LOUISIANA BOARD OF REGENTS
BOARD OF REGENTS SUPPORT FUND

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

FY 2024-25 COMPETITION

REPORT OF THE FINAL PANEL
BOARD OF REGENTS SUPPORT FUND RESEARCH
RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)
FY 2024-25

BACKGROUND INFORMATION

One hundred twenty-five (125) proposals requesting a total of $6,783,630 in first-year funds were submitted for funding consideration in fiscal year (FY) 2024-25 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. Gerald Sonnenfeld, retired higher education research administrator.

After careful consideration of all panel reports during March 2025, the final panel chair highly recommended twenty-three (23) proposals be funded for a total of $1,249,270 in first-year funds based on monies projected to be available. Of the proposals recommended, nineteen (19) are traditional multi-year projects and four (4) are one-year projects. A total of $3,253,967 was recommended over three years.

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. All budget reductions recommended by the review panelists are to be made at the discretion of the principal investigators unless specifically stipulated in the panel comments.

All proposals not recommended for funding will receive debriefing material summarizing reviewer assessments of the project in July 2025, to assist applicants in development of submissions to RCS and other grant programs. 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	1st-Year Recommendation	2nd-Year Recommendation	3rd-Year Recommendation
Biological Sciences I					
002A-25	LSU-Ag	Kharel	$65,313	$65,313	--
051A-25	LaTech	Fraiwan	$65,312	$60,689	$58,968
Biological Sciences II					
023A-25	LSU A&M	Kandlikar	$64,429	$57,769	$27,669
106A-25	ULL	Toups	$74,780	$55,258	$54,360
031A-25	LSU A&M	Centellas	$79,892	$51,908	$36,700
Chemistry					
118A-25	ULM	Rakus	$50,625	$50,625	$50,625
081A-25	Tulane	Guo	$50,625	$50,625	$50,625
Computer & Information Sciences					
088A-25	Tulane	Z. Zheng	$19,903	--	--
104A-25	ULL	Shi	$65,168	$60,300	$55,924
111A-25	ULL	H. Zheng	$61,723	$54,475	$53,424
Earth & Environmental Sciences					
076A-25	Tulane	Czapiga	$60,406	$58,406	$54,406
086A-25	Tulane	Wang	$79,229	$59,832	$49,829
Engineering B					
028A-25	LSU A&M	Marvel	$61,330	$60,937	$60,479
019A-25	LSU A&M	Herbert	$39,730	$39,730	$39,541
033A-25	LSU A&M	Ouchi	$56,864	$56,864	$56,864
022A-25	LSU A&M	Jung	$19,000	--	--
036A-25	LSU A&M	Rego	$64,210	$63,410	$61,410
095A-25	ULL	Faisal	$58,750	$56,384	$54,938
Health & Medical Sciences					
115A-25	ULM	Dao	$20,000	--	--
085A-25	Tulane	Park	$63,160	$62,665	$50,571
015A-25	LSU A&M	Fears	$72,050	$67,350	$59,475
064A-25	Nicholls	Dong	$9,750	--	--
101A-25	ULL	Li	$47,724	$48,194	$47,452
RCS Total Recommended Funds			**1st Year**	**2nd Year**	**3rd Year**
			$1,249,973	$1,080,734	$923,260

Table II

2024-25 Research Competitiveness Subprogram Review Panelists		
Name	**School**	**Discipline**
Final Panel		
Gerry Sonnenfeld	Consultant	Research Administration
Biological Sciences I		
Blake Wiedenheft, chair	Montana State University	Biochemistry, Microbiology
Sudha Sharma	Howard University	Biochemistry, Pathology
Biological Sciences II		
Bette A. Loiselle, chair	University of Florida	Ecology, Zoology
Joanna Joyner-Matos	Eastern Washington University	Zoology, Physiology
Jill Anderson	University of Georgia	Ecology, Genetics
Computer & Information Sciences		
Simone Silvestri, chair	University of Kentucky	Computer Science
Diksha Shukla	University of Wyoming	Computer Engineering
Earth & Environmental Sciences		
Yi Ming, chair	Boston College	Atmospheric
Laodong Guo	University of Wisconsin-Milwaukee	Chemical Oceanography
Chemistry		
Robert Strongin, chair	Portland State University	Organic/Physical/Materials Chemistry
Shaopeng Wang	Arizona State University	Physical Chemistry
Engineering B		
Indrajit Charit, chair	University of Idaho	Materials (Metallurgical) Engineering
Pradeep L. Menezes	University of Nevada, Reno	Materials/Mechanical Engineering
Prashanta Dutta	Washington State University	Mechanical Engineering
Health & Medical Sciences		
Enbal Shacham, chair	Saint Louis University	Public Health/Behavioral Science
Gerry Sonnenfeld	Consultant	Research Administration
Heather Wright	East Carolina University	Allied Health

FY 2024-25 Research Competitiveness Program

Priority Ranking of Proposals Highly Recommended for Funding

Biological Sciences I

Proposal #	002A-25
Institution	Louisiana State University Agricultural Center
PI	Karuna Kharel
Title	Enhancing Antimicrobial Efficacy and Preventing Cross-Contamination in Agricultural Water: Synergy of Sanitizers and UV-C Treatment
Requested	Year 1: $72,375 (Y2: $67,199)
Recommended	Year 1: $65,313 (Y2: $65,313)

The PI aims to test how UV-C and chemical sanitizers might work synergistically to improve sanitation and consumer health. This method is intended to control a broad range of pathogens, prevent cross-contamination in wash systems, and offer a scalable, environmentally safe solution for pathogen reduction. The proposal was submitted by a new faculty member at the LSU AgCenter. Lack of preliminary data is the major barrier to competitiveness cited. The PI has identified an appropriate funding agency (USDA NIFA). The experiments described here will improve competitiveness for a larger field trial. The PI has relevant prior experience, and the experimental design is straightforward, supported by preliminary data suggesting feasibility. Due to limited funds available, partial funding of $65,313 is recommended in both years.

Proposal #	051-25
Institution	Louisiana Tech University
PI	Arwa Fraiwan
Title	Exploring Novel Electrode Materials and Structures for Enhancing Miniaturized Microbial Fuel Cell Usability in Biosensing Applications
Requested	Y1: $79,941 (Y2: $60,689; Y3: $58,968)
Recommended	Y1: $65,312 (Y2: $60,689, Y3: $58,968)

The proposed research focuses on developing miniature microbial fuel cells (MFCs) as biosensors for environmental safety and medical diagnostics. The key goal is to enhance power generation and operational stability of micro-sized MFCs for biosensing applications. This proposal is from a new PI at Louisiana Tech with diverse research and teaching experience and an impressive publishing record. They are establishing a research group at the intersection of Biology and Engineering with sufficient startup funding. Barriers have been identified and a solid plan developed to collect preliminary data, build collaborations, and prepare competitive proposals,

positioning them as a promising early-stage investigator. The PI has the necessary training, collaborators, and resources to complete this work, which will enhance competitiveness as an independent investigator. The institution has sufficient resources. The PI describes a vast and largely uncharted landscape with opportunities for fundamental discoveries that have applications in industry and medicine and has identified appropriate funding agencies to support this work. Preliminary data will be leveraged to develop competitive funding proposals from federal agencies such as NSF (CBET, EECS), ONR, and NIAID. Additionally, industrial partnerships and funding opportunities will be explored through mechanisms like NSF's SBIR/STTR and NIH. The multidisciplinary nature of the project, addressing critical environmental and diagnostic biosensing needs, positions it well for continued federal and industry funding. Collaborations, outreach, and training are also part of the plan, indicating a high potential for success. The PI is also urged to consider an NSF CAREER award. The "Development of Educational Outreach Initiatives" described by the PI will fit well in the broader impacts of the CAREER application. Due to limited funding available, partial funding of $65,312 is recommended in year one, with full funding recommended for the remaining years.

Biological Sciences II

Proposal #	023A-25
Institution	Louisiana State University and A&M College
PI	Gaurav Kandlikar
Title	Soil Microbial Effects on Plant Community Responses to Fire in Longleaf Pine Savannas
Requested	Year 1: $64,429 (Y2: $57,769, Y3: $27,669)
Recommended	Year 1: $64,429 (Y2: $57,769, Y3: $27,669)

This proposal seeks to evaluate the consequences of contemporary management practices relating to fire for soil microbes and their interactions with shrubs in longleaf pine savannas. The research has the potential to reveal the mechanisms through which shrubs have encroached upon these savanna ecosystems. The PI identifies five barriers to competitiveness and lays out a clear and compelling plan for overcoming these barriers by establishing collaborations, publishing on soil microbial dynamics in longleaf pine savannas, gathering the necessary preliminary data, training a graduate student, and enabling the PI to gain experience in managing large projects. The award will allow the PI to generate necessary preliminary data and gain critical experience with long-leaf pine savannas and soil microbial communities. This research has clear and compelling relevance to Louisiana. The PI has opportunities to seek funding from basic science agencies as well as applied agencies. The research is well positioned to generate novel insights into complex community dynamics. The proposal describes a reasonable plan for submission of a proposal to the Population and Community Ecology cluster in DEB at NSF in year two, with resubmission in

year three if needed. The proposal will build relationships with managers and conservationists at the U.S. Forest Service and the Nature Conservancy. The inclusion of a section highlighting contingency plans improves the proposal. Institutional resources are adequate for supporting this research and the PI has the expertise and experience to establish the outlined research program. The budget request is reasonable, well justified, and in line with scope of the project,. Full funding is recommended.

