

REPORT TO THE LOUISIANA BOARD OF REGENTS

**RESEARCH & DEVELOPMENT COMPONENT
BOARD OF REGENTS SUPPORT FUND**

**REVIEW OF COMPETITIVE PROPOSALS SUBMITTED IN THE
RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)**

FY 2023-24 COMPETITION

March 2024



**REPORT OF THE FINAL PANEL
BOARD OF REGENTS SUPPORT FUND RESEARCH
RESEARCH COMPETITIVENESS SUBPROGRAM (RCS)
FY 2023-24**

BACKGROUND INFORMATION

One hundred-twenty (120) proposals requesting a total of \$5,862,824 in first-year funds were submitted for funding consideration in fiscal year (FY) 2023-24 to the Research Competitiveness Subprogram (RCS) of the Board of Regents Support Fund (BoRSF). Eight (8) disciplines were eligible, including Agricultural Sciences, Biological Sciences I, Biological Sciences II, Computer & Information Sciences, Earth & Environmental Sciences, Engineering A, Physics, and Social Sciences.

THE REVIEW PROCESS

The proposals submitted were reviewed by discipline-based panels. The chairs 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 March of 2024, the final panel chair highly recommended thirty-two (32) proposals be funded for a total of \$1,349,933 in first-year monies, based on funds projected to be available. Of the proposals recommended, twenty-five (25) are traditional multi-year projects and seven (7) are one-year projects. A total of \$3,599,551 was recommended over three years.

Table I of this report contains the rank-order list of all proposals highly recommended for funding. Table II lists the final panel chair and contributing consultants comprising the eight (8) 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. Unless otherwise noted in the consultant comments, budget reductions recommended by the review panelists are to be made at the discretion of the principal investigators.

All proposals not recommended for funding will receive debriefing material summarizing reviewer assessments of the project in July 2024, 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
FY 2023-24 RCS Proposals Highly Recommended for Funding

Rank	Proposal #	Institution	PI	1st-Year Recommendation	2nd-Year Recommendation	3rd-Year Recommendation
1	089A-24	Tulane	Henry Ashbaugh	\$20,000	\$-----	\$-----
2	004A-24	LSU-AG	Honglin Feng	\$39,229	\$39,229	\$39,229
3	090A-24	Tulane	Benjamin Deen	\$53,181	\$53,181	\$53,181
4	019A-24	LSU A&M	Qi Cai	\$25,793	\$25,793	\$25,793
5	061A-24	LSU A&M	Shaomian Yao	\$18,000	\$-----	\$-----
6	015A-23	LSU A&M	Ethan Anderson	\$60,000	\$60,000	\$60,000
7	064A-24	LSU A&M	Yanmengqian Zhou	\$78,275	\$74,151	\$25,348
8	052A-24	LSU A&M	Constantin Schrade	\$71,750	\$58,000	\$58,000
9	063A-24	LSU A&M	Fan Zhang	\$40,963	\$37,114	\$37,114
10	029A-24	LSU A&M	Huanping Huang	\$62,066	\$55,934	\$52,301
11	068A-24	LA Tech	Yun Chen	\$51,300	\$51,300	\$51,300
12	027A-24	LSU A&M	Benjamin Fehrman	\$58,235	\$58,235	\$58,235
13	005A-24	LSU-AG	Athanasios Gentimis	\$54,000	\$50,000	\$50,000
14	093A-24	Tulane	Saad Hassan	\$48,022	\$48,022	\$-----
15	088A-24	SU A&M	Congyuan Zeng Zeng	\$44,198	\$44,198	\$44,198
16	097A-24	Tulane	Daniel Straus	\$36,000	\$36,000	\$36,000
17	098A-24	TUHSC	Qiuyang Zhang	\$20,000	\$-----	\$-----
18	102A-24	ULL	Yin Feng	\$18,750	\$-----	\$-----
19	060A-24	LSU A&M	Chun Yang	\$20,000	\$-----	\$-----
20	034A-24	LSU A&M	Hyun Kyung Kim	\$52,576	\$52,576	\$52,576
21	009A-24	LSU-AG	Jeffrey Plumlee	\$42,000	\$40,000	\$35,000
22	007A-24	LSU-AG	Chien-Yu Huang	\$40,000	\$38,000	\$38,000
23	055A-24	LSU A&M	Ryoichi Teruyama	\$18,500	\$-----	\$-----
24	108A-24	ULL	Sen Liu	\$51,601	\$51,601	\$51,601
25	105A-24	ULL	Philip Hackney	\$46,500	\$46,500	\$46,500
26	039A-24	LSU A&M	Emily Marcinowski	\$44,190	\$43,651	\$42,149
27	091A-24	Tulane	Jennifer Fang	\$39,000	\$39,000	\$39,000
28	058A-24	LSU A&M	Zhiyu Wang	\$43,804	\$43,804	\$43,804
29	017A-24	LSU A&M	Sviatoslav Baranets	\$36,000	\$36,000	\$36,000
30	054A-24	LSU A&M	Chao Sun	\$20,000	\$-----	\$-----
31	026A-24	LSU A&M	Umar Farooq	\$60,000	\$60,000	\$60,000
32	072A-24	LA Tech	Lingxiao Wang	\$36,000	\$36,000	\$36,000
RCS Total Recommended Funds				1st Year	2nd Year	3rd Year
				\$1,349,933	\$1,178,289	\$1,071,329

Table II

FY 2023-24 RCS Review Panelists		
Name	School	Discipline
Final Panel		
Jeffrey Dean	University of Georgia	Plant Pathology
Biological Sciences I		
Maitreyi Das, chair	Boston College	Cell/Molecular/Genetics
Sudha Sharma	Howard University	Biochemistry, Pathology
Jeffrey Morris	University of Alabama-Birmingham	Microbiology
Biological Sciences II		
Daniel M. Suter, chair	Purdue University	Neuroscience/Cellular Biology
Joanne E. Curran	University of Texas-Rio Grande Valley	Genetics, Molecular Biology
Computer & Information Sciences		
Kai Zheng, chair	University of California-Irvine	Informatics
Qi Yu	Rochester Institute of Technology	Data Mining
Earth & Environmental Sciences		
Xiaobing Zhou, chair	Montana Tech University	Geophysics
Chunlei Fan	Morgan State University	Environmental Science
Agricultural Sciences		
Eugene Kelly, chair	Colorado State University	Soil & Crop Sciences
Benildo de los Reyes	Texas Tech University	Crop Sciences
Engineering A		
Brandon Weeks, chair	University of Nevada-Reno	Chemical
Tzuyang Yu	University of Massachusetts-Lowell	Civil
Bradley C. Bundy	Brigham Young University	Chemical
Mathematics		
Domenico D'Alessandro, chair	Iowa State University	
Alexandra Seceleanu	University of Nebraska	Commutative algebra
Physics		
Dipangkar Dutta, chair	Mississippi State University	Nuclear
Morten Eskildsen	University of Notre Dame	Condensed Matter
Social Sciences		
Thomas Holtgraves, chair	Ball State University	Social Psychology
Matthew Brashears	University of South Carolina	Psychology

FY 2023-24 Research Competitiveness Program

Priority Ranking of Proposals Highly Recommended for Funding

Rank	1
Proposal #	089A-24 (Engineering A)
Institution	Tulane University
PI	Henry Ashbaugh
Title	Accounting for Hydration Contributions to Surface Reactions
Requested	\$20,000
Recommended	\$20,000

This is a high-quality proposal that focuses on combining density functional theory (DFT) and classical approaches to model platinum (Pt) catalysis of compounds relevant to biomass conversion on Pt surfaces. Study of metal catalysts is important to the Louisiana economy, impacting fuels and other hydrocarbons. The PI is moving into a different field that will raise the stature of computational research in Louisiana. The PI clearly has the technical capability and experience to perform and advise the DFT and classical simulation approaches as demonstrated in prior publications. Multiple proposals to U.S. Department of Energy and NSF with collaborators are proposed as part of the work and the budget is focused solely on funding a graduate student. Strong collaborations are identified along with sources of funding. The budget is very reasonable. Full funding is recommended.

Rank	2
Proposal #	004A-24 (Biological Sciences I)
Institution	Louisiana State University Agricultural Center
PI	Honglin Feng
Title	Identification, Characterization and Development of Insecticidal MicroRNAs for Soybean Stink Bug Control
Requested	Y1: \$67,479; Y2: \$67,059; Y3: \$64,959
Recommended	Y1: \$39,229; Y2: \$39,229; Y3: \$39,229

The PI aims to identify and investigate the function of miRNAs in soybean and stink bug interactions and develop insecticidal miRNAs in gene-edited soybean crops for growers. This is an excellent proposal. The team is strong and should be able to jumpstart the PI's research program. The PI is well trained with a strong publication record for their career stage. Barriers are identified and a plan is presented to enhance competitiveness. The research design is technically sound and provides good training opportunities for students. This will generate sufficient preliminary data that the PI can publish and develop the necessary protocols to prepare competitive proposals for USDA and NSF funding. This project, if successful, will lead to the generation of pest-resistant

soybeans and will provide a significant advantage to the soybean agricultural community. Due to limited funds available, partial funding of \$39,229 is recommended in all three years.

