



GULF OF MEXICO RESEARCH INITIATIVE
RESEARCH BOARD

Gulf of Mexico Research Initiative

Request for Proposals:

Selection of Research Consortia

25 April 2011

Gulf of Mexico Research Initiative

SYNOPSIS OF GULF OF MEXICO RESEARCH INITIATIVE

On 24 May 2010, BP committed \$500 million over a 10-year period to create a broad, independent research program to be conducted at research institutions primarily in the US Gulf Coast States. The program will be known as the Gulf of Mexico Research Initiative (GRI).¹ On 15 June 2010, BP announced the names of the scientific experts who would form GRI's independent Research Board.² BP, in consultation with the White House³ and the Governors of the five Gulf Coastal States,⁴ later expanded the GRI Research Board to 20 members by adding additional scientific expertise. The Research Board is responsible for preparing this and subsequent requests for proposals (RFPs), enabling an open and transparent peer-review process, selecting proposals for funding, and reviewing annual progress for continuation funding. This RFP, designated RFP-I, is devoted to the selection of Research Consortia for GRI Years 2–4 (1 June 2011 – 31 May 2014).

On March 14, 2011, BP and the Gulf of Mexico Alliance (the Alliance is a non-profit entity formed by the Governors of the five Gulf Coastal States) entered into the GRI Master Research Agreement (GRI MRA)⁵. The GRI MRA creates the structure for the GRI, the selection and distribution of grants from the GRI, as well as the funding, conduct, and oversight of research in furtherance of the purposes of the GRI. Any Research Consortium, research institution, or co-investigator that receives funding, directly or indirectly, in whole or in part, under the GRI is subject to and must comply with the terms and conditions of the GRI MRA.

The objectives of the GRI are to investigate the impacts of the oil, dispersed oil, and dispersant on the ecosystems of the Gulf of Mexico and affected Gulf Coastal States in a broad context of improving fundamental understanding of the dynamics of such events, the associated environmental stresses, and the public health implications. The GRI will also develop improved spill mitigation, oil and gas detection, characterization, and remediation technologies. The ultimate goal of the GRI will be to improve society's ability to understand and respond to the impacts of petroleum pollution and related stressors of the marine and coastal ecosystems, with an emphasis on conditions in the Gulf of Mexico. Knowledge accrued will be applied to restoration and to improvement of the long-term environmental health of the Gulf of Mexico.

The GRI is an independent scientific research program and is separate from the Natural Resources Damages Assessment process, and BP agrees that the participation of the Alliance in this Agreement shall not result in a credit against or defense to any claims for natural resource damages or assessment costs.⁶

In general, the Research Consortia shall consist of Research Institutions in the Gulf Coast States, provided that Research Institutions outside of the Gulf Coast States may be members of or participate in partnerships with such Research Consortia, to the extent required to ensure the delivery of high-quality scientific studies in fulfillment of the objectives and ultimate goal of the GRI.

¹ <http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7062370>

² <http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7062936>

³ <http://www.whitehouse.gov/the-press-office/fact-sheet-claims-and-escrow>

⁴ <http://news.tamhsc.edu/2011/01/11/sumaya-appointed-to-gulf-oil-spill-board>

⁵ http://gulfofmexicoalliance.org/pdfs/Gulf_of_Mexico_Research_Initiative_Master.pdf

⁶ http://gulfofmexicoalliance.org/pdfs/Gulf_of_Mexico_Research_Initiative_Master.pdf

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BP provided GRI Year 1 (1 June 2010 – 31 May 2011) funds to Gulf Coast State institutions for rapid-response studies in the immediate aftermath of the Deepwater Horizon (DWH) oil spill. Pursuant to this GRI, the remaining funds to conduct these studies are to be distributed to academic and research institutions (“Research Institutions”) primarily in Alabama, Florida, Louisiana, Mississippi, and Texas (the “Gulf Coast States”), which have formed or may form appropriate partnerships with Research Institutions based outside of the Gulf Coast States.