Proposal #	106A-25
Institution	University of Louisiana at Lafayette
PI	Melissa Toups
Title	Why So Many Ys? Unraveling the Role of Local Adaptation, Sexual Antagonism, and Drift in the Evolution of Neo-Sex Chromosomes
Requested	Year 1: $89,370 (Y2: $55,258, Y3: $54,360)
Recommended	Year 1: $74,780 (Y2: $55,258, Y3: $54,360)

This proposal aims to disentangle the contributions of local adaptation, sexual antagonism, and genetic drive in the evolution of neo-sex chromosomes in hawker dragonflies. These dragonflies are fascinating because some species have evolved neo-sex chromosomes and others maintain the ancestral X0 system. The proposal integrates both macro- and microevolutionary approaches in interesting and compelling ways. The project has a strong conceptual framework, clearly articulated hypotheses and supporting figures, and an ideal system for performing the research. The PI has extensive experience in the system and a collaboration network that should lead to project success. They are very close to being competitive and this award will greatly improve the probability of success. The identified barriers to competitiveness include a lack of resources for the development of a model system, lack of trainees, heavy teaching load, lack of time for research, and lack of funds for genomic work. The proposed research will provide the data necessary for the submission of three manuscripts, two grant proposals to federal agencies, and five oral presentations for conferences. In addition, this work will train one undergraduate and two graduate students. The plan to overcome barriers is strong and clearly articulated. The available institutional facilities, equipment, and computational resources are more than adequate. The PI has the experience and expertise necessary to conduct this research successfully. Due to limited monies available, partial funding of $74,780 is recommended in year one, with full funding recommended in the remaining years.

Proposal #	031A-25
Institution	Louisiana State University and A&M College
PI	Flavia Montano Centellas
Title	Environmental Related Changes in Distribution, Ecology and Genetic Structure of Montane Birds
Requested	Year 1: $89,892 (Y2: $51,908, Y3: $36,700)
Recommended	Year 1: $79,892 (Y2: $51,908, Y3: $36,700)

The primary aim of this proposal is to evaluate the shifts in bird community composition over five decades of climate change for bird persistence in the Bolivian Andes. Further, the study will make use of museum specimens to evaluate genomic changes and population-level responses over the same timeframe. The primary barriers articulated in this proposal are the lack of research infrastructure and trainees for generating preliminary data. This funding will enable the PI to recruit and train a graduate student for all proposed studies, continue to train undergraduate students, and produce necessary preliminary data. The institutional capabilities for this project are excellent. This is an incredibly promising system, leveraging historical data and museum collections that are uniquely available to the PI at the institution. There is a very strong potential to answer important questions regarding not only how bird communities respond to climate change, but also how bird populations and genomes respond. With the results gathered from this project, the research is likely to be very compelling to funding agencies. There are excellent opportunities to integrate research and teaching and enrich experiences for LSU A&M students. The PI has established a strong network of international collaborations and has the expertise and experience to carry out the proposed studies effectively. Of particular importance are the PI's 15 years of experience studying birds in the Bolivian Andes. Due to limited funds available, partial funding of $79,892 is recommended in year one, with full funding recommended in additional years.

Chemistry

Proposal #	118A-25
Institution	University of Louisiana at Monroe
PI	John Rakus
Title	Hsc70 Interactions in the Regulation of the Macrophage Lipopolysaccharide Response
Requested	Year 1: $61,640 (Y2: $58,940, Y3: $58,940)
Recommended	Year 1: $50,625 (Y2: $50,625, Y3: $50,625)

This work proposes to determine the exact nature of the interactions governing Hsc70 in the LPS/TLR4 activation of TNFα. The plans will test the hypothesis that TNFα secretion is regulated by interactions between Hsc70 and ribosomal proteins. The research strategy is clearly organized

and presented. It is based on preliminary studies by the PI. The work will contribute to fundamental understanding of an important molecular mechanism that is relevant to several prevalent diseases. Barriers to competitiveness are identified, including the lack of mass spectroscopy at ULM. The plan is to perform the necessary analysis at LSUHSC-Shreveport and target federal grant programs, such as NIH R16, that are designed to support lower-resource institutions. In addition, the PI describes prioritizing well-framed research ideas with realistic progress benchmarks and outcomes, institutional capacity, and a clear implementation plan that includes federal grant application cycles. This is an excellent proposed strategy for implementing a successful, highly competitive research program at a primarily undergraduate institution. The PI has a few publications in the research area, and a history of success in securing small research grants. The research direction is actively supported by NIH and NSF. The PI plans to submit R15/R16 grant applications to NIAID and NIGMS. The likelihood of receiving federal funding is high. Due to limited funds available, partial funding of $50,625 is recommended in all three project years.

Proposal #	081A-25
Institution	Tulane University
PI	Wenxiao Guo
Title	Advancing the Understanding and Control of Proton Activity at Electrochemical Interfaces for Electrocatalysis
Requested	Year 1: $57,251 (Y2: $56,435, Y3: $56,384)
Recommended	Year 1: $50,625 (Y2: $50,625, Y3: $50,625)

The research will address the need to decouple the activity of proton donors as participants for proton-coupled electrons from their electrochemical activity as reactants for H_2 generation (HER). If this decoupling can be achieved, it would facilitate electrocatalytic reactions such as CO_2 or nitrate reduction. The PI makes a strong case for novelty and innovation via a detailed comparison to existing methods to suppress HER while retaining the activity of proton sources. The planned efforts, based on controlling molecular level sterics near proton centers, if successful, will have potential to impact the field. The PI is a new junior faculty member in Tulane University's Chemistry Department. The three major barriers to competitiveness identified by the PI are reasonable: graduate student recruitment and training, building the reputation of a new lab, and securing external funding. The institutional resources are adequate to support the proposed study and produce a competitive proposal. The PI's training in electrochemical analysis and synthesis of organic compounds is sufficient for the proposed research. The publication record is good for their career stage. The technical soundness of the proposal is high. The project will likely generate novel discoveries in the field of electrochemistry with promising applications in CO2 reduction. It will also contribute to the basic understanding of the tunability of electrocatalytic processes through molecular design, particularly how to decouple the acidity of proton donors from their electrochemical activity for hydrogen generation. The research topic, CO_2 reduction, is of interest

to federal agencies. Due to limited funds available, partial funding of $50,625 is recommended in all three project years.

Computer and Information Sciences

Proposal #	088A-25
Institution	Tulane University
PI	Zizhan Zheng
Title	Enhancing LLM Safety via Constrained Fine-Tuning and Decoding
Requested	Year 1: $19,903
Recommended	Year 1: $19,903

This proposal addresses the critical issue of using large language models (LLMs) in safety-critical domains, which is an important and timely topic. It is a departure from the PI's original line of research, focusing on artificial intelligence safety, which adds diversity and relevance to their research portfolio. The proposed research is well described, persuasive, and has high likelihood of success. The budget and timeline are well structured and appropriate for the scope of the project. Full funding is recommended.

Proposal #	104A-25
Institution	University of Louisiana at Lafayette
PI	Min Shi
Title	Mitigating Unfairness in Foundation Models for Medical Applications
Requested	Year 1: $65,168 (Y2: $60,300, Y3: $55,924)
Recommended	Year 1: $65,168 (Y2: $60,300, Y3: $55,924)

The proposal effectively emphasizes the importance of addressing unfairness and bias in machine learning, particularly in the context of medical applications. The proposed techniques hold promise for addressing the issue. The PI is well qualified to conduct the research and has extensive experience in the domain. The proposal identifies relevant barriers to competitiveness, particularly the need for additional computing infrastructure and collaboration with clinicians, which the project aims to address. The proposal provides details on the need for essential computing resources that will enable the PI to collect preliminary data for future research proposals. During the project the PI will test the hypothesis and gather the preliminary data necessary for future federal grant applications. The plan to establish collaborations with clinicians is a key component that will be critical for the success of future research endeavors. The proposed research is sound, though it must be discussed in more technical detail to be federally competitive. The budget is well justified and aligns with the scope of work to be performed. Full funding is recommended.

Proposal #	111A-25
Institution	University of Louisiana at Lafayette
PI	Hao Zheng
Title	Enhancing Computational Pathology through Automated Large-Scale Multi-Modal Learning
Requested	Year 1: $61,723 (Y2: $54,475, Y3: $53,424)
Recommended	Year 1: $61,723 (Y2: $54,475, Y3: $53,424)

The PI seeks to use deep learning to develop an automated system that can extract comprehensive representations from large-scale, muti-modal pathological data. The PI has a strong record in the proposed research area and is highly likely to complete the project successfully. They have been a collaborator on NSF and NIH grant teams but have not led a grant team. Barriers to competitiveness are identified, including lack of preliminary results, the need to identify collaborators and external connections, and experience running a grant. A good plan is presented for overcoming these barriers, including producing preliminary results, publishing in high-quality journals, building connections, and applying for grants. The proposal would be strengthened by being more specific about the type of preliminary results and why these are fundamental to success. The research plan is persuasive and well structured, providing a comprehensive framework for computational pathology. Tasks are clearly organized and cohesive. The approach encompasses data curation, multi-modal data representation learning, and classification algorithms. Including multi-modal data for improving disease diagnosis is a promising avenue that is worth exploring. The proposal clearly identifies key limitations to the current state of the art and offers an innovative approach to improving disease diagnosis. Full funding is recommended.

Earth and Environmental Sciences

Proposal #	076A-25
Institution	Tulane University
PI	Matthew Czapiga
Title	Eco-Geomorphological Controls on Deltaic Channel Maturation and Fine Sediment Capture
Requested	Year 1: $60,406 (Y2: $58,406, Y3: $54,406)
Recommended	Year 1: $60,406 (Y2: $58,406, Y3: $54,406)

The proposal identifies an important knowledge gap in deltaic sediment transport. The PI, a first-year assistant professor, has a strong background in river delta research and sedimentology but limited independent research experience. Nevertheless, the PI's training and publication record are impressive. The plan for achieving national competitiveness is thorough and well considered. The research is technically sound. The integration of field data with numerical modeling is a strength.

The question of sediment capture and channel maturation is particularly relevant for Louisiana. The proposal outlines a reasonable plan for securing federal funding through NSF and other agencies. The budget appears reasonable and commensurate with the scope of the proposed work, particularly in supporting field data collection and graduate training. Full funding is recommended.

Proposal #	086A-25
Institution	Tulane University
PI	Yi Wang
Title	An Ultra-High-Resolution Investigation of the Northern Gulf of Mexico Dead Zone on Interannual to Centennial Timescales in the Common Era
Requested	Year 1: $79,229 (Y2: $59,832, Y3: $49,829)
Recommended	Year 1: $79,229 (Y2: $59,832, Y3: $49,829)

The proposed research centers around collection and oxygen isotope analysis of sedimentation cores in the Gulf of Mexico to study the dead zone over the last 2,000 years. This research is highly relevant, especially in Louisiana, as it seeks to disentangle natural and anthropogenic drivers of deoxygenation, providing insights into future hypoxia responses to climate and environmental change. The use of advanced techniques like scanning XRF, ICP-MS, and oxygen isotope analyses should enable high-resolution reconstructions of oxygen variability, productivity, and stratification. The proposed work fills a significant gap in existing records, which lack the temporal resolution and coverage needed to compare with modern observations. The project's focus on natural forcings and their potential interaction with anthropogenic factors has important implications for dead zone mitigation and coastal ecosystem management. The PI is a new assistant professor at Tulane with a strong background in paleoclimate and geochemistry, along with expertise in redox proxies, mass spectrometry, and scanning X-ray fluorescence. The institution is well equipped with all necessary resources. The PI's prior experience in organizing research cruises and mentoring graduate students further strengthens project feasibility. The proposed research aligns with national priorities, such as NOAA's dead zone monitoring and NSF's focus on ocean deoxygenation. The project's preliminary data will support future federal grant applications, including NSF-OCE and Gulf Research Program proposals. The societal relevance of the research, particularly for Gulf Coast communities vulnerable to deoxygenation, increases its potential for federal funding and policy impact. The budget is well justified. Full funding is recommended.

Engineering B

Proposal #	028A-25
Institution	Louisiana State University and A&M College
PI	Christopher Marvel
Title	Discovering Mechanisms Underlying Mechanically Driven Phase Transformations of Aluminum Oxide
Requested	Year 1: $61,330 (Y2: $60,937, Y3: $60,479)
Recommended	Year 1: $61,330 (Y2: $60,937, Y3: $60,479)

The proposal demonstrates technical soundness with a high likelihood of new discoveries and fundamental advances in understanding mechanochemical reactions, particularly the mechanoreduction of Al2O3 using LiH. By exploring atomic-scale mechanisms and identifying processing-microstructure-property relationships, the research significantly contributes to basic science. The potential impact extends beyond Materials Science, influencing fields such as Chemistry, Physics, and Mechanical Engineering. Additionally, the relevance of the research to wire-based additive manufacturing and NASA's mission underscores its technological and societal benefits, promising more efficient and sustainable manufacturing processes. The PI has excellent credentials and has clearly described the barriers to national competitiveness. The team will have access to unique capabilities through the institution's state-of-the-art facilities. The proposal is technically sound, and the likelihood of new fundamental advances is quite high. The long-term impact of this technology development will be very significant. Employing atomic-resolution electron microscopy will allow for the identification of atomic-scale mechanisms. The proposal addresses the previous lack of preliminary data, which was a barrier in an earlier NASA submission. Federal R&D funding agencies like the Department of Defense (DOD) and the Department of Energy (DOE) also support the advanced materials research proposed here. The budget is appropriate. Full funding is recommended.

Proposal #	019A-25
Institution	Louisiana State University and A&M College
PI	Robert Herbert
Title	Robot-Assisted, Conformal Printing of Soft Materials
Requested	Year 1: $39,730 (Y2: $39,730; Y3: $39,541)
Recommended	Year 1: $39,730 (Y2: $39,730; Y3: $39,541)

The proposed research leverages a six-axis robotic arm for conformal and multiscale printing, providing insights into key criteria for patterning materials onto complex topographies. It holds a high likelihood of new discoveries and fundamental advances by exploring advanced printing controls and spatial programming of material microstructures. The impact on progress in this and other fields is significant, as the findings can be applied to various future basic and applied studies.

The research contributes to basic science by advancing the understanding of process and material parameters in additive manufacturing. Its utility and relevance to improved technology and society are evident in its potential applications across space and biomedical fields, enhancing the capabilities of printed soft materials. The PI identifies barriers to competitiveness, such as the need for independent research outcomes, limited multiyear funding, and a lack of preliminary data for a robot-assisted printing platform. Strong institutional support is in place, with advanced labs and shared resources. The PI has a solid background in soft electronics and printing, with notable publications and awards. The plan to overcome existing barriers is highly effective, focusing on generating preliminary data and leveraging robust institutional support. The project's likelihood of achieving competitive status for federal support is strong given its innovative approach and alignment with federal funding priorities. The validated proof of concept and scalable solutions will position the project well for grants from entities such as NSF, DOD, Nextflex, and NASA. The budget appears appropriate. Full funding is recommended.

Proposal #	033A-25
Institution	Louisiana State University and A&M College
PI	Tetsu Ouchi
Title	Toughening Elastomeric Materials through Topological Energy Dissipation
Requested	Year 1: $56,864 (Y2: $56,864; Y3: $56,864)
Recommended	Year 1: $56,864 (Y2: $56,864; Y3: $56,864)

The proposal demonstrates strong technical soundness in developing a tough elastomeric material platform using mechanically interlocked polymers. The PI has clearly outlined a hypothesis, outcomes, and potential issues. The work has a high likelihood of leading to new discoveries and fundamental advances in understanding the relationship between macroscopic and molecular mechanical behaviors. The research is poised to significantly impact progress in fields such as materials science, mechanical engineering, and polymer chemistry. It contributes to basic science by filling the knowledge gap between macroscopic and molecular scales. Additionally, the research is highly relevant to improving technology and addressing societal challenges related to rubber and gel waste management. The proposal effectively identifies and substantiates barriers to competitiveness, such as limited preliminary data, the lack of well-trained personnel at the early stages, and insufficient collaboration with experts in theory and simulation. The institutional capabilities are adequate, with access to ample laboratory space, synthesis and characterization facilities, and high-performance computing resources. The PI's training, past performance, and potential are strong, with expertise in polymer science, Mechanical Engineering, Chemistry, soft matter mechanics, and the design and synthesis of polymeric systems leveraging mechanochemistry. These factors collectively support the project's competitiveness and potential for success. The plan to overcome existing barriers is effective, as it involves actively exploring funding opportunities from multiple federal agencies such as NSF, DOE, DOD, and NIH. By initially targeting NSF for fundamental research studies and subsequently seeking funding from

NIH, DOE, and DOD for specific applications, the project is well positioned to achieve competitive status for federal support. The proposed budget is appropriate. Full funding is recommended.

Proposal #	022A-25
Institution	Louisiana State University and A&M College
PI	Jangwook Jung
Title	A Multi-Objective Approach to Diabetic Wound Healing Scaffolds
Requested	Year 1: $19,000
Recommended	Year 1: $19,000

A multi-objective Bayesian optimization model is proposed for diabetic wound healing, considering localized antioxidation, sustained oxygenation, and antibacterial activities. If successful, the proposed project will help reduce infection, minimize scarring, and shorten wound healing time. The PI is very established in the cardiac research field with major research grants from NSF, NIH, and other sources. Through this one-year project, the PI will expand their domain to wound healing. The experimental and data collection process described in this proposal is very thorough. This is a well-written proposal from an established scientist and research has potential to attract funding from federal grants. Full funding is recommended.

Proposal #	036A-25
Institution	Louisiana State University and A&M College
PI	Bruno Rego
Title	A Deep Operator Network Model to Enable Personalized Hydrogel Injection Therapies after Heart Attack
Requested	Year 1: $64,210 (Y2: $63,410; Y3: $61,410)
Recommended	Year 1: $64,210 (Y2: $63,410; Y3: $61,410)

This project seeks to develop a machine-learning-based surrogate model for the prediction of patient-specific treatment after myocardial infarctions. Specifically, the project team would like to challenge the current one-size-fits-all method used for the treatment of heart muscle recovery after myocardial infarction. The PI proposes to use a deep operator network to develop a connection between the pre- and post-injection biomechanical metrics of the left ventricular using a variety of imaging techniques. Overall, this is a well-written proposal with clearly developed expected outcomes, potential pitfalls, and mitigation strategies. The PI is an early-career faculty member with an excellent pedigree as well as the required background in both biomedical areas, and has been collaborating with high-level researchers in the machine learning field. The motivation for pursuing this important research project is well presented. Furthermore, the PI has done an excellent job in identifying the technical barrier as well as barriers to competitiveness for federal grants from NIH and NSF. The institution is very supportive of early-career investigators.

Successful completion of this project will create enough data for a major NIH grant. The proposal is already written in the NIH format. This project will create compelling preliminary data for an advanced machine-learning model for an NIH or NSF grant, and the probability of attracting federal support is quite high. The budget is reasonable. Full funding is recommended.

Proposal #	095A-25
Institution	University of Louisiana at Lafayette
PI	Tanvir Faisal
Title	Computational Mechanobiology of In Situ Chondrocytes and Cartilage in Health and Disease
Requested	Year 1: $58,830 (Y2: $56,384; Y3: $54,938)
Recommended	Year 1: $58,750 (Y2: $56,384; Y3: $54,938)

The proposed research aims to advance the understanding of the biomechanical and biochemical changes in cartilage constituents contributing to early-stage osteoarthritis and develop a high-fidelity multiscale computational model. The PI has the necessary background for the work proposed here and has identified collaborators from several medical schools for cartilage sample supply. The success of the proposed research hinges on the supply of appropriate samples from collaborators. Overall, this is a well-written proposal with compelling logic and an adequate description of methods and protocols. For the experimental section, a very well-developed plan is also presented for statistical analysis and significance. If successful, this work will help us to understand the pathway of osteoarthritis, which is a key source of disability in humans. The PI founded the Musculoskeletal Mechanics & Multiscale Materials (4M) Lab at UL Lafayette. A detailed plan for future proposal submissions (NSF, NIH, DoD) and relevant publications is provided. Also, review comments are highlighted from earlier non-funded proposals showing that seed data are critical and the topic area has potential. The current proposal is already written in NIH format, with a clear description of the proposed method, expected outcomes, potential pitfalls, and alternative solutions. Furthermore, the proposal has strong fundamental science and engineering components, which could be attractive to NSF. The proposed budget plan is appropriate. Due to funding limitations, first-year funding of $58,750 is recommended, with full funding in years two and three.

Health and Medical Sciences

Proposal #	115A-25
Institution	University of Louisiana at Monroe
PI	Huy Dao
Title	Mechanistic Study of Air-Water Interface as the Root Cause of Protein Instability in Freeze-Thaw Processes
Requested	Year 1: $20,000
Recommended	Year 1: $20,000

The proposal seeks to identify where damage to proteins occurs due to freezing and thawing, hypothesizing that the negative impact of ice could be attributed to the presence of air bubbles formed during freezing, and the hydrophobicity of the associated air-water interface. This research may optimize and improve the deaeration technique to effectively minimize freeze-thaw damage, thus leading to safer and more stable protein-based therapeutics for industrial and clinical applications. The research team has developed a procedure that significantly reduces freezing-induced stress on bovine IgG by deaeration (alternatively known as degassing or the reduction of dissolved air level) and minimizing nanobubbles formation. If this pilot research is effective, they plan to propose a larger-scale study in collaboration with engineers to design equipment capable of rendering effective deaeration, which would be suitable for use in both industrial and clinical settings. The applicant is a new assistant professor with experience in the research area, but minimal experience with extramural funding. The co-investigators, while not located in Louisiana, are established researchers. The proposed project should significantly advance the PI's research agenda and support their research trajectory. The ability to reduce dissolved air is innovative. This research would be of interest to funding agencies and, in fact, the team has prepared a patent application. The budget for supplies, which is the major category of the request, appears appropriate. There is also a request for travel to present data at a national meeting, which normally would not be appropriate for the first year of a multi-year project. For a one-year project, however, this is deemed to be an appropriate cost. The timeline for the work and infrastructure of the institution are appropriate. Full funding is recommended.

Proposal #	085A-25
Institution	Tulane University
PI	James Park
Title	Stem-Cell Population Dynamics Underlying Acquired Drug Resistance in Glioblastoma
Requested	Year 1: $63,160 (Y2: $62,665; Y3: $50,571)
Recommended	Year 1: $63,160 (Y2: $62,665; Y3: $50,571)

Glioblastoma is a tumor for which effective therapy has been slow to be developed. Non-genetic cell plasticity of tumor cells and cancer stem cells has recently emerged as a key contributor to tumor progression and recurrence. The proposed research will examine how phenotypic heterogeneity and acquired drug resistance function by characterizing gene-regulatory networks driving cancer stem cell dynamics. Additionally, the completed project will define cell-cell networks driving phenotypic changes by development of cell-cell network models and identify gene expression programs across cell types that drive state transitions in the context of interactions between glioblastoma cells and immune cells (macrophages) to understand how they foster and sustain drug resistance in glioblastoma cells. The proposed project appears to be technically sound and includes a relevant power analysis to assure that data generated are statistically analyzable. It is possible that the results of this proposed project make fundamental advances in the field and affect other cancers and diseases. Understanding of mechanisms yielded by the proposed study will make contributions to basic science. The project results are likely to contribute to future treatments of glioblastoma. The PI is a new assistant professor, well trained, and productive in the research area, including securing a federally funded postdoctoral fellowship. The PI plans to form a mentorship committee, which strengthens the possibility of future research success. The institution appears to have the capability to serve as a base for building competitiveness. Results from this preliminary work will serve as pilot data for additional funding. The plan for overcoming existing barriers appears to be appropriate. Federal agencies that could be sources of funding include NIH, the American Cancer Society, and others. The proposed budget appears to be appropriate for both personnel and equipment/supply costs and should allow the proposed project to be completed. The PI is leveraging their start-up package as well to achieve the study aims. Full funding is recommended.

Proposal #	015A-25
Institution	Louisiana State University and A&M College
PI	Nicholas Fears
Title	Quantifying the Impact of Visuomotor Planning and Execution During Activities of Daily Living in Autistic Children
Requested	Year 1: $72,050 (Y2: $67,350; Y3: $59,475)
Recommended	Year 1: $72,050 (Y2: $67,350; Y3: $59,475)

The proposed project is designed to quantify precise visuomotor planning and execution differences underlying difficulties among individuals with autism during activities of daily living. The research integrates eye-tracking and motion capture methods to quantify complex eye and hand movements during daily activities. This should generate new knowledge to validate precise assessments of visuo-motor difficulties in autistic children. Integrating two physiological measures to quantify visuomotor capabilities of children with autism is innovative. A power analysis has been provided to help ensure that the results can be statistically analyzed. These results could provide a new direction of study for autism spectrum research. The PI identifies barriers to external funding competitiveness and how each will be addressed with the proposed project. If the investigative team can demonstrate feasibility of using these physiological measures to capture visuomotor capabilities of children with autism, the research would be competitive for external funding support. The institutional environment is strong for this research and the investigators are well suited to conduct it. The PI has an excellent publishing record. The contribution to basic science appears to be minimal, but the proposed study is very relevant to improving society by enhancing the understanding of spectrum and autistic illnesses. Since human studies are a part of this project, Institutional Review Board approval from the appropriate institutions must be obtained prior to commencement of any work. The project is likely to enhance the ability of the investigators to overcome existing barriers. If it is successful, it will provide new methods for analysis of autism, which should be of interest to medical researchers and practitioners and will make the investigators more competitive for extramural funding. Agencies that could support future studies include NIH and CDC. The budget appears to be appropriate for successful completion of the proposed project. Full funding is recommended.

Proposal #	064A-25
Institution	Nicholls State University
PI	Xin Dong
Title	Self-Management Skills Trainings for College Students with Autism Spectrum Disorder
Requested	Year 1: $9,750
Recommended	Year 1: $9,750

This study brings together two PIs who propose to explore the impact of an eight-week intervention focused on social interactions and self-management among 40 college students with autism spectrum disorder. These methods do not seem cutting-edge or innovative, though they are important and could have wide impact. The sample size is appropriate for initial efficacy and feasibility studies. In particular, the PI has experience with younger populations; this broadens expertise to a different age group and demonstrates experience with a new population as well as feasibility. The project seeks to accomplish quite a bit in one year. It is unclear how they will recruit. The research team identifies productive benchmarks to include at least one conference presentation and one manuscript submission, while they are concurrently applying for NIMH funding. The environment is strong and they have excellent institutional resources through the Bridge to Independence Program. The collaborator is a co-PI, so will be very engaged in the project. The research is likely to attract federal funding and be a strong contribution to the science. Full funding is recommended.

Proposal #	101A-25
Institution	University of Louisiana at Lafayette
PI	Mo Li
Title	T Cell Receptor Diversity Analysis and Clonotype Assessment in Immunological Research
Requested	Year 1: $50,635 (Y2: $48,194; Y3: $47,452)
Recommended	Year 1: $47,724 (Y2: $48,194; Y3: $47,452)

Understanding of the nature of T cell receptor diversity could improve the ability to induce immune responses in non-responsive individuals. In this proposed study, the investigators will extend the robust multi-bin rarefying approach from previous studies on T cell receptor alpha diversity association analysis to beta diversity association analysis, accounting for sequencing depth, and develop a computationally efficient clustering algorithm-based procedure to improve the clonotype assessment across samples. These novel methods will be applied to a selection of previously published T cell receptor sequencing datasets sourced from the immune ACCESS database. The project appears to be technically sound, with use of an appropriate form of analysis and mathematical models. Although this is primarily a proposal to support development of the mathematical model, it would be enhanced by inclusion of a power analysis to assure that the

results will be statistically analyzable. This research will guide the future use of TCR and accuracy in identifying genetic intervention opportunities/understanding reasons why disease may occur, though these discoveries are likely far off. Barriers to competitiveness are clearly identified. The institution appears capable of serving as a base for building competitiveness. The PI is a relatively new assistant professor with a history of working in the field and publications in the area. The need for more experience publishing and conducting multi-year studies was identified. The PI and team have had excellent training and should be able to build a strong funded research trajectory. This is a very technical proposal, missing opportunities to describe fully how these findings will impact health research and practice. It is clear, however, that findings will provide research opportunities in other fields. The proposed project is basic science. If it is successful, societal benefits could result from a better understanding of how an immune response is generated. The research team has identified strong potential methods to overcome barriers. This type of biomedical research is likely to be supported in the future through federal funding from NIH and NSF. The budget levels in both personnel and equipment/supply categories appear to allow for successful completion of the proposed project. The request for travel to present data at a national meeting in the first year of the project is not well justified and the panel recommends it be eliminated from the first-year budget. Partial funding of $47,724 is recommended in year one, with travel removed, and full funding recommended in years two and three.

Appendix A

List of Proposals

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2024-25 Review Cycle

Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
001A-25	Dr. Garrett Hopper	Biological Sciences II	Louisiana State University Agricultural Center	3 Years	Movement ecology of host fishes for a federally threatened freshwater mussel [Margaritifera hembeli]	$56,959	$56,959	$56,459	$170,377
002A-25	Dr. Karuna Kharel	Biological Sciences I	Louisiana State University Agricultural Center	2 Years	Enhancing antimicrobial efficacy and preventing cross-contamination in agricultural water: Synergy of sanitizers and UV-C treatment.	$72,375	$67,199	$0	$139,574
003A-25	Dr. Erin McKinley	Biological Sciences II	Louisiana State University Agricultural Center	1 Year	Perceptions, Applications, and Market Demand for Medicinal Mushrooms among Adult Consumers in Louisiana	$20,000	$0	$0	$20,000
004A-25	Dr. Vinit Sehgal	Earth/Environmental Sciences	Louisiana State University Agricultural Center	3 Years	Satellite-based Soil Ecosystem Mapping for Louisiana	$57,139	$51,767	$51,749	$160,655
005A-25	Dr. James Wise	Biological Sciences II	Louisiana State University Agricultural Center	3 Years	Hexavalent Chromium Induces Metabolic Changes Driving Lung Cancer	$66,334	$66,334	$66,334	$199,002
006A-25	Dr. Ahmed Abdalla	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	Accurate determination of orthometric height by integrating geodetic measurements, geophysical models, and machine learning methods	$57,365	$54,609	$52,850	$164,824
007A-25	Prof. Aly Mousaad Aly	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Advancing Fluid-Structure Interaction Modeling and Validation for Enhanced Resilience of Wind Turbines, Solar Panels, and Coastal Protection Systems	$66,586	$66,586	$66,586	$199,758
008A-25	Dr. Mahathir Mohammad Bappy	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Privacy-Enhanced Federated Learning with Domain Adaptation for Cross-Systems Part Certification in Additive Manufacturing	$55,864	$54,864	$54,364	$165,092
009A-25	Dr. Arup Bhattacharya	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Optimizing Airborne Contamination Control using Physics-Informed Data-Driven Modeling	$67,151	$61,151	$61,151	$189,453
010A-25	Dr. Fabio Antonio Borges Vigil	Biological Sciences II	Louisiana State University and A & M College	3 Years	Opening of Kv7.4 channels in pericytes reduces blood-brain barrier breakdown after a traumatic brain injury.	$60,000	$50,000	$50,000	$160,000
011A-25	Dr. Shengli Chen	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	1 Year	Development of a time-efficient CPTu method for incorporation of setup effect in pile analysis and design	$19,968	$0	$0	$19,968
012A-25	Dr. Yuanhang Chen	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	A Pilot Study on CO2 Thermodynamics and Transient Multiphase Flow under Metastable Non-Equilibrium Conditions	$67,675	$67,031	$64,150	$198,856
013A-25	Dr. Noemie Elgrishi	Chemistry	Louisiana State University and A & M College	1 Year	Molecular sponges for PFAS removal: targeting cost-effectiveness and selectivity	$20,000	$0	$0	$20,000
014A-25	Prof. Tasnuva Farheen	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	A comprehensive Framework for Thermal Effects and Security Vulnerability Analysis in Multi-Chiplet Heterogeneous Systems	$68,566	$68,000	$62,000	$198,566
015A-25	Dr. Nicholas Fears	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Quantifying the impact of visuomotor planning and execution during activities of daily living in autistic children	$72,050	$67,350	$59,475	$198,875
016A-25	Dr. Mahmoud Habibnezhad	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Safety-Driven Worker Augmentation through Vision-Based Egocentric Design	$54,001	$54,001	$52,001	$160,003
017A-25	Dr. Jaclyn Hadfield	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Exercise beliefs and experiences that influence intention to exercise during prenatal and postpartum periods among Latina, Black, and non-Latina white women in the US	$80,801	$43,756	$58,156	$182,713
018A-25	Dr. Michael Hayes	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	A Louisiana Wastewater Mosaic: Fluorescence Characterization of Effluent to Determine Fate of Dissolved Organic Matter in Environmental Systems	$43,334	$43,334	$43,334	$130,002
019A-25	Dr. Robert Herbert	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Robot-assisted, conformal printing of soft materials	$39,730	$39,730	$39,541	$119,001
020A-25	Dr. Ryan Hulteen	Health and Medical Sciences	Louisiana State University and A & M College	2 Years	Preventing Physical Activity Decline During the Menopausal Transition	$77,516	$52,716	$0	$130,232
021A-25	Dr. Mahmood Jasim	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	A Human-Centered Approach to Building Multiparty Multilingual Meeting-Support Systems for English Language Learners (ELLs)	$61,311	$53,445	$50,823	$165,579
022A-25	Prof. Jangwook Jung	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	1 Year	A Multi-Objective Approach to Diabetic Wound Healing Scaffolds	$19,000	$0	$0	$19,000
023A-25	Dr. Gaurav Kandlikar	Biological Sciences II	Louisiana State University and A & M College	3 Years	Soil microbial effects on plant community responses to fire in longleaf pine savannas	$64,429	$57,769	$27,669	$149,867
024A-25	Dr. Yong-ha Kim	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Development of an Advanced Mathematical Model to Predict Indoor Radiation Exposure	$57,751	$52,501	$52,001	$162,253

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2024-25 Review Cycle

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						Year 1	Year 2	Year 3	Total
025A-25	Prof. Kisung Lee	Computer and Information Sciences	Louisiana State University and A & M College	1 Year	Investigating the effects of community detection for graph representation learning	$20,000	$0	$0	$20,000
026A-25	Prof. Semin Lee	Chemistry	Louisiana State University and A & M College	1 Year	Development of Synthetic Receptors for Lithium-Ion Separation	$20,000	$0	$0	$20,000
027A-25	Dr. YONG-CHEOL LEE	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	1 Year	Multi-layered Digital Twins for Improving Resiliency of Infrastructure Systems and Vulnerable Communities	$20,000	$0	$0	$20,000
028A-25	Prof. Christopher Marvel	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Discovering Mechanisms Underlying Mechanically Driven Phase Transformations of Aluminum Oxide	$61,330	$60,937	$60,479	$182,746
029A-25	Dr. Fabio Mendes	Biological Sciences II	Louisiana State University and A & M College	3 Years	Novel phylogenetic statistical models for integrating molecular and morphological data	$49,465	$47,965	$47,965	$145,395
030A-25	Dr. Xiangyu Meng	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	Physics-Informed Learning for Perception, Planning and Control of Autonomous Systems	$60,770	$60,770	$60,770	$182,310
031A-25	Dr. Flavia Montano Centellas	Biological Sciences II	Louisiana State University and A & M College	3 Years	Environmental related changes in distribution, ecology and genetic structure of montane birds	$89,892	$51,908	$36,700	$178,500
032A-25	Dr. SYDNEY MOYO	Biological Sciences II	Louisiana State University and A & M College	3 Years	Connecting the dots: unravelling the effects of aquatic subsidies on terrestrial consumers	$45,687	$44,590	$22,918	$113,195
033A-25	Prof. Tetsu Ouchi	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Toughening Elastomeric Materials through Topological Energy Dissipation	$56,864	$56,864	$56,864	$170,592
034A-25	Dr. Efthymios Papadopoulos	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Prehabilitation among White and Black patients prior to colorectal cancer surgery	$77,819	$73,037	$31,332	$182,188
035A-25	Dr. Flavia-Ioana Patrascu	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Preparing for the Next Crisis: Integrative Intelligent Systems for Enhanced Resilience	$89,408	$57,918	$52,626	$199,952
036A-25	Dr. Bruno Rego	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	A deep operator network model to enable personalized hydrogel injection therapies after heart attack	$64,210	$63,410	$61,410	$189,030
037A-25	Dr. Adrian Stein	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Enhancing Petrochemical Safety and Cybersecurity: The Essential Role of Global Sensitivity Analysis and Shapley Effects	$54,008	$50,508	$49,508	$154,024
038A-25	Dr. Wan-Chun Su	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Timing Matters: Exploring the Effect of Parent Education on Behavioral and Neural Synchrony during Parent-Child Interactions, a Hyperscanning fNIRS Study	$60,567	$58,919	$58,919	$178,405
039A-25	Dr. Bikram Subedi	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Wastewater Surveillance as an Early Warning System for the Consumption of Illicit, Controlled, and New Psychoactive Substances	$74,985	$60,000	$50,159	$185,144
040A-25	Dr. Xavier Thompson	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	ROAR: Recovery Outcomes following ACL Reconstruction	$61,820	$52,070	$52,070	$165,960
041A-25	Dr. Willem van Boxtel	Health and Medical Sciences	Louisiana State University and A & M College	3 Years	Facilitating conversational alignment in older adults and people with aphasia: a syntactic priming hyperscanning study	$76,117	$53,416	$52,496	$182,029
042A-25	Prof. Clifton Wagner	Chemistry	Louisiana State University and A & M College	3 Years	Synthesis of silylsubstituted borazines and aluminazines as precursors to functionalized hexagonal triel nitrides	$78,020	$47,770	$46,270	$172,060
043A-25	Dr. Yanyu Wang	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	3 Years	Equity-Driven Disaster Resilience: A Community-Centric Approach for Predicting and Mitigating Disaster Impacts	$67,219	$61,122	$61,122	$189,463
044A-25	Prof. Hsiao-Chun Wu	Computer and Information Sciences	Louisiana State University and A & M College	1 Year	High-Dimensional Data Analysis for Future Machine Learning and Artificial Intelligence	$20,000	$0	$0	$20,000
045A-25	Dr. Xugui Zhou	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	Safety Assurance in Cyber-Physical Systems	$69,499	$65,686	$63,208	$198,393
046A-25	Dr. Yimin Zhu	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana State University and A & M College	1 Year	Advanced Analytics to Enable Digital Twin Implementations for Predicting Human Heat Exposure	$20,000	$0	$0	$20,000
047A-25	Dr. Dania Rishiq	Health and Medical Sciences	Louisiana State University Health Sciences Center - New Orleans	3 Years	Hearing Aid Effects on Gait and Postural Kinematics	$60,054	$52,987	$52,266	$165,307
048A-25	Dr. Xi Jin	Health and Medical Sciences	Louisiana State University in Shreveport	2 Years	Artificial intelligence approaches for predicting the risk of health problem in American adults using National Health and Nutrition Examination Survey [NHANES] data 1999 to 2024	$53,373	$53,373	$0	$106,746

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2024-25 Review Cycle

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						Year 1	Year 2	Year 3	Total
049A-25	Dr. Stuart Nielsen	Biological Sciences II	Louisiana State University in Shreveport	1 Year	Generating chromosome-level genomes to investigate fine scale convergent evolution in non-model organisms.	$20,000	$0	$0	$20,000
050A-25	Dr. Sven Eklund	Chemistry	Louisiana Tech University	3 Years	Investigating the use of Base-Stabilized Monomers and Organosilane Crosslinkers to Enhance the Microstructure Properties of Frontally Polymerized Geopolymer Cement	$44,525	$54,525	$44,525	$143,575
051A-25	Dr. Arwa Fraiwan	Biological Sciences I	Louisiana Tech University	3 Years	Exploring Novel Electrode Materials and Structures for Enhancing Miniaturized Microbial Fuel Cell Usability in Biosensing Applications	$79,941	$60,689	$58,968	$199,598
052A-25	Dr. Steven Jones	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana Tech University	3 Years	Quantitative Model to Relate Erythrocyte-Borne Nitric Oxide to Pulmonary Vascular Smooth Muscle Tone	$64,206	$62,585	$62,978	$189,769
053A-25	Dr. Masood Sepehrimanesh	Health and Medical Sciences	Louisiana Tech University	2 Years	Late-onset amyotrophic lateral sclerosis related changes in astrocytes after cell phone radiation exposure	$87,070	$94,163	$0	$181,233
054A-25	Dr. Michael Wells	Biological Sciences I	Louisiana Tech University	1 Year	Mining the prokaryotic periodic table for valuable metal and metalloid nanoparticles	$20,000	$0	$0	$20,000
055A-25	Prof. Sandra Zivanovic	Engineering B [Industrial, Materials, Mechanical, etc.]	Louisiana Tech University	1 Year	Exploration of zinc oxide thin films for memristors and its physical processes	$20,000	$0	$0	$20,000
056A-25	Dr. Kevin Du Clos	Earth/Environmental Sciences	Louisiana Universities Marine Consortium	3 Years	Phytoplankton responses to metallic nanoparticles in personal care products	$52,945	$49,144	$44,675	$146,764
057A-25	Dr. Havalend Steinmuller	Earth/Environmental Sciences	Louisiana Universities Marine Consortium	2 Years	Quantifying global nitrogen cycling in mangroves and tidal marshes	$68,795	$66,595	$0	$135,390
058A-25	Dr. Qi Guo	Engineering B [Industrial, Materials, Mechanical, etc.]	McNeese State University	3 Years	Enhancing Building Energy Efficiency with AI-Driven Solutions	$69,500	$65,875	$64,625	$200,000
059A-25	Dr. Sonya Hidalgo	Health and Medical Sciences	McNeese State University	3 Years	Developing Standards for the use of Virtual Reality Simulations in Medical Laboratory Science Clinical Experiences	$34,949	$32,499	$32,499	$99,947
060A-25	Dr. Janak Paudyal	Chemistry	McNeese State University	3 Years	Machine Learning-assisted Paper-based SWCNT Electrochemical Sensor for Simultaneous Detection of Catecholamines in Urine	$70,000	$60,000	$60,000	$190,000
061A-25	Dr. Cunzhi Zhao	Computer and Information Sciences	McNeese State University	3 Years	Development of a Neural Network-Based Battery Lifespan Model for Microgrid Scheduling Optimization via EV Battery Data	$63,020	$63,020	$63,020	$189,060
062A-25	Dr. Abby Adams	Biological Sciences II	Nicholls State University	3 Years	Metabolic and immunological response of fiddler crabs and crayfish as biomarkers of environmental health in southeast Louisiana	$55,456	$55,087	$54,982	$165,525
063A-25	Dr. Timothy Clay	Biological Sciences II	Nicholls State University	3 Years	Impacts of climate change on community assemblages, trophic levels, and keystone species	$47,239	$54,930	$54,930	$157,099
064A-25	Dr. Xin Dong	Health and Medical Sciences	Nicholls State University	1 Year	Self-management skills trainings for college students with Autism Disorder Spectrum	$9,750	$0	$0	$9,750
065A-25	Dr. Katherine Galloway	Biological Sciences II	Nicholls State University	1 Year	Ecomorphology of invasive apple snails: examining how environmental changes affect form and function relationships of shells	$10,217	$0	$0	$10,217
066A-25	Dr. Himanshu Raje	Biological Sciences I	Nicholls State University	1 Year	Transcriptional Response of E. coli biofilms to T4 Phage Infection and nutrient deprivation	$19,800	$0	$0	$19,800
067A-25	Dr. Enmin Zou	Biological Sciences II	Nicholls State University	1 Year	Analysis of epidermal transporters responsible for exoskeletal mineralization in the blue crab, Callinectes sapidus: a transcriptomic approach	$20,000	$0	$0	$20,000
068A-25	Dr. Adonay Sissay	Chemistry	Northwestern State University	3 Years	Propagator Mixed with Machine Learning for the Time-Dependent Kohn-Sham Equations	$30,766	$30,266	$30,266	$91,298
069A-25	Dr. Susan Burke	Biological Sciences II	Pennington Biomedical Research Center	2 Years	Role of Mitochondrial and Peroxisomal Fatty Acid Oxidation in Pancreatic Beta Cell Function	$63,160	$57,760	$0	$120,920
070A-25	Dr. Sita Aggarwal	Health and Medical Sciences	Southeastern Louisiana University	2 Years	Effect of watermelon seed powder derived alkaline phosphatase on in vitro mineralization	$34,218	$30,218	$0	$64,436
071A-25	Dr. Mohammad Ahmed	Engineering B [Industrial, Materials, Mechanical, etc.]	Southeastern Louisiana University	1 Year	Additively Manufactured Thermoplastic Foams Using Blowing Agent Filled Filament	$19,870	$0	$0	$19,870
072A-25	Dr. Justin Anderson	Biological Sciences I	Southeastern Louisiana University	3 Years	Reactivation and diversity of human herpesviruses in college students	$44,850	$44,850	$44,850	$134,550