Rank	3
Proposal #	090A-24 (Biological Sciences II)
Institution	Tulane University
PI	Benjamin Deen
Title	Probing the Functional Organization of the Anterior Temporal Lobe with Precision fMRI
Requested	Y1: \$55,181; Y2: \$53,673; Y3: \$54,142
Recommended	Y1: \$53,181; Y2: \$53,181; Y3: \$53,181

The PI proposes to develop multi echo fMRI protocols with better signal to noise data to achieve an improved functional mapping of the anterior temporal lobe (ATL) of the human brain. This is a very strong application from an excellent candidate. The Tulane Brain Institute has excellent faculty representation and research support. A new 3T MRI scanner will be installed and available for the PI's use. The knowledge to be developed will not only advance the understanding of the ATL, but also of dementia, and will guide surgical procedures for epilepsy. The application is well written, innovative, and addresses an important research area. The institutional match for the equipment request did not meet the 25% threshold required in the RFP. In order to keep the funding level in line with this requirement, partial funding of \$53,181 is recommended in year one. Partial funding of \$54,181 is also recommended in years two and three to keep the award in line with the requirement noted in section V.B.5 in the RFP that "the amount of RCS money requested for successive years of a research project may not increase, but should be at or below the level requested in year one".

Rank	4
Proposal #	019A-24 (Biological Sciences I)
Institution	Louisiana State University and A&M College
PI	Qi Cai
Title	Elucidating the Role of Laminin-411 in Glioblastoma Cell Migration
Requested	Y1: \$63,334; Y2: \$63,334; Y3: \$63,334
Recommended	Y1: \$25,793; Y2: \$25,793; Y3: \$25,793

The PI seeks support to develop a GBM on chip tumor model to investigate how Laminin overexpression impacts GBM migration and invasion. This proposal will allow the PI to develop the model and carry out the necessary experiments, leading to preliminary data and publications. It is an excellent proposal addressing a very significant research question and will have broader impacts on basic and clinical sciences. The PI has training in microfluidics and tissue engineering and a solid track record in developing and characterizing clinically relevant and engineered models

for investigating glioblastoma. Recent high-profile publications have made the PI a desirable collaborator within LSU A&M and more broadly, enhancing exposure, reputation, and competitiveness. The PI understands the areas that need to be strengthened for professional development and is very strategic about the plan to address them. This project can be funded by multiple federal agencies as well as specialized foundations focusing on cancer and glioblastoma. The work could lead to development of a new model for investigating cancer cells in their near-normal environment and will help to place the PI as a leader in the field. Due to limited funds available, partial funding of \$25,793 is recommended in all three years.

Rank	5
Proposal #	061A-24 (Biological Sciences I)
Institution	Louisiana State University and A&M College
PI	Shaomian Yao
Title	Strategies for the Purification and Therapeutic Exploration of Human iPSC-Derived Extracellular Vesicles
Requested	\$20,000
Recommended	\$18,000

The goal of this proposal is to isolate and purify hiMSC-derived small extracellular vesicles and test their potential for bone and cartilage regeneration. Distinct from the team's ongoing R21-funded research, the proposed experiments will allow them to establish a new approach and model system. The work plan is very reasonable and achievable in the timeframe allotted. The team is well equipped to achieve all goals. The PI is very productive. Due to limited funds available, partial funding of \$18,000 is recommended.

Rank	6
Proposal #	015A-24 (Biological Sciences II)
Institution	Louisiana State University and A&M College
PI	Ethan Anderson
Title	Reducing Addiction-Like Behavior via Cell-Type and Synapse-Specific Targeting in the Nucleus Accumbens
Requested	Y1: \$60,000; Y2: \$60,000; Y3: \$60,000
Recommended	Y1: \$60,000; Y2: \$60,000; Y3: \$60,000

This project seeks support for investigating whether cell-type and synapse-specific expression of phospholipase C gamma 1 could reduce heroin-seeking in rats. The research plan incorporates innovative approaches in molecular neuroscience in combination with behavioral analysis of substance abuse. This is a very strong proposal from an excellent candidate with significant research experience in substance abuse. Based on training and past performance, the PI has a high potential of attracting federal funding, especially from NIH. The plan is to submit an R01

application at the end of the first year of this award. The research environment is excellent. The department is very supportive of the candidate and has provided lab space, resources, and a startup package. This is a very important and timely area of research, given the opioid epidemic throughout the country. The budget is reasonable and significant matching funds from LSU A&M are provided. Full funding is recommended.

Rank	7
Proposal #	064A-24 (Social Sciences)
Institution	Louisiana State University and A&M College
PI	Yanmengqian Zhou
Title	Identifying and Testing Communication Strategies that Promote Accurate Health Decision-Making in the Face of Conflicting Advice
Requested	Y1: \$78,275; Y2: \$74,151; Y3: \$25,348
Recommended	Y1: \$78,275; Y2: \$74,151; Y3: \$25,348

This is a well-written proposal that describes an ambitious project to investigate how people make sense of conflicting health information, and how decision-making based on conflicting information can be improved. The research design is clear and sensible with each component logically fitting with the others. Multiple studies are proposed involving both qualitative and quantitative methods. The theoretical and substantive payoff from the research is likely to be quite high. The PI has a good record of publishing in high-quality journals and has the background and expertise to complete the project. The PI does identify specific barriers to competitiveness (e.g., lack of preliminary data and an insufficient number of relevant publications), as well as how completing this project would help to address them. Hence, research derived from this project has the potential to be competitive for future funding. The budget is appropriate. Full funding is recommended.

Rank	8
Proposal #	052A-24 (Physics)
Institution	Louisiana State University and A&M College
PI	Constantin Schrade
Title	Quantum Material Josephson Junctions for Quantum Simulation and Computation
Requested	Y1: \$71,750; Y2: \$58,000; Y3: \$58,000
Recommended	Y1: \$71,750; Y2: \$58,000; Y3: \$58,000

This project aims to address the paradigmatic model for quantum materials by developing a theoretical framework for a quantum simulator. The project will tackle a well-defined problem that has been overlooked in the field of quantum computing simulators. The proposal is technically sound and has the potential to produce significant advances in the field, having a lasting impact in a rapidly developing area of study. The PI has excellent credentials and should be able to submit

a very competitive grant proposal to federal agencies. In addition, the PI has very strong existing collaborations, which will help jump-start this proposal. The barriers to competitiveness are discussed in detail. Full funding is recommended.

Rank	9
Proposal #	063A-24 (Biological Sciences I)
Institution	Louisiana State University and A&M College
PI	Fan Zhang
Title	Unlocking the Remedial Potential of Soil Microbiome near a Hazardous Waste Thermal Treatment Site
Requested	Y1: \$62,266; Y2: \$54,266; Y3: \$37,114
Recommended	Y1: \$40,963; Y2: \$37,114; Y3: \$37,114

This proposal aims to investigate microbial functions in EPFR degradation and the effects of EPFR on host stress response using *C. elegans* as a model. The work plan is sound. This research will have a broad impact, especially in the current ecological climate. The PI has gathered good preliminary data through collaborations and is now seeking funding support to transform findings into an independent project. The PI seeks to apply for the NSF CAREER award and NIGMS R35, with this funding helping to build their research education and training portfolio. The PI is a trained microbiologist with a strong publication record. Overall, the project is a good investment and the PI has high potential to be successful in acquiring federal funding. Due to limited funds available, partial funding is recommended, providing \$40,963 in year one and \$37,114 in years two and three.

Rank	10
Proposal #	029A-24 (Earth & Environmental Sciences)
Institution	Louisiana State University and A&M College
PI	Huanping Huang
Title	Developing an Empirical Model for Estimating Landfalling Hurricane Wind Speeds in a Changing Climate
Requested	Y1: \$62,066; Y2: \$55,934; Y3: \$52,301
Recommended	Y1: \$62,066; Y2: \$55,934; Y3: \$52,301

This project will evaluate the performance of the statistical KD95 model using historical observations (1967 to 2022), attempting to improve the model by using time-varying parameters to accommodate changing climate and hurricane characteristics. Barriers to competitiveness were identified. The PI has a good publishing record and has collaborated with colleagues in the field. The main impact of this project will be the ability to more accurately forecast landfalling hurricane wind speeds. If successful, the results will help hurricane hazard mitigation and improve risk management. The project will contribute to basic science in coastal region climate change and

extreme weather. The project is likely to improve the PI's competitiveness. The budget is reasonable. Full funding is recommended.

Rank	11
Proposal #	068A-24 (Engineering A)
Institution	Louisiana Tech University
PI	Yun Chen
Title	A Novel Microfluidic-Based Filtration System to Remove PFAS for Water Purification
Requested	Y1: \$56,141; Y2: \$55,386; Y3: \$54,411
Recommended	Y1: \$51,300; Y2: \$51,300; Y3: \$51,300

This application seeks support for developing a novel microfluidic system to collect and filter contaminants from water. It is a very important topic which is relevant to the entire U.S. Gulf Coast. The project is technically sound, with each objective clearly defined by hypothesis and with sufficient details to perform the proposed research. The project could have a transformative impact on reducing pollution levels of an EPA-identified high-risk molecule. The schematics of the work plan are well thought out. This project will elevate the PI's institutional research in water and attract funding from NSF, the EPA, and local municipalities. Potential collaborations with other Louisiana universities are identified, which could lead to larger grant opportunities. The PI very clearly explains the specific barriers to competitiveness and how they will be overcome. The project has a high likelihood of success with an excellent management plan. Due to limited funds available, partial funding of \$51,300 is recommended in all three years.

Rank	12
Proposal #	027A-24 (Mathematics)
Institution	Louisiana State University and A&M College
PI	Benjamin Fehrman
Title	Fluctuating Systems, Random Environments, and Stochastic Algorithms
Requested	Y1: \$58,235; Y2: \$58,235; Y3: \$58,235
Recommended	Y1: \$58,235; Y2: \$58,235; Y3: \$58,235

This proposal focuses on stochastic analysis and seeks to understand and exploit randomness using analytic and probabilistic techniques. The PI identifies two major barriers to federal competitiveness: a lack of mentoring experience and a lack of academic networking. A compelling case is presented for overcoming these through RCS support. The PI has an impressive publication record in the proposed research area and is in position to successfully carry out the project. The proposed research is interesting, relevant in the field, and currently attractive to federal agencies. Full funding is recommended.

Rank	13
Proposal #	005A-24 (Agricultural Sciences)
Institution	Louisiana State University Agricultural Center
PI	Athanasios Gentimis
Title	AI Based Methodologies for Major Crops in Louisiana
Requested	Y1: \$74,314; Y2: \$60,531; Y3: \$55,531
Recommended	Y1: \$54,000; Y2: \$50,000; Y3: \$50,000

The PI proposes to leverage existing data related to yield prediction from agricultural research stations around Louisiana to create a comprehensive database for commodities and then train AI models to predict output variables, planting dates, and economic indices. The PI has the necessary training and experience for the proposed work. This proposal is generally well conceived and presented, capitalizing on previous successes to create a vision for a potential transformative outcome. The project concepts are presented in a clean and simple way without undermining the technical complexity of the work. The goals and specific objectives are clearly justified, and the project deliverables are realistic and achievable. The research is directly in line with the next frontier in plant science and its application to precision agriculture. The proposal identifies potential funding sources, including AFRI grants and ERME, with a timeline for application. Specific details on funding prospects are provided, including for AFRI and ERME and all seem within reach if the proposed research accomplishes its goals and objectives. Personnel costs appear high for this stage of work. Partial funding of \$54,000 is recommended in year one, with \$50,000 per year recommended in years two and three.

Rank	14
Proposal #	093A-24 (Computer and Information Sciences)
Institution	Tulane University
PI	Saad Hassan
Title	Enhancing Expressive and Receptive American Sign Language Learning Using AI-Powered Tools
Requested	Y1: \$48,022; Y2: \$50,330
Recommended	Y1: \$48,022; Y2: \$48,022

The proposed project aims to develop a sign language look-up system that leverages the recent advancement in isolated sign recognition and sign segmentation technologies to support learners of American Sign Language (ASL). The topic addressed is interesting and unique, and the project timeline appears to be realistic. The study will leverage several recent datasets that are readily accessible, enhancing feasibility and likelihood of success. The work will seek collaboration from local ASL and interpreting programs in New Orleans, including Delgado Community College, the University of New Orleans, and Tulane University. This is an excellent way to engage local communities in research as well as to facilitate dissemination of research results. If successful, this

work could introduce significant improvements to ASL education by creating a state-of-the-art sign language look-up system, which could in turn improve the quality of life of 600,000+ individuals in the U.S. who are d/Deaf. The project has strong potential for obtaining extramural funding support from federal funding agencies. The proposal presents a convincing case of barriers to competitiveness, including the lack of real-world adoption of sign language recognition systems and the need to build local collaborations and local research focuses. The work plan for overcoming barriers is clearly articulated. Full funding is recommended in year one, with partial funding of \$48,022 recommended in year two, in order to meet the requirement noted in section V.B.5 in the RFP that “the amount of RCS money requested for successive years of a research project may not increase, but should be at or below the level requested in year one”.

Rank	15
Proposal #	088A-24 (Engineering A)
Institution	Southern University and A&M College
PI	Congyuan Zeng Zeng
Title	Engineering Durable Dissimilar Metal Joints: A Solid-State Fabrication Approach Using Additive Friction Stir Deposition
Requested	Y1: \$50,189; Y2: \$50,189; Y3: \$50,189
Recommended	Y1: \$44,198; Y2: \$44,198; Y3: \$44,198

This proposal seeks to achieve durable dissimilar metal joints using the Additive Friction Stir Deposition (AFSD) technique. This is an excellent project using specialized facilities already in place. The award will enhance the PI’s ability to perform significant research. The timeline is reasonable and convincing. The PI has a good publication record on topics closely related to the research. Tasks are very clearly detailed and explained, with parameters identified. The topic is relevant to Louisiana and will have a strong impact on metal fabrication. This project will not just impact research, as excellent capstone ideas are presented for undergraduate engineering students. The research resulting from this project is likely to be funded by federal funding agencies. Due to limited funds available, \$44,198 per year is recommended in all three years.

Rank	16
Proposal #	097A-24 (Physics)
Institution	Tulane University
PI	Daniel Straus
Title	Enantiomorphic Control of Chiral Materials
Requested	Y1: \$52,362; Y2: \$52,362; Y3: \$52,361
Recommended	Y1: \$36,000; Y2: \$36,000; Y3: \$36,000

This project proposes to control the handedness of single crystals and thin films of inorganic and molecular chiral materials, which has the potential to enable transformative new technologies in

communications and optics. The project builds on the PI's previous work, is described in great detail, and is technically sound. Barriers to competitiveness are identified. The PI has access to adequate resources. If successful, the proposed project will revolutionize the field and have a very significant impact. The novel, untested approach of this proposal does make it high-risk, though success would come with high rewards. The PI has an excellent record, the right training, and a robust plan to mitigate risk and become competitive for external funding. Federal funding for materials synthesis and characterization is strong and expected to remain so. The requested budget is appropriate and includes cash matching by the institution. Due to limited funds available, partial funding of \$36,000 is recommended in each of the project's three years.

Rank	17
Proposal #	098A-24 (Biological Sciences II)
Institution	Tulane University Health Sciences Center
PI	Qiuyang Zhang
Title	Functional Role of USP26 in Castration-Resistant Prostate Cancer [CRPC]
Requested	\$20,000
Recommended	\$20,000

The PI plans to study the role of Ubiquitin-specific protease 26 (USP26) in castration-resistant prostate cancer (CRPC). USP26 is an interesting new target in prostate cancer, since patients can become resistant to androgen receptor (AR) targeted drugs. In Aim 1, the PI plans to investigate the mechanisms of how USP26 promotes CRPC in vitro and study how USP26 regulates the cell cycle and the amount of KIF5B protein. The KIF5B data are not that convincing. In Aim 2, the PI will use a prostate-specific *Usp26/Pten* double knockout mouse model to study the effect of USP26 in promoting CRPC. The proposed work is technically sound, and the PI has provided a large amount of preliminary data. The team has significant expertise in this area. The environment appears appropriate for the work and the plan is feasible. Some of the figures are not well explained and the page limit requirement was not followed. However, this is an important project that will likely attract federal funding. The budget is appropriate, and full funding is recommended.

Rank	18
Proposal #	102A-24 (Earth and Environmental Sciences)
Institution	University of Louisiana at Lafayette
PI	Yin Feng
Title	Exploration of a Self-Supervised Learning Framework for Identifying Groundwater Contaminant Sources
Requested	\$18,750
Recommended	\$18,750

This project aims to develop an innovative self-supervised learning framework for groundwater contaminant source identification. The PI intends to integrate deep learning (DL) with conventional numerical simulations. The project is expected to overcome limitations of existing methods by avoiding the need for pre-trained surrogate models, thus potentially increasing computational efficiency. The PI brings strong expertise in numerical modeling of subsurface flow and transport behaviors, as well as machine learning and DL models. The proposed project appears to be technically and scientifically sound. The methodological approach is detailed, innovative, and aligned with the project's objectives. One strength of the proposal is the demonstration of a clear understanding of the technical challenges, with a detailed approach to tackle them. The PI has a Petroleum Engineering background by training, and the proposed research integrates AI and DL into the underground water dynamic modeling. This represents a change in the PI's research direction, which could lead to new avenues for funding opportunities. Groundwater contaminant modeling is a topic that is attractive to funding agencies such as NSF. The one-year timeline is very reasonable. The budget is well structured with clear allocations for the graduate research assistant and overhead expenses, and is reasonable for the scope of work. Full funding is recommended.

Rank	19
Proposal #	060A-24 (Social Sciences)
Institution	Louisiana State University and A&M College
PI	Chun Yang
Title	Strategic Use of Multiple Emotions in Health Messages to Address Colon Cancer Disparity for African Americans in Louisiana
Requested	Year 1: \$20,000
Recommended	Year 1: \$20,000

The goal of this project is to identify specific strategies for using emotional appeals more effectively. The focus is on existing health disparities in Louisiana, specifically the disproportionate rates of colon cancer diagnosis and death in African Americans. The PI proposes to examine attentional processes using an eye tracking methodology (study 1) and then to examine the possible interaction of different emotions elicited by a message (study 2). The project has potential theoretical/scientific as well as practical implications. The PI has an excellent track record as well as the requisite institutional resources and support needed to complete the project.

The budget is reasonable. The potential for this project to lead to external funding is good. Full funding is recommended.

Rank	20
Proposal #	034A-24 (Biological Sciences II)
Institution	Louisiana State University and A&M College
PI	Hyun Kyung Kim
Title	Muscle-Centric Approach to Personalized Prevention of Patellar Tendinopathy: Wearable Sensors, Muscle Function Analysis, and AI Integration
Requested	Y1: \$52,576; Y2: \$52,576; Y3: \$52,576
Recommended	Y1: \$52,576; Y2: \$52,576; Y3: \$52,576

The goal of this proposal is to identify individuals at high risk of patellar tendinopathy (PT), the most common overuse injury in athletes, and to determine the specific muscles for strength training to prevent the onset of PT. This is an excellent, well-written application by a productive, early-career investigator. The approach is very novel and will involve integrating wearable sensors, ultrasound imaging, and artificial intelligence. The PI identified as the primary obstacle to achieving competitiveness the acquisition of sufficient financial resources to hire a Ph.D. student to collect preliminary data. The research is filling a gap in the field and is highly likely to be of interest to federal funding agencies. The PI has assembled a strong team of Ph.D.- and MD-level scientists with expertise in different aspects of the project. The institutional environment in the School of Kinesiology is excellent. Lab space, equipment, and personnel will be accessible to the team. While the outcomes of the research will be of significance for athletes, there is a question of broader utility for the general population. Full funding is recommended.

Rank	21
Proposal #	009A-24 (Agricultural Sciences)
Institution	Louisiana State University Agricultural Center
PI	Jeffrey Plumlee
Title	Migratory Connectivity, Site Fidelity, and Exploitation Susceptibility of Tripletail (<i>Lobotes Surinamensis</i>): An Emerging Recreational Fishery
Requested	Y1: \$62,956; Y2: \$62,956; Y3: \$46,375
Recommended	Y1: \$42,000; Y2: \$40,000; Y3: \$35,000

The project aims to address critical knowledge gaps regarding tripletail ecology, offering the potential for new discoveries and contributing to fundamental advances in the understanding of fisheries exploitability. The applicant effectively identifies barriers, and the plan to overcome them is well articulated. The PI is a new faculty member just starting a lab and these funds will be instrumental in acquiring much-needed preliminary data and hiring a graduate student. The

requests are reasonable and aligned with project goals. The proposal outlines existing institutional support. LSU A&M is a key institute for fisheries science and this work will complement that focus. The applicant has the necessary skillset to complete the project. The methods proposed are appropriate for the research objectives. The research could determine new movement pathways and spawning aspects for a fish species in the Gulf of Mexico region. This project could support future requests for both basic and applied research funding, including via S-K grants and NOAA. Due to limited funds available, partial funding of \$42,000 is recommended in year one, \$40,000 in year two, and \$35,000 in year three.

Rank	22
Proposal #	007A-24 (Agricultural Sciences)
Institution	Louisiana State University Agricultural Center
PI	Chien-Yu Huang
Title	Targeting Epigenetic Regulators on Plant Immunity to Enhance Host Defense against Crop Disease
Requested	Y1: \$53,584; Y2: \$52,850; Y3: \$50,688
Recommended	Y1: \$40,000; Y2: \$38,000; Y3: \$38,000

This project focuses on a fundamental question regarding the contributions of epigenetic regulation in fine-tuning the expression of innate immune response through the control of the expression of downstream NLR genes at the chromatin level. Barriers are identified. The proposal is well organized and outlines a technically sound research plan involving cutting-edge approaches. Clear objectives and timelines are provided. The project aims to make fundamental advances by identifying master epigenetic regulators and developing management strategies for important crop diseases. The outcomes are expected to contribute to progress in plant pathology, crop disease management, and potentially cancer research. A strong pool of collaborators has been assembled. The likelihood of the project resulting in competitive status for federal support is high, as the proposal outlines a strategic plan to obtain preliminary data, publish results, and submit proposals to NSF, USDA, NIH, and other agencies. Due to limited monies available, partial funding of \$40,000 is recommended in year one and \$38,000 annually in years two and three.

Rank	23
Proposal #	055A-24 (Biological Sciences I)
Institution	Louisiana State University and A&M College
PI	Ryoichi Teruyama
Title	Plasticity of Oxytocin Receptor Neurons during Postpartum Period
Requested	\$20,000
Recommended	\$18,500

This proposal will investigate if oxytocin receptor expression in the anteroventral periventricular nucleus alters neural activity in maternal mice and if these activities are altered in stress. Understanding how oxytocin receptors influence maternal behavior towards the pups and effects of stress on this response will provide a deeper understanding of the factors that lead to postpartum depression; in the long term, these investigations may provide insights into treatment. The use of advanced techniques, such as in vivo fiber photometry, will provide valuable quantitative data on neural activity. The proposed research will allow the PI to expand technical capabilities and develop a new research direction for their lab into a molecular investigation of sexually dimorphic behavior. Postpartum depression is currently an area of high interest for researchers and funding agencies. The timeline and resources are adequate. If successful, this project has the potential to attract federal funding in the long term. Due to limited funds available, partial funding of \$18,500 is recommended.

Rank	24
Proposal #	108A-24 (Engineering A)
Institution	University of Louisiana at Lafayette
PI	Sen Liu
Title	Energy Driven In-situ Alloying and Multiphysics Control Pathways
Requested	Y1: \$66,702; Y2: \$53,268; Y3: \$53,133
Recommended	Y1: \$51,601; Y2: \$51,601; Y3: \$51,601

The applicant seeks to develop an understanding of in-situ alloying chemistry, multiphysics, and defect formation by utilizing an external x-ray synchrotron. This is a timely topic on additive manufacturing, which is relevant to Louisiana. Specific barriers are listed and a plan to overcome them through the proposed work is provided. The work will also establish collaborations that are essential for long-term success, including using the unique synchrotron facilities at LSU A&M. It is clear the PI is an expert in the area, understanding the limitations of the field and how they will become a significant contributor. This project could impact the fundamental understanding of how alloys form. Several federal grant opportunities have been targeted. The PI is a new faculty member with a strong publication record and extensive synchrotron experience. The budget is relatively high, and the 3D scanner is not sufficiently justified or explained. Partial funding of \$51,601 per year is recommended in years one, two and three.

Rank	25
Proposal #	105A-24 (Mathematics)
Institution	University of Louisiana at Lafayette
PI	Philip Hackney
Title	Higher Structures and Applications across Mathematics
Requested	Y1: \$70,111; Y2: \$59,334; Y3: \$59,073
Recommended	Y1: \$46,500; Y2: \$46,500; Y3: \$46,500

This application seeks support for researching a variety of higher structures, including operads, higher categories, and higher Segal spaces. This topic is of interest in the field and should be attractive to targeted federal programs. The PI identifies barriers to federal competitiveness based on previously submitted proposals. A detailed plan is presented for overcoming these barriers and achieving project objectives. The PI's skillset and training are in line with the proposed research. A number of collaborations are planned with researchers who have endorsed the proposal with support letters. The PI's publication record is very impressive, both in terms of quality and productivity. The budget is appropriate for the described activities, though requests for personnel costs and travel support appear high. Partial funding of \$46,500 per year is recommended for all three years.

Rank	26
Proposal #	039A-24 (Social Sciences)
Institution	Louisiana State University and A&M College
PI	Emily Marcinowski
Title	Does Normobaric Oxygen Administered during Active Play Improve Motor Learning in Young Infants?
Requested	Y1: \$44,190; Y2: \$43,651; Y3: \$42,149
Recommended	Y1: \$44,190; Y2: \$43,651; Y3: \$42,149

This application proposes to collect pilot data to address whether normobaric oxygen treatment improves motor learning in infants. The PI has a strong background in developmental psychology and pediatric physical therapy and is well positioned to conduct the research. The proposal convincingly demonstrates the project's feasibility and its potential to enhance the PI's competitiveness for external funding. Despite concerns about the small sample size and data collection methodology, the scientific and therapeutic value of the research is clear, highlighting its cost-effectiveness and potential societal benefits. The project should result in substantially improved competitiveness for federal funding. Overall, the project holds promise for significant contributions to both the field and society. Full funding is recommended.

Rank	27
Proposal #	091A-24 (Biological Sciences I)
Institution	Tulane University
PI	Jennifer Fang
Title	Opposing Roles for Connexins in Vascular Malformations and HHT
Requested	Y1: \$58,708; Y2: \$59,118; Y3: \$58,540
Recommended	Y1: \$39,000; Y2: \$39,000; Y3: \$39,000

This proposal aims to establish how dysregulation of gap junction proteins connexins contributes to vascular malformation (VM) in Hereditary Hemorrhagic Telangiectasia (HHT) patients. The research strategy is sound. The PI is already on a path to establishing a new lab and has established key collaborations. The PI has a long-standing interest in connexins and endothelial physiology and has published extensively in the area. A lack of strong preliminary data is listed as the primary barrier, and the project will fill this need. Institutional resources are appropriate and having a mentorship team is a strength. The topic is highly relevant to federal agencies such as NIH as it will address the molecular mechanism of HHT disorder. Investigating how Alk1 regulates vascular organization can also be of interest to NSF. This project, if successful, will be competitive for federal funding. Due to limited funds available, partial annual funding of \$39,000 is recommended in all three years.

Rank	28
Proposal #	058A-24 (Mathematics)
Institution	Louisiana State University and A&M College
PI	Zhiyu Wang
Title	Analyzing Graph Properties and Community Detection via Ricci Curvature
Requested	Y1: \$43,804; Y2: \$43,804; Y3: \$43,804
Recommended	Y1: \$43,804; Y2: \$43,804; Y3: \$43,804

This proposal revolves around the concept of Ricci curvature for graphs and seeks to achieve new fundamental and applied results in graph theory. The PI has adequately identified the barriers to achieving competitiveness at the federal level. A very well balanced and motivated research plan is presented. The applicant has the professional preparation and necessary surrounding environment. There is a prominent emphasis at the federal level on networked systems and data analysis. The PI has an excellent publication record and several years of activity in this research area. Contributions as a mentor for the AMS program Mathematical Research Communities are impressive. The budget is appropriate. Full funding is recommended.

Rank	29
Proposal #	017A-24 (Physics)
Institution	Louisiana State University and A&M College
PI	Sviatoslav Baranets
Title	Design and Characterization of Narrow-Bandgap Heteroanionic Oxypnictide Semiconducting Materials for Thermoelectric Applications
Requested	Y1: \$68,669; Y2: \$59,181; Y3: \$41,659
Recommended	Y1: \$36,000; Y2: \$36,000; Y3: \$36,000

This proposal seeks support for researching semiconducting oxypnictide materials engineered explicitly for thermoelectric applications. Barriers to competitiveness are identified. Plans for overcoming the challenges faced are well articulated and all the steps already undertaken are an excellent signal of the likely success of the proposed research. The long record of the PI along with preliminary data obtained show that this group is well placed to assemble a competitive proposal for federal funding. The project has potential to lead to discoveries that will have a significant impact on the field and lead to technological advances. The PI has been proactive in identifying the risks and developing a feasible mitigation strategy. The PI has also written about the broader impacts of the proposal, which is essential for support from federal agencies. Due to limited funds available, partial annual funding of \$36,000 is recommended in all three years.

Rank	30
Proposal #	054A-24 (Engineering A)
Institution	Louisiana State University and A&M College
PI	Chao Sun
Title	Modeling Extreme Coupled Wind-Surge-Wave Impacts on Community-Level Buildings
Requested	\$20,000
Recommended	\$20,000

The PI proposes to develop an Open FOAM-based model to study wind-wave flow variations under different conditions at the inlet boundary and then use the model to study the impact of wind-surge-wave actions community-level buildings. This is a change in research direction for the PI, who is moving toward civil infrastructure rather than offshore systems. This extremely important research is relevant to storm surge loading and damage to structures on the community scale. A number of federal funding sources are identified for proposal submission. Models developed from this work could impact other areas of storm safety, such as tornados, where physics codes are not well developed. The timeline and infrastructure are appropriate considering the PI's prior experience and success in research. The funding request is ideal as it is exclusively for graduate student support. Full funding is recommended.

Rank	31
Proposal #	026A-24 (Computer and Information Sciences)
Institution	Louisiana State University and A&M College
PI	Umar Farooq
Title	A Unified Framework for Static Analysis of Multi-Language Mobile Applications
Requested	Y1: \$70,084; Y2: \$65,459; Y3: \$62,334
Recommended	Y1: \$60,000; Y2: \$60,000; Y3: \$60,000

The proposed research aims to develop a unified static analysis framework for increasing the reliability and security of mobile applications written in multiple programming languages. The proposal provides adequate detail with respect to research gaps and anticipated benefits of the proposed work. The research methods are well thought out. The project timeline appears to be realistic. If successful, this work could lead to improved robustness of mobile applications and reduced vulnerabilities, which could produce significant positive societal impacts given the prevalent use of mobile applications. It has great potential for obtaining extramural funding support from federal agencies (e.g., NSF and DoD) as well as industry (e.g., Google Research and Amazon Research). The proposal presents a convincing case for barriers to competitiveness in the areas of experimental infrastructure, student support, visibility and collaboration, and pathway toward an independent research career. The proposal also articulates well how the funding provided by RCS could help the research team overcome these barriers. The PI is well prepared to lead the proposed research, with extensive research experience in both academia and industry and an established publication record in relevant software engineering areas. Requested funds for personnel appear high. Partial funding of \$60,000 per year is recommended for all three years.

Rank	32
Proposal #	072A-24 (Engineering A)
Institution	Louisiana Tech University
PI	Lingxiao Wang
Title	Advancing Embodied AI for Enhanced Robotic Odor Source Localization
Requested	Y1: \$52,841; Y2: \$52,841; Y3: \$43,520
Recommended	Y1: \$36,000; Y2: \$36,000; Y3: \$36,000

This is a unique project using artificial intelligence to detect sources of odors in a complex matrix. A number of opportunities for federal funding exist if preliminary data can be collected. Barriers are identified and a sound technical plan is presented. The plan for each year includes objectives that are clearly defined. The relationship between experimentation and data processing is clear. The research could impact safety around chemical facilities relevant to Louisiana. The PI has the specialized experience necessary to make this successful. The project has the potential to overcome existing barriers, resulting in competitive projects for federal funding. The requested funds for

personnel, printing costs, and travel expenses appear high. Due to these concerns and limited available funds, partial funding of \$36,000 per year is recommended in all three years.

Appendix A

RCS Proposals Submitted

**Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2023-24 Review Cycle**

Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
001A-24	Dr. Damon Abdi	Earth/Environmental Sciences	Louisiana State University Agricultural Center	3 Years	Leveraging Louisiana Agricultural Residues for Use in Green Infrastructure Applications	\$45,000	\$30,000	\$15,000	\$90,000
002A-24	Dr. Aaron Ashbrook	Biological Sciences II	Louisiana State University Agricultural Center	1 Year	Evaluation of Food Safe and Pharmaceutical Amorphous Silicas for Protecting Military Personnel Against Bed Bugs [<i>Cimex lectularius</i>] and German cockroaches [<i>Blattella germanica</i>]	\$47,225	\$0	\$0	\$47,225
003A-24	Dr. Andre Bueno Gama	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	Understanding mechanisms of colonization of causal agents of red rot disease of sugarcane and establishing an effective management program for Louisiana Sugarcane Growers	\$88,250	\$55,250	\$55,250	\$198,750
004A-24	Prof. Honglin Feng	Biological Sciences I	Louisiana State University Agricultural Center	3 Years	Identification, Characterization and Development of Insecticidal MicroRNAs for Soybean Stink Bug Control	\$67,479	\$67,059	\$64,959	\$199,497
005A-24	Dr. Athanasios Gentimis	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	AI based methodologies for major crops in Louisiana	\$74,314	\$60,531	\$55,531	\$190,376
006A-24	Dr. Garrett Hopper	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	Building research capacity to restore fish habitat connectivity and improve infrastructure in Louisiana watersheds.	\$62,110	\$62,110	\$62,110	\$186,330
007A-24	Dr. Chien-Yu HUANG	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	Targeting Epigenetic Regulators on Plant Immunity to Enhance Host Defense against Crop Disease	\$53,584	\$52,850	\$50,688	\$157,122
008A-24	Dr. Erin McKinley	Agricultural Sciences	Louisiana State University Agricultural Center	1 Year	An Exploration of Medicinal Mushroom Beliefs, Uses, and Product Demand among Adult Consumers in Louisiana	\$18,750	\$0	\$0	\$18,750
009A-24	Dr. Jeffrey Plumlee	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	Migratory connectivity, site fidelity, and exploitation susceptibility of tripletail (<i>Lobotes surinamensis</i>): An emerging recreational fishery	\$62,956	\$62,956	\$46,375	\$172,287
010A-24	Dr. Imana Power	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	High-throughput transient gene silencing using small RNAs to identify pathogenicity factors of <i>Rhizopus stolonifer</i> .	\$70,000	\$70,000	\$50,000	\$190,000
011A-24	Prof. Marcelo Vedovatto	Agricultural Sciences	Louisiana State University Agricultural Center	3 Years	Improving calf performance, health and profitability through better nutrition of their dams	\$82,423	\$58,670	\$56,750	\$197,843
012A-24	Dr. James Wise	Biological Sciences I	Louisiana State University Agricultural Center	3 Years	Hexavalent Chromium Drives Human Lung Carcinogenesis Via Metabolic Changes	\$66,334	\$66,334	\$66,334	\$199,002
013A-24	Dr. Ahmed Abdalla	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	Accurate determination of orthometric height in Louisiana by integrating geodetic measurements and geophysical models	\$58,084	\$57,084	\$56,084	\$171,252
014A-24	Prof. Scott Abrahams	Social Sciences	Louisiana State University and A & M College	1 Year	Geography and Economic Opportunity: Evidence from the Orphan Trains	\$20,000	\$0	\$0	\$20,000
015A-24	Dr. Ethan Anderson	Biological Sciences II	Louisiana State University and A & M College	3 Years	Reducing addiction-like behavior via cell-type and synapse-specific targeting in the nucleus accumbens.	\$60,000	\$60,000	\$60,000	\$180,000
016A-24	Prof. Ana Balibanu	Mathematics	Louisiana State University and A & M College	3 Years	Wonderful varieties, hyperplane arrangements, and Poisson representation theory	\$62,055	\$59,055	\$56,055	\$177,165
017A-24	Dr. Sviatoslav Baranets	Physics/Astronomy	Louisiana State University and A & M College	3 Years	Design and Characterization of Narrow-Bandgap Heteroanionic Oxynictide Semiconducting Materials for Thermoelectric Applications	\$68,669	\$59,181	\$41,659	\$169,509
018A-24	Dr. Arup Bhattacharya	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Optimization of Airborne Contamination Control in Indoor Environments - Data-driven Predictive Modeling	\$79,348	\$59,840	\$52,446	\$191,634
019A-24	Dr. Qi Cai	Biological Sciences I	Louisiana State University and A & M College	3 Years	Elucidating the Role of Laminin-411 in Glioblastoma Cell Migration	\$63,334	\$63,334	\$63,334	\$190,002
020A-24	Dr. Yuanhang Chen	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	Thermodynamics and fluid flow models for CO2 and CO2-rich mixtures flow in wellbores	\$53,350	\$52,650	\$51,750	\$157,750
021A-24	Dr. Danbi Choe	Social Sciences	Louisiana State University and A & M College	1 Year	Empowering Asian American Adolescents Through Culturally Focused Social Emotional Learning	\$20,000	\$0	\$0	\$20,000
022A-24	Dr. Rebeca de Jesus Crespo	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	Modelling mosquito borne disease risk across socio-ecological gradients in the city of New Orleans, Louisiana	\$56,773	\$47,554	\$42,944	\$147,271
023A-24	Dr. Jordan Dowell	Agricultural Sciences	Louisiana State University and A & M College	3 Years	Assessing the direct and indirect effects of plant volatile organic compounds for control of <i>Botrytis cinerea</i>	\$69,075	\$66,228	\$64,396	\$199,699
024A-24	Dr. Nadejda Drenska	Mathematics	Louisiana State University and A & M College	2 Years	Semi-Supervised Learning and Machine Learning for Biomedical Applications	\$54,555	\$54,555	\$0	\$109,110
025A-24	Prof. Anthony Engler	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Robust Ion-Exchange Membranes to Enable Electrochemical Processes	\$59,135	\$58,135	\$58,135	\$175,405
026A-24	Dr. Umar Farooq	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	A Unified Framework for Static Analysis of Multi-Language Mobile Applications	\$70,084	\$65,459	\$62,334	\$197,877
027A-24	Prof. Benjamin Fehrman	Mathematics	Louisiana State University and A & M College	3 Years	Fluctuating systems, random environments, and stochastic algorithms	\$58,235	\$58,235	\$58,235	\$174,705

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						Year 1	Year 2	Year 3	Total
028A-24	Dr. Mahmoud Habibnezhad	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Forging a Cyber-enhanced Work Environment: Elevating Workers' Situational Awareness via a Vision-assisted, Self-Navigating Cyber-Physical-Human System	\$56,847	\$51,530	\$50,250	\$158,627
029A-24	Dr. Huanping Huang	Earth/Environmental Sciences	Louisiana State University and A & M College	3 Years	Developing an Empirical Model for Estimating Landfalling Hurricane Wind Speeds in a Changing Climate	\$62,066	\$55,934	\$52,301	\$170,301
030A-24	Mr. Xiaoqi Huang	Mathematics	Louisiana State University and A & M College	3 Years	Analysis of Laplace eigenfunction on compact manifolds	\$59,805	\$59,805	\$59,805	\$179,415
031A-24	Dr. Mahmood Jasim	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	Designing and Developing Multimodal Analytics Systems for Data-Driven Decision-Making	\$66,833	\$65,833	\$64,333	\$196,999
032A-24	Dr. Soo Jeong Jo	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Environmental Performance of 3D-Printed Concrete Walls in a Hot and Humid Climate	\$51,214	\$49,143	\$44,143	\$144,500
033A-24	Prof. Jangwook Jung	Biological Sciences I	Louisiana State University and A & M College	1 Year	Mechanisms of Cardiomyocyte Proliferation Induced by Laminin Globular Domain Agrin	\$19,000	\$0	\$0	\$19,000
034A-24	Prof. Hyun Kyung Kim	Biological Sciences II	Louisiana State University and A & M College	3 Years	Muscle-Centric Approach to Personalized Prevention of Patellar Tendinopathy: Wearable Sensors, Muscle Function Analysis, and AI Integration	\$52,576	\$52,576	\$52,576	\$157,728
035A-24	Dr. Yong-ha Kim	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Modelling inhaled radionuclide deposition in human respiratory systems	\$52,076	\$47,194	\$46,594	\$145,864
036A-24	Prof. Kisung Lee	Computer and Information Sciences	Louisiana State University and A & M College	1 Year	Studying effects of graph partitioning for distributed graph representation learning	\$20,000	\$0	\$0	\$20,000
037A-24	Prof. Yong Hwan Lee	Biological Sciences I	Louisiana State University and A & M College	1 Year	Suppression of cancer glycolysis by Salmonella-mediated fructose-2,6-bisphosphate regulation as a new cancer therapy	\$20,000	\$0	\$0	\$20,000
038A-24	Dr. Hai Lin	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	1 Year	Exploring Mud-Wasp Inspired 3D Soil Printing for Sustainable and Cost-Effective Earthen Building Construction	\$19,800	\$0	\$0	\$19,800
039A-24	Dr. Emily Marciniowski	Social Sciences	Louisiana State University and A & M College	2 Years	Does normobaric oxygen administered during active play improve motor learning in young infants?	\$44,190	\$43,651	\$42,149	\$129,990
040A-24	Dr. Francois Mauger	Physics/Astronomy	Louisiana State University and A & M College	3 Years	Observing ultrafast coupled electron-nucleus dynamics with XUV light	\$60,200	\$60,200	\$60,200	\$180,600
041A-24	Dr. Xiangyu Meng	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Developing Eco-Driving Algorithms for Connected and Autonomous Vehicles at Signalized Intersections	\$63,299	\$62,799	\$61,799	\$187,897
042A-24	Dr. Bijoyaa Mohapatra	Social Sciences	Louisiana State University and A & M College	2 Years	Evaluating the Impact of a Creative Storytelling Program on Linguistic and Psychosocial Outcomes in Aphasia: A Randomized Clinical Trial with Focus on Feasibility, Acceptability, and Preliminary Results	\$57,290	\$55,790	\$0	\$113,080
043A-24	Dr. Samuel Morris	Social Sciences	Louisiana State University and A & M College	3 Years	Evaluating the Relative Value and Utility of Generic versus Individualized Social Stimuli for Children with Autism	\$66,041	\$65,041	\$64,541	\$195,623
044A-24	Prof. Prosper Ngabonziza	Physics/Astronomy	Louisiana State University and A & M College	3 Years	Epitaxial Thin Films and Quantum Devices of Correlated Layered Oxides	\$70,400	\$62,550	\$60,125	\$193,075
045A-24	Dr. Zhihong Pang	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Enhancing Building Resiliency through AI-Driven Micro-Grid Management and Renewable Energy Integration	\$58,205	\$55,205	\$55,205	\$168,615
046A-24	Dr. Efthymios Papadopoulos	Biological Sciences II	Louisiana State University and A & M College	3 Years	The effects of TAURine and resistance training on indices of frailty among prefrail African American older adults. The TAURUS pilot, randomized, double-blind, placebo-controlled trial.	\$62,612	\$61,283	\$53,653	\$177,548
047A-24	Dr. Hyojung Park	Social Sciences	Louisiana State University and A & M College	1 Year	Communal Coping and Community Resilience: Understanding the Role of Communication in the Process of Coping and Adapting in the Context of Public Emergency	\$16,182	\$0	\$0	\$16,182
048A-24	Dr. Gregg Pettis	Biological Sciences I	Louisiana State University and A & M College	1 Year	A microbiome-based approach for combating toxic element contamination of sweet potato	\$17,205	\$0	\$0	\$17,205
049A-24	Dr. Bruno Rego	Computer and Information Sciences	Louisiana State University and A & M College	3 Years	A deep operator network model to enable personalized hydrogel injection therapies after heart attack	\$64,134	\$63,334	\$61,334	\$188,802
050A-24	Prof. Igor Schneider	Biological Sciences II	Louisiana State University and A & M College	3 Years	Gene regulatory landscape of vertebrate heart regeneration	\$59,584	\$54,584	\$49,584	\$163,752
051A-24	Prof. Patricia Schneider	Biological Sciences II	Louisiana State University and A & M College	3 Years	Cis-regulatory landscape controlling asymmetric gene expression in the retina of the four-eyed fish Anableps anableps	\$58,584	\$57,584	\$49,974	\$166,142
052A-24	Prof. Constantin Schrade	Physics/Astronomy	Louisiana State University and A & M College	3 Years	Quantum Material Josephson Junctions for Quantum Simulation and Computation	\$71,750	\$58,000	\$58,000	\$187,750
053A-24	Dr. Paul Soto	Social Sciences	Louisiana State University and A & M College	1 Year	Long-Term Consequences of Early Adolescent Exposure to Second-Generation Antipsychotics	\$17,189	\$0	\$0	\$17,189

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						Year 1	Year 2	Year 3	Total
054A-24	Dr. Chao Sun	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	1 Year	Modeling extreme coupled wind-surge-wave impacts on community-level buildings	\$20,000	\$0	\$0	\$20,000
055A-24	Dr. Ryoichi Teruyama	Biological Sciences I	Louisiana State University and A & M College	1 Year	Plasticity of oxytocin receptor neurons during postpartum period	\$20,000	\$0	\$0	\$20,000
056A-24	Prof. Clifton Wagner	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Synthesis of Inorganic-Functionalized Borazines as Precursors for Functionalized Hexagonal Boron Nitride	\$62,756	\$60,376	\$58,876	\$182,008
057A-24	Dr. Xingting Wang	Mathematics	Louisiana State University and A & M College	3 Years	Techniques in Noncommutative Algebras: Valuations, Indicators and Quantum Symmetries	\$44,805	\$44,805	\$44,805	\$134,415
058A-24	Dr. Zhiyu Wang	Mathematics	Louisiana State University and A & M College	3 Years	Analyzing graph properties and community detection via Ricci curvature	\$43,804	\$43,804	\$43,804	\$131,412
059A-24	Dr. Hanyu Wei	Physics/Astronomy	Louisiana State University and A & M College	3 Years	Search for New Physics with Short-baseline Neutrino Experiments at Fermilab	\$62,451	\$62,451	\$62,451	\$187,353
060A-24	Dr. Chun Yang	Social Sciences	Louisiana State University and A & M College	1 Year	Strategic Use of Multiple Emotions in Health Messages to Address Colon Cancer Disparity for African Americans in Louisiana	\$20,000	\$0	\$0	\$20,000
061A-24	Dr. Shaomian Yao	Biological Sciences I	Louisiana State University and A & M College	1 Year	Strategies for the Purification and Therapeutic Exploration of Human iPSC-Derived Extracellular Vesicles	\$20,000	\$0	\$0	\$20,000
062A-24	Dr. Mehdi Zeidouni	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana State University and A & M College	3 Years	Recovery Optimization in Underground Hydrogen Storage Projects	\$50,176	\$45,593	\$45,593	\$141,362
063A-24	Dr. Fan Zhang	Biological Sciences I	Louisiana State University and A & M College	3 Years	Unlocking the remedial potential of soil microbiome near a hazardous waste thermal treatment site	\$62,266	\$54,266	\$37,114	\$153,646
064A-24	Dr. Yanmengqian Zhou	Social Sciences	Louisiana State University and A & M College	3 Years	Identifying and Testing Communication Strategies that Promote Accurate Health Decision-Making in the Face of Conflicting Advice	\$78,275	\$74,151	\$25,348	\$177,774
065A-24	Dr. XiaoChing Li	Biological Sciences II	Louisiana State University Health Sciences Center - New Orleans	3 Years	Adapting the CRISPR gene-editing tool to study the roles of McCP2 in vocal communication in the zebra finch	\$45,400	\$45,400	\$45,400	\$136,200
066A-24	Prof. Tung-Sung Tseng	Biological Sciences II	Louisiana State University Health Sciences Center - New Orleans	3 Years	The Impact of Sugar-sweetened Beverage [SSB] and Artificially Sweetened Beverage [ASB] Consumption Combined with Heavy Alcohol Consumption on Liver Fibrosis	\$54,165	\$54,165	\$54,165	\$162,495
067A-24	Dr. Ana-Maria Dragoi	Biological Sciences I	Louisiana State University Health Sciences Center Shreveport	3 Years	Nutritional and immunological determinants of macrophages invasion by Neisseria gonorrhoeae	\$66,659	\$66,659	\$66,659	\$199,977
068A-24	Prof. Yun Chen	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana Tech University	3 Years	A novel microfluidic-based filtration system to remove PFAS for water purification	\$56,141	\$55,386	\$54,411	\$165,938
069A-24	Dr. Xiyuan Liu	Mathematics	Louisiana Tech University	3 Years	Developing Conditional Random Fields with Bayes network for Machine Learning Modeling	\$45,585	\$44,708	\$35,928	\$126,221
070A-24	Dr. Hadi Salehi	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana Tech University	3 Years	Enhancing post-disaster recovery by leveraging socioeconomic data towards sustainable and resilient communities	\$54,914	\$54,670	\$54,458	\$164,042
071A-24	Dr. Roya Solhmirzaei	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana Tech University	3 Years	Material Optimization and Structural Response Characterization of 3D-Printed Ultra High Performance Concrete	\$69,114	\$53,870	\$54,658	\$177,642
072A-24	Dr. Lingxiao Wang	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana Tech University	3 Years	Advancing Embodied AI for Enhanced Robotic Odor Source Localization	\$52,841	\$52,841	\$43,520	\$149,202
073A-24	Prof. Yang Xiao	Engineering A [Chemical, Civil, Electrical, etc.]	Louisiana Tech University	3 Years	Advancing Catalytic Activation of Alkanes over Two-Dimensional Materials	\$57,019	\$56,239	\$55,989	\$169,247
074A-24	Dr. Kevin Du Clos	Earth/Environmental Sciences	Louisiana Universities Marine Consortium	3 Years	Developing imaging technologies to characterize plankton communities in coastal Louisiana	\$49,181	\$45,061	\$44,866	\$139,108
075A-24	Dr. Qi Guo	Engineering A [Chemical, Civil, Electrical, etc.]	McNeese State University	1 Year	Improving Energy Efficiency in Chemical Engineering Plants	\$20,000	\$0	\$0	\$20,000
076A-24	Dr. Ahmet Manisali	Engineering A [Chemical, Civil, Electrical, etc.]	McNeese State University	3 Years	Algae Biomass Production in a Novel Photobioreactor to Characterize and Isolate Phospholipids for Cosmetics/Cosmeceuticals/Pharmaceuticals	\$52,800	\$51,650	\$51,200	\$155,650
077A-24	Dr. Shaikh Gohin Samad	Mathematics	McNeese State University	1 Year	Construction of reflection positive relativistic quantum mechanical model kernels for n-particle system.	\$19,973	\$0	\$0	\$19,973
078A-24	Dr. Abby Adams	Biological Sciences I	Nicholls State University	3 Years	Respiratory and immunological response of fiddler crabs and crawfish as biomarkers of environmental health in south Louisiana	\$35,854	\$32,589	\$31,589	\$100,032
079A-24	Dr. Enmin Zou	Biological Sciences I	Nicholls State University	1 Year	Transcriptomic analysis of epidermal transporters responsible for exoskeletal mineralization in the blue crab, Callinectes sapidus	\$20,000	\$0	\$0	\$20,000
080A-24	Dr. Sita Aggarwal	Biological Sciences I	Southeastern Louisiana University	3 Years	Role of Botanical[s] on Alkaline Phosphatase Activity	\$49,208	\$42,066	\$38,950	\$130,224

**Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2023-24 Review Cycle**

Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
081A-24	Dr. James Cho	Biological Sciences I	Southeastern Louisiana University	3 Years	From Bugs to Biotech: A Comprehensive Examination of Eco-Friendly Bioinspired Metal Nanoparticles Derived from Insects, Arthropods, and Microbial Biomolecules for Enhanced Antimicrobial Efficacy and Precise Anticancer Action	\$44,218	\$44,066	\$43,949	\$132,233
082A-24	Dr. Corie Hebert	Social Sciences	Southeastern Louisiana University	1 Year	An Evaluation of the Trauma Informed Trust Based Relational Intervention [TBRI] Training for Foster Parents in Louisiana	\$19,986	\$0	\$0	\$19,986
083A-24	Dr. Pradip Panta	Biological Sciences I	Southeastern Louisiana University	3 Years	Studying the role of a DedA superfamily member in intrinsic resistance against a last-resort antibiotic	\$55,408	\$55,280	\$55,188	\$165,876
084A-24	Dr. Kazim Sekeroglu	Computer and Information Sciences	Southeastern Louisiana University	3 Years	Unveiling Mindscapes: EEG-Based Brain-Computer Interface Framework for Generating Visual and Imagined Objects	\$56,252	\$48,446	\$49,689	\$154,387
085A-24	Dr. SANJAY BATRA	Biological Sciences I	Southern University and A&M College - Baton Rouge	3 Years	Shifting Roles of Ribosomal Proteins in Stressed Lung Epithelial Cells: Exploring Resilience through Melatonin	\$48,116	\$45,116	\$41,616	\$134,848
086A-24	Dr. Yasser Ismail	Engineering A [Chemical, Civil, Electrical, etc.]	Southern University and A&M College - Baton Rouge	3 Years	Efficient Internet of Video Surveillance Systems [IoVSS] for Smart Cities	\$51,797	\$48,117	\$48,117	\$148,031
087A-24	Prof. DONGKEUN LEE	Engineering A [Chemical, Civil, Electrical, etc.]	Southern University and A&M College - Baton Rouge	3 Years	Development of More Reliable, Durable, and Sustainable Buckling Restrained Braces [BRBs] Using Corrosion-resistant Materials and Pozzolans	\$58,466	\$58,450	\$58,381	\$175,297
088A-24	Dr. Congyuan Zeng Zeng	Engineering A [Chemical, Civil, Electrical, etc.]	Southern University and A&M College - Baton Rouge	3 Years	Engineering Durable Dissimilar Metal Joints: A Solid-State Fabrication Approach Using Additive Friction Stir Deposition	\$50,189	\$50,189	\$50,189	\$150,567
089A-24	Prof. Henry Ashbaugh	Engineering A [Chemical, Civil, Electrical, etc.]	Tulane University	1 Year	Accounting for hydration contributions to surface reactions	\$20,000	\$0	\$0	\$20,000
090A-24	Dr. Benjamin Deen	Biological Sciences II	Tulane University	3 Years	Probing the functional organization of the anterior temporal lobe with precision fMRI	\$55,181	\$53,673	\$54,142	\$162,996
091A-24	Dr. Jennifer Fang	Biological Sciences I	Tulane University	3 Years	Opposing Roles for Connexins in Vascular Malformations and HHT	\$58,708	\$59,118	\$58,540	\$176,366
092A-24	Prof. Shuaihua Gao	Biological Sciences I	Tulane University	3 Years	Protein Evolution and Genome Mining of Fluorinases for Clinical Applications of PET Scan	\$66,872	\$66,594	\$66,366	\$199,832
093A-24	Dr. Saad Hassan	Computer and Information Sciences	Tulane University	2 Years	Enhancing Expressive and Receptive American Sign Language Learning using AI-Powered Tools	\$48,022	\$50,330	\$0	\$98,352
094A-24	Dr. Daniel Howsmon	Engineering A [Chemical, Civil, Electrical, etc.]	Tulane University	3 Years	Bistability between fibrotic and calcification signaling in calcific aortic valve disease	\$67,176	\$66,652	\$65,171	\$198,999
095A-24	Dr. Shaokai Jian	Physics/Astronomy	Tulane University	3 Years	Critical physics at the boundary	\$53,805	\$53,805	\$53,805	\$161,415
096A-24	Dr. Andrew Leber	Social Sciences	Tulane University	1 Year	U.S. Public Attitudes & Policymaking Towards Middle East Oil Producers	\$18,133	\$0	\$0	\$18,133
097A-24	Prof. Daniel Straus	Physics/Astronomy	Tulane University	3 Years	Enantiomorphic Control of Chiral Materials	\$52,362	\$52,362	\$52,361	\$157,085
098A-24	Dr. Qiuyang Zhang	Biological Sciences II	Tulane University Health Sciences Center	1 Year	Functional Role of USP26 in Castration-Resistant Prostate Cancer [CRPC]	\$20,000	\$0	\$0	\$20,000
099A-24	Dr. Andrei Chistoserdov	Biological Sciences I	University of Louisiana at Lafayette	1 Year	Co-cultivation of oleaginous yeast and bacteria for biodiesel production	\$20,000	\$0	\$0	\$20,000
100A-24	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
101A-24	Dr. Tanvir Faisal	Biological Sciences II	University of Louisiana at Lafayette	3 Years	Targeting dysregulated metalloproteinases mediated cartilage degradation in designing inhibitors to prevent progressive cartilage degeneration in osteoarthritis	\$56,524	\$55,970	\$54,118	\$166,612
102A-24	Prof. Yin Feng	Earth/Environmental Sciences	University of Louisiana at Lafayette	1 Year	Exploration of a Self-Supervised Learning Framework for Identifying Groundwater Contaminant Sources	\$18,750	\$0	\$0	\$18,750
103A-24	Dr. Farzad Ferdowsi	Engineering A [Chemical, Civil, Electrical, etc.]	University of Louisiana at Lafayette	3 Years	Empowering Energy Resilience: A Path to Sustainable Power in a Changing Climate	\$54,830	\$51,409	\$49,474	\$155,713
104A-24	Dr. MOHAMMAD MEHDI GHIAI	Social Sciences	University of Louisiana at Lafayette	1 Year	A comprehensive approach for post-occupancy evaluation for enhancing indoor environmental quality and Users comfort	\$20,000	\$0	\$0	\$20,000
105A-24	Dr. Philip Hackney	Mathematics	University of Louisiana at Lafayette	3 Years	Higher structures and applications across mathematics	\$70,111	\$59,334	\$59,073	\$188,518
106A-24	Dr. Mark LaCour	Social Sciences	University of Louisiana at Lafayette	1 Year	Addressing vaccine hesitancy for at-risk groups with computational modeling	\$10,198	\$0	\$0	\$10,198
107A-24	Dr. Mo Li	Biological Sciences II	University of Louisiana at Lafayette	3 Years	T cell receptor diversity analysis for immunological research	\$46,300	\$43,859	\$43,718	\$133,877
108A-24	Prof. Sen Liu	Engineering A [Chemical, Civil, Electrical, etc.]	University of Louisiana at Lafayette	3 Years	Energy Driven In-situ Alloying and Multiphysics Control Pathways	\$66,702	\$53,268	\$53,133	\$173,103

**Proposals Submitted to the Research and Development Program - Research Competitiveness Subprogram (RCS)
FY 2023-24 Review Cycle**

Proposal #	PI Name	Category	Institution	Duration	Project Title	Amount Requested			
						Year 1	Year 2	Year 3	Total
109A-24	Dr. Mirna Marinic	Biological Sciences I	University of Louisiana at Lafayette	3 Years	Parsing Developmental and Evolutionary Differences of Eutherian Endometrial Tissue	\$46,144	\$41,218	\$30,000	\$117,362
110A-24	Dr. Yeonjae Park	Social Sciences	University of Louisiana at Lafayette	1 Year	Detrimental Consequences of Ethnic/Racial Hate Crimes on Psychological and Physical Health: Examining the Buffering Impacts of Social Capital among Victims	\$12,617	\$0	\$0	\$12,617
111A-24	Dr. Songyang Zhang	Computer and Information Sciences	University of Louisiana at Lafayette	3 Years	Intelligent Spectrum Management and Network Optimization for Hybrid Emergency Communication Systems	\$64,872	\$54,143	\$53,208	\$172,223
112A-24	Dr. Ross Couvillon	Biological Sciences II	University of Louisiana at Monroe	1 Year	Investigation of potential selection and fitness implications of variable pattern traits in copperheads (<i>Agkistrodon contortrix</i>)	\$18,750	\$0	\$0	\$18,750
113A-24	Dr. Blake Farman	Mathematics	University of Louisiana at Monroe	3 Years	Fourier-Mukai Partners in Noncommutative Algebraic Geometry	\$41,471	\$41,471	\$30,976	\$113,918
114A-24	Dr. Hamed Ghahremani	Social Sciences	University of New Orleans	1 Year	The Influence of Religious Attire on Job Interview Outcomes	\$12,705	\$0	\$0	\$12,705
115A-24	Dr. Debra Karhson	Biological Sciences II	University of New Orleans	3 Years	Neurobiological Mechanisms of Social Synchrony in Autism Spectrum Disorder	\$61,745	\$54,161	\$45,559	\$161,465
116A-24	Dr. Kendal Leftwich	Physics/Astronomy	University of New Orleans	3 Years	Engaging High and Middle School students in Gulf of Mexico Ecosystem Research	\$103,352	\$93,602	\$99,208	\$296,162
117A-24	Dr. Xueyan Liu	Mathematics	University of New Orleans	3 Years	Study of local indicators in spatial point patterns	\$51,049	\$51,049	\$51,049	\$153,147
118A-24	Dr. Abdullah Al Redwan Newaz	Computer and Information Sciences	University of New Orleans	3 Years	Constrained Deep Reinforcement Learning with Self-Attention for Multi-Robot Information Gathering under Partial Observability	\$63,376	\$63,070	\$60,893	\$187,339
119A-24	Dr. Seyyed Navid Salehy	Mathematics	University of New Orleans	3 Years	Discrete and continuous financial models using random walks over point processes	\$48,205	\$48,205	\$48,205	\$144,615
120A-24	Dr. Michelle Wade	Social Sciences	University of New Orleans	1 Year	Navigating disclosure of Nontraditional Family Structure: A phenomenological study	\$18,841	\$0	\$0	\$18,841

Total Number of Proposals Submitted	120
Total Funds Requested for First Year	\$5,862,824
Total Funds Requested for Second Year	\$4,932,813
Total Funds Requested for Third Year	\$4,502,847
Total Funds Requested	\$15,298,484

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

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: