REQUEST FOR PROPOSALS (RFP)

Louisiana Coastal and Marine Challenges and Solutions for Early Career Faculty at LUMCON institutions

Proposal Deadline: September 20, 2025

Proposal Amount: One award of up to $150,000 for scientific research that adds to the body of knowledge related to identify and explore challenges faced in coastal Louisiana ecosystems and to implement and test science-based solutions to these challenges. The laboratories of three additional finalist PI's will receive $15,000 to further the efforts of their lab.

Proposal Candidates*:* Open to all early career (pre-tenure Assistant Professors) PhD level faculty at a Louisiana institution of higher education that is part of the LUMCON consortium.

Funder: The Joe W. & Dorothy Dorsett Brown Foundation (Foundation) is a private foundation based out of Metairie, Louisiana. The Foundation has proudly supported basic science research programs since its inception and enjoys longstanding relationships with some of the top scientific institutions in the United States. The Foundation proudly works to answer life's questions and relieve human suffering.

Request for Proposals (RFP): The Brown Foundation's home state of Louisiana is home to the outlet of the Mississippi River delta that drains 1.8 million square miles (41% of the continental US) from 31 US states and 2 Canadian provinces. The fertile delta includes over 30,000km2 of wetlands accounting for 37% of the estuarine wetlands in the US and some of the most productive and diverse estuarine and habitats in the world including the largest commercial fishery in the continental US. The Louisiana coast is home to many unique people and cultures but is also among the most dynamic and threatened coastal systems in the US. The region experiences some of the fastest rates of coastal land loss in the world and is faced with a multitude of interlinked stressors including high rates of relative sea level rise, rising temperatures, eutrophication, channelization of water and sediments, pollutants, high frequency of oil spills, increased flood risks, and increased frequency and intensity of hurricanes and

tropical storms. These complicated and important coastal challenges have led to Louisiana developing four editions of the Comprehensive Master Plan for a Sustainable Coast.

The Louisiana Universities Marine Consortium (LUMCON), a program of the Louisiana Board of Regents, is a statewide academic endeavor to focus and strengthen the effectiveness of foundational marine science needed to address the environmental and socioeconomic challenges facing Louisiana and the nation. LUMCON's mission is to promote, facilitate and conduct research and education collaborations among Louisiana's universities in marine and coastal sciences relevant to the sustainability of coastal and marine environments of the US Gulf coast. LUMCON provides unparalleled opportunities in marine science and education to the research community and public alike. Anchored by a first-rate marine laboratory, the DeFelice Marine Center, LUMCON is embedded in Louisiana's dynamic wetland environment and conveniently located on a gateway to the open waters of the Gulf. From this facility, LUMCON operates a world-class fleet of research vessels unmatched in the Gulf region. In 2023, LUMCON expanded its programs through the opening of a maritime research and outreach facility (Blue Works) as the first step of its growing collaboration on the Maritime Campus in Houma. These campuses are home to a diverse faculty of coastal and marine researchers and education and outreach staff that support and carry out the mission.

LUMCON is the hub and facilitator of a consortial group that includes more than 40 partners at every educational level, from technical to doctoral studies (including members of the Louisiana State University System, University of Louisiana System, Southern University System, Louisiana Community and Technical College System, and Louisiana Association of Independent Colleges and Universities). LUMCON connects Louisiana universities and stakeholders by facilitating the creation of stronger partnerships between members of the academic research, industry, and public communities to explore opportunities, combine expertise, and build lasting collaborations to find solutions that address the sustainability of coastal and marine environments in the US Gulf coast region and beyond. LUMCON enriches by giving back to the community through education and outreach initiatives. LUMCON transforms by impacting science and conservation in meaningful and profound ways. Collectively these effects supports LUMCON's vision of "Our coasts and oceans restored and maintained through innovation, collaboration, and community action."

LUMCON's facilities are located on the upper end of Terrebonne Bay and its proximity to the Mississippi River and Atchafalaya River deltas, extensive estuaries and coastal wetlands, and coastal waters to the deep-water Gulf makes it an ideal venue for field and experimental based coastal and marine science. An emerging delta (Atchafalaya) and a degrading delta (Mississippi), combined with complex coastal processes (coastal erosion and wetland degradation), and continued nutrient inputs into the coastal zone provide diverse opportunities and challenges for both pure and applied research that have implications for coastal restoration, and flood control, and the vast living resources (oysters, shrimp, crabs, and fin fisheries) in the area. Being located at ground zero for climate and coastal makes LUMCON a living laboratory for studying the challenges faced by coastal systems throughout the US and world and testing solutions to these critical problems.

This Request for Proposals (RFP) seeks to identify and explore challenges faced in coastal Louisiana ecosystems and to implement and test science-based solutions to these challenges.

The primary objective of this RFP is to sponsor research that will advance collective knowledge about science-based approaches to Louisiana's coastal challenges. The secondary objective is to promote increased collaboration amongst consortium researchers. The tertiary objective is to to facilitate the advancement of early career researchers to enhance competitiveness for future funding opportunities.

Focus areas may include these or other topics:

- **Increased knowledge and understanding** of the susceptibility of key species, communities, and/or habitats to specific climate / coastal changes and threats.
- **Advances in science, technology, and data integration** that improve early detection, consequence assessment, rapid response, and improved outcomes from climate and coastal challenges and threats.
- **Climate mitigation strategies** that ensure that communities can coexist with the impacts of climate change.
- **Development or refinement of coastal restoration models** to facilitate the use of optimized restoration practices in the context of a changing climate.
- **Research and identify innovative scientific methods and practices** aimed at mitigating the risk of climate change, while simultaneously enhancing benefits such as carbon sequestration, ecological resilience, fisheries productivity and sustainability, nutrient and pollutant assimilation and removal, and socio-economic advantages.
- Research and recommend **Nature-based Solutions (NbS)** for coastal restoration and climate change mitigation. NbS are characterized by their alignment with nature and ability to offer cost-effective solutions that deliver environmental, social, and economic benefits. These solutions should empower decision-makers and policymakers to effectively address climate and coastal change challenges, while prioritizing biodiversity conservation and ensuring the sustained provision of ecosystem services.

The goal of this research is to provide evidence-based insights, actionable recommendations, and scalable solutions that support maintenance and restoration approaches to the climate and coastal challenges facing coastal Louisiana and advancing the goals of sustainable ecosystems and climate resilience.

Proposal Review Process and Timeline: Final, institutionally approved proposals are due to LUMCON by September 20, 2025. All applications will be initially screened by a committee of LUMCON faculty and the Brown Foundation board of trustees. Four finalists will be selected to meet with the selection committee to present their proposed projects by early to mid-October 2025. Presentations will be made by early November with funding decision being made by early December 2025. Project start dates are anticipated to be prior to the end of 2025.

Judging Criteria: All proposals will be reviewed by a committee of LUMCON faculty with the top selections also being reviewed by the trustees of the Brown Foundation, and, possibly, external scientific advisors. Judges will look for five factors in the selection process: (1) significance and potential impact; (2) degree of innovation; (3) scientific merit; (4) feasibility; (5) alignment with LUMCON mission, facilities, resources and potential for future collaborations.

Proposal Outline: We have no strict outline for proposals, though we recommend applications be no more than ten (10) pages long, single-spaced, with one-inch margins all around and 12-point font. A small number of additional attachments, such as publications or brief (2 page) C.V., are welcome. That said, there are some basics that should be included in any proposal; those basics are:

A) **Objectives:** Summarize the key items to be accomplished for your project to be a success.

B) **Research Plan**: Describe how the objectives will be achieved through a plan. This should include a statement on your research approach and literature review.

C) **Deliverables:** What sort of deliverables are you anticipating to generate.

D) **Project Schedule:** In an ideal world, we'd like to have a final report in twenty-four months from initial funding, but identify whatever time period you need for this work. Provide your proposed project timeline.

E) **Budget:** Include an itemized budget with major expense categories. The Foundation will allow 10% of the project award to be set aside for institutional overhead. We anticipate providing one award of up to $150,000 to a selected proposal. Additional $15,000 awards be made for use of those applicant laboratories invited to present their proposal to the Board of Trustees (three finalists not selected for the full award).

F) **Equipment and Facilities**: What sort of equipment and facilities do you need and will your home institution and/or LUMCON be able to grant you access to same.

G) **Research Team:** No one works entirely alone in 2025, identify who all may be sharing some of your research burden.

H) **Alignment with LUMCON mission:** Please include a separate 1-page statement (not included within 10 pages) explaining how the proposed work aligns with LUMCON's mission and will involve collaborating with LUMCON faculty and/or using its facilities and resources.

Proposal Delivery Instructions: For submission, please submit your completed proposal as a single PDF to broberts@lumcon.edu and kcarpenter@lumcon.edu by September 20, 2025 by 11:59 pm. The subject line should read "Brown Foundation-LUMCON proposal_Institution name_Project PI Last Name" so we can be sure to capture all submissions. The compiled applications will be shared with the LUMCON faculty evaluation committee. The top applications will then be forwarded to the Brown Foundation for selection of the 4 finalists invited to present their proposal ideas.

Please contact Dr. Brian Roberts, LUMCON Executive Director and Chief Scientist, broberts@lumcon.edu if you have questions about the application, or would like to discuss your proposal before submission.

Please do not contact the Brown Foundation directly.