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2024-25 Review Cycle

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						Year 1	Year 2	Year 3	Total
073A-25	Dr. James Cho	Biological Sciences I	Southeastern Louisiana University	3 Years	Development of Selective Antibacterial Nanoparticles Using Insect-Derived Proteins as Targeted Binding Agents for Enhanced Pathogen-Specific Lethality via the Protein/Peptide-Panning [P2-Pan] Method	$44,218	$44,066	$43,949	$132,233
074A-25	Dr. Krutthika Hirebasur Krishnappa	Computer and Information Sciences	Southern University and A&M College - Baton Rouge	2 Years	Implementing Quantum Reinforcement Learning for Hallucination Reduction Using a Siamese Neural Network	$20,000	$0	$0	$20,000
075A-25	Dr. Samridhi Chaturvedi	Biological Sciences II	Tulane University	3 Years	Using an evolutionary genomics approach to predict species response to climate change in Neotropical Pipevine Swallowtail Butterflies	$75,750	$38,770	$5,500	$120,020
076A-25	Prof. Matthew Czapiga	Earth/Environmental Sciences	Tulane University	3 Years	Eco-Geomorphological Controls on Deltaic Channel Maturation and Fine Sediment Capture	$60,406	$58,406	$54,406	$173,218
077A-25	Dr. Rebecca Faust	Computer and Information Sciences	Tulane University	3 Years	Visual Inspection and Debugging of Computational Notebooks	$46,755	$46,555	$46,555	$139,865
078A-25	Prof. Shuaihua Gao	Biological Sciences I	Tulane University	3 Years	Harnessing Fluorinases for PET Cancer Imaging and Defluorinases for Environmental Fluorochemical Detoxification	$66,216	$63,216	$61,216	$190,648
079A-25	Prof. Scott Grayson	Chemistry	Tulane University	1 Year	Synthesis and characterization of a range of branched poly[ethylene brassylates], a novel but substantially inexpensive non-polar polyester.	$20,000	$0	$0	$20,000
080A-25	Dr. Mykel Green	Engineering B [Industrial, Materials, Mechanical, etc.]	Tulane University	3 Years	Injectable Hydrogel for Enhanced Stem Cell Engraftment in Bone Marrow Transplantation	$53,065	$53,065	$53,065	$159,195
081A-25	Prof. Wenxiao Guo	Chemistry	Tulane University	3 Years	Advancing the Understanding and Control of Proton Activity at Electrochemical Interfaces for Electrocatalysis	$57,251	$56,435	$56,384	$170,070
082A-25	Dr. Daniel Howsmon	Biological Sciences I	Tulane University	3 Years	Elucidating estrogen-influenced bistability between fibrotic and calcification signaling in calcific aortic valve disease	$60,439	$59,951	$59,510	$179,900
083A-25	Prof. Alexander McSkimming	Chemistry	Tulane University	3 Years	Terminal Hydride Complexes of High-spin Fe and Mn	$40,620	$40,260	$40,620	$121,500
084A-25	Dr. Jiang Ming	Computer and Information Sciences	Tulane University	1 Year	Boosting Software Security Analysis via Accurate Hardware Events Profiling	$19,503	$0	$0	$19,503
085A-25	Prof. James Park	Health and Medical Sciences	Tulane University	3 Years	Stem-Cell Population Dynamics Underlying Acquired Drug Resistance in Glioblastoma	$63,160	$62,665	$50,571	$176,396
086A-25	Prof. Yi Wang	Earth/Environmental Sciences	Tulane University	3 Years	An ultra-high-resolution investigation of the Northern Gulf of Mexico dead zone on interannual to centennial timescales in the Common Era	$79,229	$59,832	$49,829	$188,890
087A-25	Prof. Yanxu Zhang	Earth/Environmental Sciences	Tulane University	3 Years	The potential emission, hydrological transport, and ecological risk of emerging pollutant 6PPD-Q at the global scale	$60,019	$55,971	$51,922	$167,912
088A-25	Prof. Zizhan Zheng	Computer and Information Sciences	Tulane University	1 Year	Enhancing LLM Safety via Constrained Fine-Tuning and Decoding	$19,903	$0	$0	$19,903
089A-25	Dr. Haitao Zhang	Biological Sciences II	Tulane University Health Sciences Center	3 Years	Interaction of androgen receptor hotspot mutations	$47,619	$46,177	$49,555	$143,351
090A-25	Dr. Erez Aghion	Earth/Environmental Sciences	University of Louisiana at Lafayette	3 Years	Optimizing Resource Investment and Effort in Environmental Programs for Curbing Pollutants, Habitat Restoration and Combating Invasive Species, through Informed Stochastic Steering Strategies	$96,520	$91,814	$8,671	$197,005
091A-25	Dr. Sercan Aygun	Computer and Information Sciences	University of Louisiana at Lafayette	3 Years	End-to-End tiny Machine Learning Systems: Synergistic Computing with Emerging Paradigms	$70,990	$67,025	$61,060	$199,075
092A-25	Dr. Andrei Chistoserdov	Biological Sciences I	University of Louisiana at Lafayette	1 Year	Biodiesel production by oleaginous yeast and bacteria.	$20,000	$0	$0	$20,000
093A-25	Dr. Shuvalaxmi Dass	Computer and Information Sciences	University of Louisiana at Lafayette	1 Year	Democratizing Cybersecurity Pedagogy: Visual Modeling as an Instrument for Advancing Inclusive Education	$20,000	$0	$0	$20,000
094A-25	Dr. Natalie Douglas	Health and Medical Sciences	University of Louisiana at Lafayette	3 Years	Optimizing Dementia Care in Louisiana Nursing Homes: Adapting the Individualized Positive Psychosocial Interaction Program	$67,955	$64,308	$36,818	$169,081

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2024-25 Review Cycle

Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
095A-25	Dr. Tanvir Faisal	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	3 Years	Computational mechanobiology of in situ chondrocytes and cartilage in health and disease	$58,830	$56,384	$54,938	$170,152
096A-25	Dr. Dhan Lord Fortela	Computer and Information Sciences	University of Louisiana at Lafayette	2 Years	A New Approach to Improving the Training of Physics-Informed Machine Learning [PIML]	$42,445	$40,510	$0	$82,955
097A-25	Dr. Li Hui	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	3 Years	Artificial Intelligence-Enhanced Ultra-High Performance Concrete for Future-Proof Infrastructure: Enhancing Resilience and Adaptability	$58,048	$57,033	$56,098	$171,179
098A-25	Mr. Jiaxin Jin	Biological Sciences I	University of Louisiana at Lafayette	3 Years	Applications of Chemical Reactions Networks in Mathematical Biochemistry	$71,140	$65,388	$63,010	$199,538
099A-25	Dr. Heather Kirkpatrick	Earth/Environmental Sciences	University of Louisiana at Lafayette	3 Years	Untangling zircon-melt partitioning using natural samples with applications to Hadean zircon	$70,016	$68,191	$60,668	$198,875
100A-25	Dr. Sohyoung Lee	Biological Sciences I	University of Louisiana at Lafayette	3 Years	Pathogenesis of Adrenomedullin-Driven Host Glycan Regulation During Salmonella Infections	$101,621	$49,100	$49,225	$199,946
101A-25	Dr. Mo Li	Health and Medical Sciences	University of Louisiana at Lafayette	3 Years	T cell receptor diversity analysis and clonotype assessment in immunological research	$50,635	$48,194	$47,452	$146,281
102A-25	Dr. Mark McDonald	Earth/Environmental Sciences	University of Louisiana at Lafayette	3 Years	Spatial heterogeneity of biogeochemical cycling and microbial function in thawing permafrost	$72,755	$60,805	$60,305	$193,865
103A-25	Dr. Ismatara Reena	Health and Medical Sciences	University of Louisiana at Lafayette	3 Years	Effectiveness of Classroom WISE and CIE WISE on Educators? Mental Health Literacy (MHL) and Ability to Support Student Mental Health (MH) and Well-Being in Multicultural Classrooms in Louisiana	$69,799	$65,063	$65,134	$199,996
104A-25	Dr. Min Shi	Computer and Information Sciences	University of Louisiana at Lafayette	3 Years	Mitigating Unfairness in Foundation Models for Medical Applications	$65,168	$60,300	$55,924	$181,392
105A-25	Dr. Krishna Prasad Shrestha	Chemistry	University of Louisiana at Lafayette	3 Years	Ammonia as a Hydrogen Vector and Future Energy Carrier: A Detailed Kinetic Modeling of NH3/H2 and its blend with C1 Fuels	$59,845	$58,910	$57,974	$176,729
106A-25	Dr. Melissa Toups	Biological Sciences II	University of Louisiana at Lafayette	3 Years	Why so many Ys? Unraveling the role of local adaptation, sexual antagonism, and drift in the evolution of neo-sex chromosomes	$89,370	$55,258	$54,360	$198,988
107A-25	Dr. Andrea Westerband	Biological Sciences II	University of Louisiana at Lafayette	3 Years	Living fast and dying young: how temporal variation in plant resource-utilization strategies shapes performance and demographic outcomes	$78,094	$63,084	$58,060	$199,238
108A-25	Dr. Robyn Zerebecki	Biological Sciences II	University of Louisiana at Lafayette	3 Years	Understanding the mechanisms maintaining microgeographic local adaptation in an estuarine foundation plant to predict how coastal marshes will respond to sea-level rise	$79,408	$78,531	$42,016	$199,955
109A-25	Dr. Boyang Zhang	Engineering B [Industrial, Materials, Mechanical, etc.]	University of Louisiana at Lafayette	3 Years	A Novel Planning and Control Paradigm for Autonomous Multi-Agent Robotics	$93,965	$53,710	$50,774	$198,449
110A-25	Prof. Rui Zhang	Earth/Environmental Sciences	University of Louisiana at Lafayette	3 Years	Monitoring subsurface fault movement and potential subsidence in south Louisiana area by using the existing fiber optical network of Louisiana Optical Network Initiative [LONI] as Distributed Acoustic Sensor [DAS]	$99,348	$55,316	$29,903	$184,567
111A-25	Dr. Hao Zheng	Computer and Information Sciences	University of Louisiana at Lafayette	3 Years	Enhancing Computational Pathology through Automated Large-Scale Multi-Modal Learning	$61,723	$54,475	$53,424	$169,622
112A-25	Dr. Andrew Bolinger	Biological Sciences I	University of Louisiana at Monroe	3 Years	Ligand-Based Drug Design to Explore the Role of GPR151 in Regulating Substance Use Disorder	$75,000	$65,000	$55,000	$195,000
113A-25	Dr. Anastasia Couvillon	Biological Sciences II	University of Louisiana at Monroe	2 Years	Modelling Grey Fox [Urocyon cinereoargenteus] Distribution, Abundance, and Habitat Selection in Kisatchie National Forest, Louisiana	$43,104	$41,104	$0	$84,208
114A-25	Dr. Ross Couvillon	Biological Sciences II	University of Louisiana at Monroe	1 Year	Behavioral modulation of phenotypically plastic traits in a turtle model	$19,447	$0	$0	$19,447
115A-25	Dr. Huy Dao	Health and Medical Sciences	University of Louisiana at Monroe	1 Year	Mechanistic Study of Air-Water Interface as the Root Cause of Protein Instability in Freeze-Thaw Processes	$20,000	$0	$0	$20,000
116A-25	Dr. Tyler Fricker	Earth/Environmental Sciences	University of Louisiana at Monroe	2 Years	Expanding Predictive Modeling Frameworks for Tornado Casualties	$39,860	$39,860	$0	$79,720

Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
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Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
117A-25	Dr. Ahmad Kabir	Biological Sciences I	University of Louisiana at Monroe	3 Years	Unveiling the role of Trichoderma harzianum in shaping the host transcriptome and rhizosphere microbiome to enhance alkaline stress tolerance in soybean	$38,221	$34,221	$32,221	$104,663
118A-25	Dr. John Rakus	Chemistry	University of Louisiana at Monroe	3 Years	Hsc70 interactions in the regulation of the macrophage lipopolysaccharide response	$61,640	$58,940	$58,940	$179,520
119A-25	Dr. Shreya Banerjee	Computer and Information Sciences	University of New Orleans	3 Years	Visual and Dynamic Qualitative Mechanical Problem-Solving Using Explainable AI and Commonsense Reasoning	$61,762	$59,600	$59,350	$180,712
120A-25	Dr. Elliott Beaton	Health and Medical Sciences	University of New Orleans	3 Years	Community-Based After-School Programs as Public Health Tools: Reducing Physiological Stress in At-Risk Adolescents	$65,128	$60,505	$60,405	$186,038
121A-25	Dr. Santiago Claramunt	Biological Sciences II	University of New Orleans	3 Years	The Genomics of Adaptability	$61,818	$61,818	$49,318	$172,954
122A-25	Dr. Debra Karhson	Biological Sciences II	University of New Orleans	3 Years	Neurobiology of Social Connections in Autism Spectrum Disorder	$58,642	$57,922	$54,526	$171,090
123A-25	Dr. Abdullah Nur	Computer and Information Sciences	University of New Orleans	3 Years	Comprehensive Internet Network Topology Engine with Advanced Customization and Simulation Features	$53,700	$53,329	$52,975	$160,004
124A-25	Dr. Abdullah Al Redwan Newaz	Computer and Information Sciences	University of New Orleans	3 Years	Intelligent Multi-Robot Information Gathering Systems: Studying Marine Life Activities with Autonomous Underwater Robots	$62,591	$62,299	$60,364	$185,254
125A-25	Dr. Anika Sarkar	Engineering B [Industrial, Materials, Mechanical, etc.]	University of New Orleans	3 Years	Nonlinear Rotational Inertia Mechanism for Adaptive Vibration Control in Offshore Wind Turbines	$63,600	$55,274	$46,415	$165,289

Total Number of Proposals Submitted	125
Total Funds Requested for First Year	$6,783,630
Total Funds Requested for Second Year	$5,633,198
Total Funds Requested for Third Year	$4,620,453
Total Funds Requested	$17,037,281

Appendix B

RCS Rating Forms

SUBJECT-AREA PANEL PROPOSAL EVALUATION FORM
2-3 YEAR RCS PROJECT DURATION
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
_____	____	_____	_____	_____

RCS One-Year Funding for New Research Component

Proposal Evaluation Form for TENURED Applicants

Criteria	Points
1. Does the proposed research project appear to be technically and scientifically sound? Does the proposed research indicate a significant shift in the applicant's research focus? (50 points)	_____
2. Do the proposed research and supporting materials provide convincing evidence of the potential to attract federal funding in the near term? (40 points)	_____
3. Are the budget, timeline, and infrastructure reasonable? (10 points)	_____
4. Total Score (of a possible 100 points)	_____

COMMENTS:

RCS One-Year Funding for New Research Component

Proposal Evaluation Form for TENURE-TRACK Applicants

Criteria	**Points**
1. Does the proposed research project appear to be technically and scientifically sound? Will the proposed research significantly enhance the applicant's research focus, substantially advance the exploration of new ideas, and/or enable the applicant to become proficient in utilizing cutting-edge techniques? (50 points)	_____
2. Do the proposed research and supporting materials provide convincing evidence of the potential to attract federal funding in the near term? (40 points)	_____
3. Are the budget, timeline, and infrastructure reasonable? (10 points)	_____
4.Total Score (of a possible 100 points)	_____

COMMENTS: