology to Promote Graduate Study and Research	$199,222
104A-26	Dr. Weinan Zhou	Biological Sciences I	Louisiana Tech University	Role of adipokines in cholestatic liver diseases	$166,816
105A-26	Dr. Zhengchen Zang	Earth/Environmental Sciences	Louisiana Universities Marine Consortium	Investigating spatiotemporal changes in environmental stressors on eastern oyster populations through coupled physical biogeochemical model	$199,340
106A-26	Dr. Todd Bollinger	Biological Sciences I	McNeese State University	Population Genetics and Gene Flow across Populations of Diamondback Terrapins [Malaclemys terrapin] Along the United States Gulf Coast	$95,343
107A-26	Dr. Qi Guo	Engineering B [Industrial, Materials, Mechanical, etc.]	McNeese State University	Enhancing Building Energy Efficiency with AI-Driven Solutions	$98,625
108A-26	Dr. Sonya Hidalgo	Health and Medical Sciences	McNeese State University	Innovating Clinical Training in Medical Laboratory Science: Developing Research-Based Standards for Virtual Reality Simulation	$144,885

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
109A-26	Prof. Mark Merchant	Biological Sciences II	McNeese State University	Sex-dependent Seasonal Changes in Diets of Blue-Winged Teal [Spatula discors]	$77,473
110A-26	Dr. Janak Paudyal	Chemistry	McNeese State University	Scalable Paper-Based Sensors Coupled with AI for Accessible Neurochemical Diagnostics	$80,364
111A-26	Dr. Shaikh Gohin Samad	Computer and Information Sciences	McNeese State University	Performance Analysis of Grover's Algorithm on Noisy Intermediate-Scale Quantum [NISQ] Hardware.	$37,333
112A-26	Dr. Bei Xie	Computer and Information Sciences	McNeese State University	AI-Powered Intrusion Detection on Edge Devices for Industrial IoT Security	$155,972
113A-26	Dr. Cunzhi Zhao	Computer and Information Sciences	McNeese State University	Integrating EV and BESS Data into a Chemistry-Informed Neural Network for Battery Degradation Modeling in Microgrids	$31,194
114A-26	Dr. Abby Adams	Biological Sciences II	Nicholls State University	Environmental Health Diagnostic Based on Fiddler Crab and Crawfish Immunometabolism Markers	$107,770
115A-26	Dr. Bliss Broussard	Biological Sciences I	Nicholls State University	Microbial and Chemical Determinants of Oyster Larval Settlement in Louisiana Hatcheries and Estuaries	$166,744
116A-26	Dr. John Dennis	Earth/Environmental Sciences	Nicholls State University	Advancing Coastal Resilience through Baseline Monitoring with Drone and IoT Sensor Integration	$179,421
117A-26	Dr. Xin Dong	Health and Medical Sciences	Nicholls State University	Using scenario AI in employment training for the college students with ASD in the postsecondary program	$59,998
118A-26	Dr. Himanshu Raje	Biological Sciences I	Nicholls State University	Transcriptional response of E. coli biofilms to MS2 phage infection and nutrient deprivation.	$18,000
119A-26	Dr. Michael Vershinin	Computer and Information Sciences	Nicholls State University	Artificial intelligence for analysis of nanoscale biological data	$193,961
120A-26	Dr. Md Shahriar Hossain	Engineering B [Industrial, Materials, Mechanical, etc.]	Northwestern State University	Ergonomic and Material Performance Analysis for Human-Centered Manufacturing Systems	$98,200
121A-26	Dr. Adonay Sissay	Chemistry	Northwestern State University	Propagator Mixed with Machine Learning for the Time-Dependent Kohn-Sham Equations	$31,831
122A-26	Dr. Mark Teshera	Biological Sciences II	Northwestern State University	American alligators and Agkistrodon snakes: Investigating predator-prey dynamics, chemical search images, and chemical communication	$21,368
123A-26	Dr. Mohammad Faisal Ahmed	Engineering B [Industrial, Materials, Mechanical, etc.]	Southeastern Louisiana University	Additively Manufactured Macro-Micro Cellular Foams with Tailorable Energy Absorption Characteristics	$77,704
124A-26	Dr. Prem Chanda	Chemistry	Southeastern Louisiana University	Boron Enediolates in the Stereoselective Alpha-Functionalization of Free Carboxylic Acids	$83,686

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
125A-26	Dr. James Cho	Biological Sciences I	Southeastern Louisiana University	Quantifying Kd of Protein-Capped Metal Nanoparticles for Targeted Binding to Klebsiella pneumoniae	$68,088
126A-26	Dr. Ephraim Massawe	Engineering B [Industrial, Materials, Mechanical, etc.]	Southeastern Louisiana University	Predictive Modeling of PFAS Exposure and Risks in Louisiana Study (PEARLS): Integrating Science, Technology, Engineering and Mathematics (STEM) Training and Workforce Development	$199,434
127A-26	Prof. Quoc-Nam Tran	Computer and Information Sciences	Southeastern Louisiana University	Scalable In-Memory Computing, Parameterized Verification, and Applications	$130,631
128A-26	Dr. Adrian Rolle	Health and Medical Sciences	Southern University at New Orleans	Grief and Trauma Education: Impact on the effectiveness of nursing and social work students in patient/client care.	$124,030
129A-26	Dr. Meiko Thompson	Biological Sciences II	Southern University at New Orleans	Decompositional Impact on Microbial Communities in Petroleum-Impacted Louisiana Environments: Advancing Forensic and Environmental Forensics Research	$181,210
130A-26	Dr. Kenneth Williams	Computer and Information Sciences	Southern University at New Orleans	Cybersecurity of Digital Twins for Automated Systems: Building an Experiential Learning Pipeline for Industry 4.0 at SUNO	$160,930
131A-26	Dr. Carolyn Bayer	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	Increasing Research Competitiveness in Photoacoustic Imaging of Tissue Oxygenation	$200,000
132A-26	Prof. Alexander Burin	Chemistry	Tulane University	Thermal conductivity of long polymer molecules with kinks	$83,406
133A-26	Prof. Douglas Chrisey	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	SiC Defects for Qubits	$70,089
134A-26	Prof. James Donahue	Chemistry	Tulane University	Development of the Direct Synthesis of Janus Transition Metal Dichalcogenides via Mixed Chalcogenide Small Molecule Precursors	$142,812
135A-26	Prof. Kathleen Ferris	Biological Sciences II	Tulane University	Parallel adaptation to harsh plant habitats	$197,722
136A-26	Prof. Daniel Friess	Earth/Environmental Sciences	Tulane University	Coastal wetland resilience under multiple natural disturbances in the southern US	$168,574
137A-26	Prof. Shuaihua Gao	Biological Sciences I	Tulane University	Advancing Cancer Imaging and PFAS Detoxification through Fluorine Enzyme Engineering	$194,434
138A-26	Prof. Scott Grayson	Chemistry	Tulane University	Synthesis and characterization of a range of branched poly[ethylene brassylates], a novel but substantially inexpensive non-polar polyester	$69,000
139A-26	Dr. Alex Gunderson	Biological Sciences II	Tulane University	Investigating lead (Pb) mutagenesis in somatic and gametic cells at the DNA sequence level in the brown anole lizard model	$150,834

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
140A-26	Dr. Katharine Jack	Biological Sciences II	Tulane University	Hormones, parasitism and immunity: How social status affects health in wild capuchins	$199,832
141A-26	Dr. Shaokai Jian	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	Boundary critical phenomena in topological materials	$100,000
142A-26	Dr. Jordan Karubian	Biological Sciences II	Tulane University	Innovating AI interpretation of complex behaviors to understand how environmental and social factors impact lek mating dynamics of the white-bearded manakin	$197,772
143A-26	Prof. Rafal Komendarczyk	Computer and Information Sciences	Tulane University	Geometric Approach to Shape Reconstruction from Noisy Data	$90,955
144A-26	Dr. Jiang Ming	Computer and Information Sciences	Tulane University	Towards Adversarially Robust Malware Defense via Graph-Driven and Linguistically Inspired Approaches	$112,323
145A-26	Dr. Michael Naguib	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	Performance-Driven Autonomous Synthesis of 2D Materials	$200,000
146A-26	Prof. Anoop Rajappan	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	Self-Powered Wearable Textile Refrigerator for Active Removal of Body Heat	$189,709
147A-26	Prof. Igor Rubtsov	Chemistry	Tulane University	Assessing cell membrane rigidity and fluidity for biomedical applications	$150,936
148A-26	Dr. Brian Sidlauskas	Biological Sciences II	Tulane University	Proving the feasibility of barcoding the morphology of millions of natural history specimens with artificial intelligence	$199,968
149A-26	Mr. Jiyuan Wang	Computer and Information Sciences	Tulane University	Isolating Hardware Error Patterns with Delta-Debugging for Quantum Compilation	$97,264
150A-26	Prof. Jiang Wei	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	Establishing Device-Level Reproducibility in van der Waals Nanowire Arrays for Next-Generation Nanoelectronics	$200,000
151A-26	Prof. Selin Zeytinoglu	Biological Sciences II	Tulane University	A Neural Mechanism Underlying Intergenerational Transmission of Anxiety in Childhood	$195,151
152A-26	Prof. Yanxu Zhang	Earth/Environmental Sciences	Tulane University	Modeling the Role of Sea Ice in Polar Mercury Dynamics	$115,746
153A-26	Dr. Tiong Gim Aw	Health and Medical Sciences	Tulane University Health Sciences Center	Examining linkages among harmful algal blooms, pathogenic Vibrio species and shellfish contamination across Louisiana Gulf Coast	$194,760
154A-26	Dr. David Crosslin	Health and Medical Sciences	Tulane University Health Sciences Center	LA-GENE: Louisiana Genomic Evaluation Network	$199,946
155A-26	Prof. Wu-Min Deng	Health and Medical Sciences	Tulane University Health Sciences Center	Mechanisms of Tumor-Induced Systemic Renal Dysfunction	$200,000

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
156A-26	Dr. Wenke Feng	Health and Medical Sciences	Tulane University Health Sciences Center	Microbial Extracellular Vesicles and Probiotic Therapy for Alcohol-Associated Liver Disease	$194,571
157A-26	Dr. Claudia Herrera	Biological Sciences I	Tulane University Health Sciences Center	Selective Whole Genome Sequencing for Genomic Characterization of Trypanosoma cruzi and Other Zoonotic Pathogens	$198,999
158A-26	Dr. Bilon Khambu	Health and Medical Sciences	Tulane University Health Sciences Center	Bone Marrow Hematopoietic Stem Cells (BMHSC) Responses as Drivers of Systemic Inflammation in Chronic Liver disease (CLD)	$199,999
159A-26	Dr. Mst Shamima Khatun	Health and Medical Sciences	Tulane University Health Sciences Center	Integrative Single-cell and Spatial transcriptomic analysis to elucidate lung cancer development in chronic respiratory disease	$131,411
160A-26	Dr. Sean Lee	Biological Sciences I	Tulane University Health Sciences Center	Targeting the transcriptional regulators of fusion oncoprotein	$199,105
161A-26	Dr. Berlin Londono	Health and Medical Sciences	Tulane University Health Sciences Center	Environmental Temperature Modulation of Skin-Vector Interactions: Defining Cellular Mechanisms that Control Arboviral Transmission at Mosquito Bite Site	$199,873
162A-26	Dr. Hua Lu	Health and Medical Sciences	Tulane University Health Sciences Center	Development of c-di-GMP as an anti-metastatic breast cancer therapy by targeting the PSMD3-TBK1-NF-κB Signaling Axis	$200,000
163A-26	Prof. Arthur Lustig	Biological Sciences I	Tulane University Health Sciences Center	The Formation and Regulation of Spontaneous Triplication Inversions in a Model Eukaryote	$195,895
164A-26	Dr. Maria Pereda Ginocchio	Health and Medical Sciences	Tulane University Health Sciences Center	Phase 1 Trial of Ruxolitinib added to Conditioning for Haploidentical Or Mismatched Unrelated Donor Transplantation in Relapsed or Refractory Idiopathic Severe Aplastic Anemia	$200,000
165A-26	Dr. Minolfa Prieto	Health and Medical Sciences	Tulane University Health Sciences Center	Renal Inflammation and RAAS Crosstalk in Salt-Sensitive Hypertension	$199,728
166A-26	Dr. Felicia Rabito	Health and Medical Sciences	Tulane University Health Sciences Center	Exposure to e-cigarette aerosols in non-smoking children and the association with respiratory health	$199,792
167A-26	Prof. Suzana Savkovic	Health and Medical Sciences	Tulane University Health Sciences Center	Role of abdominal fat in colonic tumor growth in obesity	$192,016
168A-26	Dr. Katherine Theall	Health and Medical Sciences	Tulane University Health Sciences Center	Building the Science of Public Art and Youth Violence Prevention	$198,695
169A-26	Prof. Dawn Wesson	Biological Sciences I	Tulane University Health Sciences Center	West Nile virus transmission and temperature	$182,986
170A-26	Dr. William Wimley	Biological Sciences I	Tulane University Health Sciences Center	Peptide Nanopores for Targeted Protein Delivery to the Cell Cytosol	$144,071
171A-26	Dr. Hongju Wu	Health and Medical Sciences	Tulane University Health Sciences Center	Reprogramming alpha cells into beta cells for the treatment of type 1 diabetes	$228,609

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
172A-26	Dr. Qiuyang Zhang	Biological Sciences II	Tulane University Health Sciences Center	Role of BATF-Dependent Inflammation in Obesity-Related Metastatic Castration-Resistant Prostate Cancer	$200,000
173A-26	Dr. Bhupendra Acharya	Computer and Information Sciences	University of Louisiana at Lafayette	Safeguarding Online Users From Generative AI-Based Attacks	$130,200
174A-26	Dr. Sercan Aygun	Computer and Information Sciences	University of Louisiana at Lafayette	SYNCOMP: Synergistic Computing for Energy-Efficient Neuromorphic TinyML	$91,844
175A-26	Dr. Andrei Chistoserdov	Biological Sciences I	University of Louisiana at Lafayette	Metabolism of lignocellulose hydrolysate by oleaginous yeast and bacteria	$69,823
176A-26	Dr. Cheehung Chu	Computer and Information Sciences	University of Louisiana at Lafayette	Semantic-Episodic Knowledge System for Document-Grounded AI	$184,999
177A-26	Dr. Shuvalaxmi Dass	Computer and Information Sciences	University of Louisiana at Lafayette	Data-Driven OS Security: Provenance-Based Configuration Mapping for Attack Analysis and Hardening	$109,506
178A-26	Dr. Michele Feist	Earth/Environmental Sciences	University of Louisiana at Lafayette	Framing the storm: Investigating linguistic markers of storm threat severity	$57,932
179A-26	Prof. Yin Feng	Earth/Environmental Sciences	University of Louisiana at Lafayette	Discrete-to-Continuous Super-Gaussian Transformation for Subsurface Fracture Characterization	$85,238
180A-26	Dr. Apoorva Ghosh	Earth/Environmental Sciences	University of Louisiana at Lafayette	The Politics of Alignment in Louisiana Health and Environmental Justice	$157,289
181A-26	Dr. Hsiu-Yueh Hsu	Computer and Information Sciences	University of Louisiana at Lafayette	AgentCare for AD [AgentCare4AD] Patient Safety in Nursing Homes	$94,434
182A-26	Dr. Li Hui	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	Additive Manufacturable Sandwich Panels for Coastal and Extreme Environments	$146,468
183A-26	Dr. P. Io Ioannidi	Earth/Environmental Sciences	University of Louisiana at Lafayette	Multi-scale study of subduction interface processes	$177,224
184A-26	Dr. Seonhee Jang	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	Balance mechanisms between polymerization and etching of low dielectric constant materials in fluorine-based plasma	$114,459
185A-26	Dr. Anna Jilla	Health and Medical Sciences	University of Louisiana at Lafayette	Development and Validation of Evidence-Based Training Models for Community Hearing Health Advocates in Rural Louisiana	$198,783
186A-26	Dr. Jiaxin Jin	Biological Sciences I	University of Louisiana at Lafayette	Mathematical Analysis of Homeostasis in Biological Reaction Networks	$52,204
187A-26	Dr. Dustin Joubert	Health and Medical Sciences	University of Louisiana at Lafayette	Classifying High and Low Responders to the Energy Cost Benefits of Advanced Footwear Technology	$111,165

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
188A-26	Dr. Heather Kirkpatrick	Earth/Environmental Sciences	University of Louisiana at Lafayette	A systematic investigation of whole rock chemistry and zircon-melt partitioning in natural samples from Southern Nevada and California	$118,781
189A-26	Dr. Ritwij Kulkarni	Biological Sciences I	University of Louisiana at Lafayette	Understanding the pathophysiology of Klebsiella pneumoniae diabetic urinary tract infections	$160,000
190A-26	Dr. Sohyoung Lee	Biological Sciences I	University of Louisiana at Lafayette	Restoring the Sugar Shield: A Novel Screening Platform for Glycan-Modulating Compounds	$200,000
191A-26	Dr. Ning Liu	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	A new environmentally friendly hydraulic fracturing fluid for enhanced geothermal system	$92,302
192A-26	Dr. Mirna Marinic	Biological Sciences I	University of Louisiana at Lafayette	Studying Progesterone Responsiveness in Human and Chimp Endometrial Stromal Fibroblasts	$168,520
193A-26	Prof. Salah Massoud	Chemistry	University of Louisiana at Lafayette	Novel Copper and Zinc Complexes as Efficient Anticancer Agents and Targeting Cancer Cells	$145,194
194A-26	Dr. Tamanna Motahar	Computer and Information Sciences	University of Louisiana at Lafayette	Investigating AI-Driven Personal Informatics for Individuals with Upper-Body Impairments	$111,462
195A-26	Dr. Edward Patterson	Biological Sciences I	University of Louisiana at Lafayette	Exploiting insect-specific viruses to prevent transmission of arboviruses in mosquitoes	$116,085
196A-26	Dr. Emmanuel Revellame	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	Development of a Precipitation-Extraction Process for Lithium Recovery from Brine	$178,757
197A-26	Dr. Krishna Prasad Shrestha	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	Development of a heat flux burner: Experimental and Kinetic Modeling study of Oxy C1-C4 hydrocarbon combustion and in N2O environment	$96,055
198A-26	Prof. Natalia Sidorovskaia	Earth/Environmental Sciences	University of Louisiana at Lafayette	Next-Generation Coastal Monitoring for Louisiana: EM-Acoustic-AI Fusion for Energy Infrastructure Resilience and Habitat Health	$199,221
199A-26	Dr. Yoichiro Tamori	Biological Sciences I	University of Louisiana at Lafayette	Targeting Stress-Tolerant Polyploid Cancer Cells for Recurrence Prevention	$190,665
200A-26	Dr. Yi-Hong Wang	Biological Sciences II	University of Louisiana at Lafayette	Genetic Mechanism of Early Flowering and High Productivity in C4 Grasses	$100,000
201A-26	Dr. Yu Wang	Chemistry	University of Louisiana at Lafayette	Mapping the Diffusion-Recognition Landscape in Nanoscale MIP Films	$197,640
202A-26	Dr. Andrea Westerband	Biological Sciences II	University of Louisiana at Lafayette	Ontogenetic plasticity in stress resilience and its consequences for population change in tallgrass coastal prairie species	$178,034

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
203A-26	Prof. Wu Xu	Chemistry	University of Louisiana at Lafayette	Evaluate the TSR-based methodology against established computational approaches while expanding kinetic study capacity to strengthen ongoing research and enhance the competitiveness of future resubmissions	$71,440
204A-26	Dr. Hui Yan	Chemistry	University of Louisiana at Lafayette	Desulfurization of Natural Gas on Mesoporous Hybrid Materials	$130,752
205A-26	Dr. Robyn Zerebecki	Biological Sciences II	University of Louisiana at Lafayette	Investigating microgeographic local adaptation in an estuarine foundation plant to predict how coastal marshes will respond to sea-level rise	$199,978
206A-26	Dr. Boyang Zhang	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	A New Control Paradigm for Robotic Manipulators	$187,693
207A-26	Prof. Rui Zhang	Earth/Environmental Sciences	University of Louisiana at Lafayette	Utilizing Distributed Acoustic Sensing [DAS] for Urban Geology and Geohazard Assessment in Baton Rouge via LONI's Fiber Optic Network	$138,481
208A-26	Dr. Zixian Zhu	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	Advancing Construction Workforce Technology Integration: VR-Based Site Showcase for Robotics Applications	$92,188
209A-26	Dr. Andrew Bolinger	Biological Sciences I	University of Louisiana at Monroe	Discovery of GPR151 Agonists to Probe Habenular Circuitry in Substance Use Disorders	$20,000
210A-26	Dr. Anastasia Couvillon	Biological Sciences II	University of Louisiana at Monroe	Ecology and Conservation of the Gray Fox [Urocyon cinereoargenteus]: Establishing Research and Monitoring Capacity in Louisiana	$84,506
211A-26	Dr. Ross Couvillon	Biological Sciences II	University of Louisiana at Monroe	Behavioral modulation of phenotypically plastic traits in a turtle model	$41,657
212A-26	Prof. Prasanthi Sreekumari	Computer and Information Sciences	University of Louisiana at Monroe	Detecting Command-and-Control (C2) Communications Using Temporal Network Graphs	$33,775
213A-26	Dr. Meng Su	Biological Sciences II	University of Louisiana at Monroe	Directed RNA Catalysis to Degrade Expanded Trinucleotide Repeats	$61,105
214A-26	Dr. Shreya Banerjee	Computer and Information Sciences	University of New Orleans	Interactive Game-based Multi-Agent AI System for Children's Social and Emotional Development	$199,688
215A-26	Dr. Elliott Beaton	Biological Sciences I	University of New Orleans	Hearing Loss, Brain Growth, and Psychiatric Vulnerability in Louisiana Children	$153,725
216A-26	Dr. Charles Bell	Biological Sciences II	University of New Orleans	Does relatedness or distribution determine fungal endophyte communities in high-alpine plants?	$89,555
217A-26	Dr. Kelly Boyle	Biological Sciences II	University of New Orleans	Determination of the impacts of vessel noise pollution on fish activity in a coastal environment	$199,539
218A-26	Prof. Uttam Chakravarty	Engineering B [Industrial, Materials, Mechanical, etc.]	University of New Orleans	Design, Manufacture, and Analysis of an Innovative Device for Detecting Synthetic Opioids	$80,046

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Proposal #	PI Name	Category	Institution	Project Title	Total Requested
219A-26	Dr. Santiago Claramunt	Biological Sciences II	University of New Orleans	Genomic drivers of climate adaptability and evolutionary diversification in birds	$168,268
220A-26	Dr. Md Hoque	Computer and Information Sciences	University of New Orleans	AI-Enhanced Statistical Energy Functions for Toggle Proteins: A Pilot Framework for Condition-Dependent Disorder-to-Order Prediction	$198,136
221A-26	Dr. Tracey Knaus	Biological Sciences II	University of New Orleans	Minimally Verbal Children with Autism Spectrum Disorder: Brain Activation and Early Behavioral Profiles	$199,988
222A-26	Dr. Scott Phillips	Health and Medical Sciences	University of New Orleans	Psychology-Informed Micro-Interventions to Accelerate HIV Testing, Linkage, and PrEP Uptake in New Orleans	$177,634
223A-26	Dr. Anika Sarkar	Engineering B [Industrial, Materials, Mechanical, etc.]	University of New Orleans	Enhancing Structural Resilience in Marine Infrastructure through Nonlinear Adaptive Vibration Control	$174,725
224A-26	Dr. Damon Smith	Engineering B [Industrial, Materials, Mechanical, etc.]	University of New Orleans	Electrospun Nanofiber Mats with Embedded Nanoparticles for Non-Destructive Latent Fingerprint Recovery	$84,976
225A-26	Dr. Matthew Tarr	Earth/Environmental Sciences	University of New Orleans	Louisiana Sunshine: Impacts on Micro- and Nanoplastic Fate from Bayou to Gulf	$88,345
226A-26	Prof. Mark Trudell	Chemistry	University of New Orleans	Earth abundant metal nanocomposites for sustainable chemistry	$142,164
227A-26	Prof. Phoebe Zito	Chemistry	University of New Orleans	From Vanity to the Sea ? Establishing a Framework for Tracing Engineered Nanoparticles in the Environment	$199,332
228A-26	Dr. Udaya Dahal	Chemistry	Xavier University	Multiscale Simulation of Polyelectrolyte [PE] Functionalized Nanoparticles for Drug Delivery Applications	$108,463

Appendix B

RCS Rating Form

SUBJECT-AREA PANEL PROPOSAL EVALUATION FORM
BOARD OF REGENTS SUPPORT FUND RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)

A. EXISTING CAPABILITIES TO IMPLEMENT PROJECT (25 points) ____

How effectively are the following items addressed?
-Identification and substantiation of barriers to competitiveness
-Adequacy of institutional capabilities as base for building competitiveness
-Training, past performance, and potential of investigators

COMMENTS:

B. SCIENTIFIC MERIT (40 points)

How effectively are the following items addressed?
-Technical soundness
-Likelihood of new discoveries or fundamental advances within field
-Impact on progress in this or other fields
-Contribution to basic science
-Utility or relevance of research to improved technology or society

COMMENTS:

C. POTENTIAL FOR COMPETITIVENESS (25 points) _____

How effective is the plan to overcome existing barriers? How likely is it that the project will result in competitive status for Federal support? What are the funding prospects for this area of research by Federal agencies?

COMMENTS:

D. APPROPRIATENESS OF BUDGET (10 points) _____

Was the budget reasonable for scope of work to be performed, appropriate for personnel costs, and appropriate for equipment/supply costs?

COMMENTS:

Total Score (out of 100):_____

OVERALL RATING OF PROPOSAL

POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
_____	____	_____	_____	_____