The purpose of RFP-I is to select the research activities for GRI Years 2–4 (1 June 2011– 31 May 2014) involving Research Consortia. For this solicitation, a Research Consortium is defined as having four or more institutions. The second RFP (RFP-II) will focus on activities involving less money and less internal management than a Research Consortium; RFP-II will be issued at a later date. RFP-II will request proposals from individual or collaborative efforts involving a principal investigator (PI) and co-principal investigators (co-PIs) from up to three additional institutions and will be focused on the same research themes described in RFP-I. RFP-II will fund activities for GRI Years 2–4.

The annual funding level for all GRI activities is expected to be \$50 million per year. The total funds available for distribution to Research Consortia through RFP-I will be a minimum of \$37.5 million per year. Four to eight Research Consortia will be selected, and funding for each is estimated to be between \$1 million (minimum) and \$7.5 million (maximum) per year. The total funds available for distribution through RFP-II will be up to a maximum of \$7.5 million per year; and funding for each is estimated to be between \$100,000 (minimum) and \$1 million (maximum) per year.

The GRI emphasizes interdisciplinary science and technology involving experts in physical, chemical, geological, and biological oceanography; marine biology; coastal and reef ecosystems, fisheries and wildlife ecology; public health; and associated development of physical, chemical, and biological instrumentation, advanced modelling, and informatics.

All activities selected for GRI funding will combine state-of-the-art research with deep scientific knowledge of the ecosystems of the Gulf of Mexico to create fundamental advances in understanding the interactions that occurred and continue to occur among the marine and coastal ecosystems, oil, and oil dispersants produced by the catastrophic loss of the DWH oil drilling platform. The success of the GRI depends on a combination of regional knowledge with regional, national, and international research innovation.

The deadline to submit a Letter of Intent (LOI) is May 9, 2011 at 9:00 p.m. EDT. No proposal will be accepted without an LOI.

The deadline to submit a proposal is July 11, 2011 at 9:00 p.m. EDT.

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List of Acronyms

| | |
|-------|-------------------------------------------------|
| AU | Administrative Unit |
| co-PI | co-Principal Investigator |
| DWH | Deepwater Horizon |
| EPA | Environmental Protection Agency |
| GRI | Gulf of Mexico Research Initiative |
| IP | Intellectual Property |
| PI | Principal Investigator |
| LOI | Letter of Intent |
| MRA | Master Research Agreement |
| NERF | Non-Exclusive, Royalty-Free |
| NOAA | National Oceanic and Atmospheric Administration |
| NSF | National Science Foundation |
| RFP | Request for Proposals |
| US | United States |

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Section I: Background and Description

Context for the Gulf of Mexico Research Initiative⁷

On 20 April 2010, the DWH drilling rig operating approximately 50 miles (80 km) off of the coast of Louisiana experienced a catastrophic failure that resulted in the release of petroleum (oil and gas) and subsequent explosion and fire, the ultimate sinking of the rig, and a discharge of gas and light sweet crude oil from an ocean depth of nominally 5000 feet (1525 m).

The DWH spill was likely the largest in US history. The large oil and gas volumes released during the spill are part of a series of petroleum-related impacts suffered by the Gulf of Mexico, including the IXTOC I spill in 1979, the large-scale oil spillage during Hurricanes Katrina and Rita, and the chronic annual releases due to ship activity, industry activity, and human use.

The DWH spill resulted in petroleum and dispersants entering the Gulf of Mexico at varied concentration levels vertically and laterally, with a yet-to-be-determined impact on the ecosystems. Characterizing the distribution, composition, and ecosystem interactions of the petroleum and its constituents and dispersants is essential to understanding the long-term consequences of this and other petroleum releases in the context of the other environmental stresses facing the Gulf of Mexico. Understanding the relevant geophysical/chemical/biological processes is essential to predicting the rate and nature of ecosystem recovery and the types of intervention needed to speed that recovery. The knowledge gained from study of the aftermath of the DWH spill will also serve more broadly to address society's need to maintain healthy marine and coastal ecosystems in the face of the pressures of worldwide economic growth and transition to sustainable development.

The ocean science and public health research communities in general, and researchers in the affected Gulf States in particular, are keenly interested in undertaking a comprehensive research program to assess the impact of the spill—and, more broadly, the impact of petroleum releases to the ocean in general—on the integrated marine and coastal ecosystems, including coastal, open ocean, and deep ocean ecosystems and public health concerns associated with petroleum releases. In addition, there is a clear need for research and development into improved technologies for rapid response and mitigation of petroleum releases and their impacts, including detection and characterization of petroleum (and its constituents) and response and remediation approaches.

⁷ The GRI Master Research Agreement creates the structure for the GRI, the selection and distribution of grants from the GRI, as well as the funding, conduct, and oversight of research in furtherance of the purposes of the GRI. Any Research Consortium, research institution, or co-investigator that receives funding, directly or indirectly, in whole or in part, under the GRI is subject to and must comply with the terms of the GRI MRA. Any Research Consortium selected for funding through this RFP or subsequent RFPs must enter into a grant agreement, subject to the terms set forth in the GRI MRA. To the extent that this or subsequent RFPs are inconsistent with the GRI MRA, the GRI MRA shall apply and take precedence over any inconsistent terms contained in such RFPs. The GRI MRA is available at http://gulfofmexicoalliance.org/pdfs/Gulf_of_Mexico_Research_Initiative_Master.pdf.

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The objectives of the GRI are to investigate the impacts of the oil, dispersed oil, and dispersant on the ecosystems of the Gulf of Mexico and affected coastal States in a broad context of improving fundamental understanding of the dynamics of such events and the associated environmental stresses and public health implications. The GRI will also fund research into improved spill mitigation, oil and gas detection, and characterization and remediation technologies. The ultimate goal of the GRI is to improve society's ability to understand, respond to, and mitigate the impacts of petroleum pollution and related stressors of the marine and coastal ecosystems, with an emphasis on conditions found in the Gulf of Mexico. Knowledge accrued will be applied to restoration and to improvement of the long-term environmental health of the Gulf of Mexico.

In general, the Research Consortia shall consist of Research Institutions in the Gulf Coast States, provided that Research Institutions outside of the Gulf Coast States may be members of or participate in partnerships with such Research Consortia, to the extent required to ensure the delivery of high-quality scientific studies in fulfillment of the objectives and ultimate goal of the GRI.

The GRI RFP-I requires interdisciplinary efforts involving experts in physical, chemical, geological, and biological oceanography; marine biology; coastal and reef ecosystems, fisheries and wildlife ecology; public health; and associated development of physical, chemical, and biological instrumentation, advanced modelling, and informatics. Research will be carried out under the direction and coordination of a number of Research Consortia; each Consortium will involve researchers drawn from four or more institutions. The programs selected for funding will combine state-of-the-art research approaches with deep scientific knowledge of the Gulf of Mexico in order to generate fundamental advances in understanding the interactions that occurred and continue to occur among the marine ecosystem, oil, and oil dispersants produced by the catastrophic loss of the DWH oil drilling platform. The success of the research program depends on a combination of regional knowledge with regional, national, and international research innovation.

In May 2010, BP committed \$500 million over a 10-year period (1 June 2010 – 31 May 2020) to create a broad, independent research program, the GRI. Annual funding for all GRI activities is estimated to be \$50 million per year. The total funds available for distribution to Research Consortia through RFP-I will be a minimum of \$37.5 million per year. Four to eight Research Consortia will be selected, and funding for each is estimated to be between \$1 million (minimum) and \$7.5 million (maximum) per year. A separate RFP, RFP-II, will be issued at a later date and will request proposals from individual or collaborative efforts involving a PI and co-PIs from up to three additional institutions. RFP-II will focus on the same research themes as described in RFP-I. The total funds available for distribution through RFP-II will be up to a maximum of \$7.5 million per year; the estimated grant per proposal is \$100,000 (minimum) to \$1 million (maximum) per year.

BP provided GRI Year 1 (1 June 2010 – 31 May 2011) funds to Gulf Coast State institutions for rapid-response studies in the immediate aftermath of the DWH oil spill.⁸ The purpose of RFP-I is to select the Research Consortia activities for GRI Years 2–4 (1 June 2011 – 31 May 2014).

⁸ <http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7065262>

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The Research Consortia will be chosen through a competitive peer review of the proposals submitted in response to this RFP. The peer-review process, selection of funded Research Consortia, and continuation annual funding will be carried out under the direction of the GRI Research Board, subject to the terms of the GRI MRA. The GRI Research Board⁹ has 20 members, 10 appointed by BP and 2 recommended by the Governor of each of the five Gulf Coast States and appointed by the Gulf of Mexico Alliance.

Intellectual Themes of the GRI

Since the DWH spill in April 2010, the oceanographic and environmental communities have strongly advocated the importance of research in the Gulf of Mexico and the affected Gulf States for characterization of the event, elucidation of the processes affecting the oil/dispersant system, and assessment of the long-term impact. Numerous discussions and three important meetings open to public participation were held to define the GRI intellectual themes.

The first meeting¹⁰ was convened by the White House Office of Science and Technology Policy on 19 May 2010 in Washington, DC and was hosted by the US Environmental Protection Agency (EPA). The meeting included approximately 40 leaders from major ocean research institutions, with strong representation from Gulf Coast States.

The second meeting¹¹ was held on 3 June 2010 at Louisiana State University in Baton Rouge, LA and was co-sponsored by the National Oceanic and Atmospheric Administration (NOAA) and the Consortium for Ocean Leadership. This meeting included about 200 researchers representing the major oceanographic institutions and academic departments in the United States, including representatives from all of the affected Gulf States. The meeting was convened to address both short-term response actions and long-term monitoring and understanding of environmental impacts.

The third meeting¹² was held 22–23 June 2010 at New Orleans, LA and was sponsored by the Institute of Medicine of the National Academies of Science. Over 300 participants attended the workshop, including representatives from all of the affected Gulf Coast States. The meeting was convened to address public health impacts and responses to them in the short- and long-term, including monitoring and surveillance of potentially affected populations.

The output from these meetings is the basis for the major research themes to be addressed in RFP-I and RFP-II. These are:

1. Physical distribution, dispersion, and dilution of petroleum (oil and gas), its constituents, and associated contaminants (e.g., dispersants) under the action of physical oceanographic processes, air–sea interactions, and tropical storms.
2. Chemical evolution and biological degradation of the petroleum/dispersant systems and subsequent interaction with coastal, open-ocean, and deep-water ecosystems.

⁹ <http://griresearchboard.org/about/board-membership.html>

¹⁰ A summary of the recommendations from this meeting is included in the summary of Meeting 2 in Footnote 8.

¹¹ <http://www.oceanleadership.org/ocean-policy-legislation/gulf-oil-spill-scientific-symposium/>

¹² http://www.nap.edu/catalog.php?record_id=12949

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3. Environmental effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms; and the science of ecosystem recovery.
4. Technology developments for improved response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases.
5. Fundamental scientific research integrating results from the other four themes in the context of public health.

Each Research Consortium proposal is expected to develop and enunciate a clear plan to address any one of these themes or a cross-disciplinary program of work involving a grouping of some of these topics. The plan should clearly describe how the proposed research would serve to accomplish the long-term goals of the GRI.

Section II: Structure of the GRI

Purpose and Constitution of Consortia

Section I of this document describes the rationale for the establishment of the GRI. The ultimate goal of the GRI is to improve society's ability to understand and to mitigate the impacts of hydrocarbon pollution and related stressors of the marine and coastal ecosystems, with a focus on the Gulf of Mexico. We envision that in the later stages of the research, the knowledge accrued will be applied for restoration and for improvement of the environmental health of the Gulf of Mexico.

Each Research Consortium will carry out an innovative program of research that combines state-of-the-art research techniques with deep technical knowledge of the Gulf of Mexico. Each Consortium will comprise groups of co-PIs recruited from four or more institutions and chosen to provide complementary research capabilities. To ensure the broadest consideration of potential contributors, the identity and research foci of each proposed Consortium, as provided in a LOI, will be posted at <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/letters-of-intent/> in order to produce robust partnerships and collaborations. The proposed participants in a Consortium may be updated prior to submission of the proposal as noted in the Instructions for LOIs and for proposals in a later section of this RFP.

Governance

Each grant will be awarded for a period not to exceed three years, and annual continuation of funding will be subject to acceptable progress as judged by the Research Board as well as satisfaction of such additional requirements as are set forth in the GRI MRA. The Research Board will hold the right to recommend funding for only selected parts of any given research proposal, to require modifications to the proposed work, personnel, and budget of any proposal, and to merge, transfer, or otherwise modify the sub-projects of proposed Consortia. All funding awarded will be for the purpose of supporting GRI activities described in the grant agreements; it will not be in the form of endowments to the Research Consortia or their home institutions. The level of funding for each Research Consortium is expected to be different, concomitant with the requirements of the research to be performed.

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Each Research Consortium will be administered at a US academic or non-profit research institution (the Lead Research Institution). It is anticipated that the Lead Research Institution will be located in a Gulf State. However, the selection will be made by the Research Board based on the evaluation criteria delineated in the RFP-I. The collaborating members or institutions participating in each Consortium should bring world-class capabilities into the Consortium and may be drawn as needed from US and foreign universities and government laboratories, federally funded research and development centers, and other US and non-US institutions with unique, world-class capabilities. Each Research Consortium proposal must describe the Consortium's internal management and identify the proposed research and management leadership, addressing such issues as responsibilities of personnel, safety requirements, subcontracts, reporting requirements, provision of needed input into the GRI database and website, and adherence to US research requirements as for US National Science Foundation grants, among such other requirements described in the RFP and the GRI MRA. At minimum, each Consortium should have a lead PI who is Director of the Consortium and a Steering Committee of co-PIs (one from each collaborating institution) to serve as a governance team for the Consortium.

BP will transmit funds to the GRI Administrative Unit (AU), a department of the Alliance, to carry out the Research Board's administrative functions with regard to the proposal peer review process, linking each Research Consortium to the Research Board, and other administrative functions. Each Research Consortium will communicate directly with the GRI AU on administrative and financial issues, and in the handling of all reporting. The GRI AU will assemble reporting information and financial statements. A BP relationship manager will manage the financial, reporting, and intellectual property (IP) issues with the GRI AU.

As described in the GRI MRA, BP will transmit funds to a third party non-profit entity (the Grant Unit) for distribution to the Research Consortia, and the Grant Unit will enter into grant agreements with the Lead Research Institution of each Research Consortia.

The Research Board Point of Contact will be the Chair, Professor Rita Colwell, who can be contacted via the GRI website: <http://griresearchboard.org/contact/index.html>.

Funding

BP has committed \$500 million to fund the GRI over a ten-year period. These funds will support operating expenditures for the GRI, including:

- Support for co-investigators, postdoctoral researchers, graduate and undergraduate research students, and associated research expenses at the institutions of the Consortium
- Sub-awards to support co-investigators, postdoctoral researchers, graduate and undergraduate research students, and associated research expenses at the other institutions within the Consortium
- Field tests and demonstration projects needed to prove new technology
- Costs of establishing and maintaining a publicly accessible, transparent database of information generated by the GRI that is consistent with modern informatics best practices
- Funding of research vessels, research aircraft, small boat operations, and use of other large research facilities, such as computer modelling centers, scanning

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electron microscopes, and major analytical chemistry or analytical biology instrument centers

- Fast-action block grants awarded by BP to Gulf institutions or Consortia of institutions and to the National Institutes of Health in the initial and past first year of GRI funding
- Costs associated with operation of the Research Board Administrative Support Group, GRI AU, and Research Board functions
- Standard academic overhead (e.g., US Government approved overhead rates for research grants from such entities as the National Science Foundation, National Institutes of Health, Department of Defense, NOAA – whichever agency is the oversight audit agency for federal grants and contracts at that institution) that supports the costs of the physical infrastructure and the administration of research activities

The funds distributed by BP under the GRI shall not be used by any Research Consortium, research institution, or co-investigator for the acquisition or construction of physical infrastructure (including, but not limited to ships, autonomous underwater vehicles, or laboratories), except where specifically authorized by the Research Board pursuant to a grant or annual continuation funding under such grant.

Timeline

Year 2011

| | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 25 April | RFP-I Released |
| 9 May 9:00 p.m. EDT | LOI from each prospective Research Consortium due |
| 16 May | LOI information on the location of the proposing Consortium, the point of contact, and GRI themes to be posted on GRI website |
| 6 June 9:00 p.m. EDT | Updated LOI information on institutions and personnel due |
| 11 July 9:00 p.m. EDT | Research Consortium proposals in response to RFP-I are due |
| 30 August | Announcement of Research Consortia funded in response to RFP-I |

Section III: Structure of the Research Consortia

A Research Consortium will involve four or more universities, institutions, or independent organizations. Combinations of departments, centers, or institutes located at one university do not constitute a Research Consortium for the purposes of this RFP. In general, the Research Consortia shall consist of Research Institutions in the Gulf Coast States, provided that Research Institutions outside of the Gulf Coast States may be members of or participate in partnerships with such Research Consortia, to the extent required to ensure the delivery of high-quality scientific studies in fulfillment of the objectives and ultimate goal of the GRI.

A science- and capabilities-based approach will be used in the selection process. A Research Consortium proposal should document the proposed activities and how they will address the GRI science themes, as well as the scientific and management capabilities needed to

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carry out the proposed work. Each Research Consortium proposal must follow the format presented in Section IV and in each part clearly describe the Consortium's unique capabilities and relevant experience, with particular attention to the topics below.

Research Program

An essential criterion for selection of Research Consortia will be the significance of the proposed work within the GRI research themes and its potential to address the goals of the GRI. Each Research Consortium should define its primary mission in terms of one of these areas of research or a carefully crafted interdisciplinary combination of some of these areas of research:

1. Physical distribution, dispersion and dilution of petroleum (oil and gas), its constituents, and associated contaminants (e.g., dispersants) under the action of physical oceanographic processes, air-sea interactions, and tropical storms.
2. Chemical evolution and biological degradation of the petroleum/dispersant systems and subsequent interactions with coastal, open-ocean, and deep-water ecosystems.
3. Environmental effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms; and the science of ecosystem recovery.
4. Technology developments for improved response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases.
5. Fundamental scientific research integrating results from the other four themes in the context of public health.

Each Research Consortium should provide a section on public education and outreach to deliver its scientific results to a broader community.

Each Research Consortium proposal should present a clearly defined vision, its goals in the context of the broad GRI goals, and the expected impact of its research. Innovative combinations of scientific problem definition and state-of-the-art research techniques with deep scientific and technical knowledge of the Gulf of Mexico system are expected to provide the greatest opportunity for significant scientific advances. Evidence of potential transformative advances in understanding the interactions that occurred and continue to occur among the marine and coastal ecosystems, petroleum, and dispersants after the catastrophic loss of the DWH drilling platform will be an important criterion for assessment of a Research Consortium proposal.

LOI information on the location of the proposing Consortium, point of contact, and GRI themes will be posted on the GRI website¹³ to encourage creation of robust partnerships and collaborations.

A proposal for a Research Consortium must include a clear description of all sub-projects within the program and the key personnel involved in them, a specific listing of the institutions and key individuals who will be participating in the Consortium, and a description of the allocation of resources among the Consortium members and sub-programs of the Consortium.

¹³ <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/letters-of-intent/>

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The broad capabilities required for a Research Consortium will include:

- A compelling scientific vision with well-defined goals within the scope of the GRI themes and goals
- World-class expertise in the topics of the GRI, including specific local knowledge of the environmental and public health issues in the Gulf of Mexico region
- Established infrastructure for sampling, analysis, modeling, and data management
- Project management expertise in overseeing a collaborative research program, including an extensive network of university partners
- A capacity for delivering mission-oriented programs against a broad agenda

Proposals may include responses to the following questions:

- *How would successful completion of the proposed work advance societal ability to understand and respond to oil spills and associated stresses on the marine and coastal ecosystems?*
- *How will cutting edge scientific approaches be coupled with local knowledge to create new understanding?*
- *What prior research accomplishments of members of the proposed Consortium serve as the basis for the proposed work?*
- *What prior accomplishments demonstrate the ability of the proposed Consortium to support a collaborative program of the magnitude proposed?*
- *How would the Research Consortium manage the technical capabilities, interests, and representations of multiple partners?*
- *Are any special provisions made to facilitate collaboration between Research Consortia and within institutions?*
- *Are the proposed roles and accountabilities for control of the research agenda sufficient to set direction, monitor performance, and support delivery of the GRI's objectives?*
- *Does the Consortium leverage important resources that will contribute to the effectiveness of the research?*

Governance and Administration of the Research Consortia

Each Research Consortium shall be led by a Lead Research Institution, which will enter into a grant agreement on behalf of the Research Consortium, as well as sub-grant agreements with the Consortium members. The Lead Research Institution shall have various responsibilities as outlined in the GRI MRA and as specified by the Research Board, which shall include managing the implementation of research proposals funded under the GRI. The Research Consortium shall be led by a PI (Director who is resident at the Lead Research Institution), who shall also serve as the head of the Consortium's Steering Committee (Governance Team).

The PI (Director) of each Consortium and the Steering Committee (comprising co-PIs from each of the collaborating institutions) should be world-class leaders in their fields of

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research who are also skilled in research leadership and management. Since many of the co-investigators may be located at other sites, the Steering Committee must be able to establish a governance structure for managing personnel offsite. The PI and Steering Committee will be expected to secure services within the Lead Research Institution of the Research Consortium for accounting, procurement, personnel and visas, health and safety, adherence to established US federal research regulations, establishment and management of subcontracts, and any other required administrative services. The Steering Committee will similarly be expected to ensure such services within each of the institutions receiving subgrants.

The PI and Steering Committee's primary interface for the research program and reporting of results will be with the Research Board. Interactions between the Research Board and the Research Consortia will include (1) an initial 2-day coordination meeting in New Orleans of Research Consortia PIs, Steering Committee members, and key research investigators with the Research Board and (2) one annual 1-day symposium and a follow-on review meeting lasting one day per Research Consortium for discussion of program results in anticipation of selection and authorization of the following year's funded activities. This may require three days of non-travel commitment by the PIs and Steering Committee members. It is anticipated that the symposium and annual review will be convened at the home institution of one of the Research Consortia rotating among Consortia. Funds for attending these meetings should be included in the Consortium's proposed budget.

The GRI AU will coordinate with the Research Consortia to fulfill the reporting requirements described in the RFP and to provide to the Research Board with the annual planning updates and requests for continuation of funds from each Research Consortium. The GRI AU will implement an accounting system to process invoices and to prepare quarterly updates and an annual report of expenditures to be provided to the Research Board. The GRI AU will also maintain full records of all key personnel, publications, presentations, reports, and activities of the Research Consortia and make those available to the Research Board. The GRI AU will develop and maintain a website to make such information appropriately available to the public.

Items to include in proposal:

- Describe Consortium internal management and overall governance. The Consortium at a minimum is required to have a PI as Director and a Steering Committee consisting of co-PIs.
- Describe the roles and responsibilities of senior-level management of the Research Consortium.
- Describe how the Research Consortium will resolve potential conflict-of-interest issues.
- Explain how the proposed administrative model ensures sufficient independence of the research along with a reasonable reporting and compensation structure.
- Explain how the proposal supports the Consortium model, given that co-PIs and other investigators will be drawn from a Consortium of institutions. How will adequate administrative support at the other institutions be assured? How will the Research Consortium ensure that all participants in research have the necessary safety training for their research activities?

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- Describe the support for administrative functions that will be provided by the Lead Research Institution of the Research Consortium, and explain which functions will be handled directly by Research Consortium staff.
- Explain how all institutions in the Research Consortium will ensure compliance with US research requirements (e.g., biosafety, animal research, ethics in science, conflicts of interest, etc.).

Infrastructure and Research Facilities

The conduct of research in marine and coastal ecosystems may result in highly varied support system and infrastructure needs. It is expected that the multiple institutions involved in each Research Consortium will contribute complementary competencies with access to be shared broadly among the members of the Consortium. Research Consortia should put forward an integrated proposal detailing the entire infrastructure required to execute the program, including access to the necessary facilities.

Full proposals should include a reasonably detailed plan and budget for all required facilities (e.g., vessels, underwater vehicles, supercomputers, and aircraft). This plan should include a schedule framework, a detailed budget, and an explanation of the plan for contingencies should costs change. The sampling and survey plan requiring these facilities should be provided in the scientific/technical part of the proposal and referenced in the facilities section.

If sampling technology, analytical tools, or computational infrastructure needs to be purchased or developed, all program costs should be clearly stated. If access to existing long-term monitoring sites or other research facilities located in the Gulf of Mexico is required, terms of access and all associated costs should be clearly stated.

Research Consortia of the GRI should use their structure as Consortia to take full advantage of existing technology and infrastructure when already available. For example, access to existing capabilities should be ensured through the inclusion of the appropriate institutions in the Consortium, rather than through funding the development of duplicate capabilities. The bias for the use of existing technology places the emphasis on scientific research and analysis, rather than duplicative expansion of technology and systems, including data management and informatics. If the research program explores new areas requiring the development of special technology, the costs for the development of that technology must be reasonable and appropriate.

The funds distributed by BP under the GRI shall be used for the active conduct of research, and shall generally not be used by any Research Consortium, research institution or co-investigator for the acquisition or construction of physical infrastructure, including, but not limited to ships, autonomous underwater vehicles or laboratories (Capital Expenditures). GRI funds may only be used for Capital Expenditures to the extent that the Research Consortium was not able to obtain access to the required capital equipment within the consortium structure, or through other collaborations or partnerships, and such funding has been specifically approved by the Research Board under an approved grant or annual continuation of funding under such grant

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Proposals may include responses to the following questions:

- *What facilities and infrastructure are necessary and have been identified to undertake the proposed research program?*
- *What governance structure will be used to ensure balanced, collaborative access to needed infrastructure?*
- *Will new facilities need to be built or constructed to support the proposed work? If so, describe carefully why existing facilities cannot be utilized.*
- *What laboratory space has been identified to permit commencing proposed operations by August 30, 2011?*
- *Are there existing model agreements in place for use of Research Consortium facilities by third party or private users? If so, provide such model agreements as examples to the extent permissible, or describe the agreements to be developed.*

Research Staff

The research investigators will be drawn from multiple institutions and should be reimbursed appropriately for their time commitment to the research program based on the salary structures at their home institutions. The research that they lead will be open in nature and will include work by undergraduate students, graduate students, and postdoctoral research associates as appropriate. Payroll and personnel reimbursement policies of the home institutions of each research participant will be followed for all participants.

The required multi-institution collaborative nature of the work introduces critical challenges regarding information flow, alignment, and collaboration. The Consortium Steering Committee will play a key role in addressing these issues. An additional avenue to address such concerns is joint appointment to a Research Consortium with co-location of personnel for a significant fraction of the year. The program definition is fully open to a wide variety of staffing alternatives, and each Research Consortium proposal should detail prior experience with such structures and current plans for implementation.

All research staff conducting activities financed, directly or indirectly, in whole or in part, through the GRI, including co-investigators, undergraduate students, graduate students, and postdoctoral research associates, are subject to and must comply with the terms of the GRI MRA, including the requirement that all activities are to be carried out under professional standards of responsible conduct in research (e.g., as defined by the best practices outlined and described in the U.S. National Academy of Sciences "On Being a Scientist: A Guide to Responsible Conduct in Research. Third Edition" (2009), National Academies Press).

Proposals may include responses to the following questions:

- *How will graduate student and postdoctoral career mentoring be ensured?*
- *How will diversity and inclusion be fostered and ensured across the Consortium of participating institutions?*
- *What metrics of progress will be used in evaluating personnel involved in the Research Consortium?*

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- *What provisions will be put in place to deliver the GRI's requirements for collaboration and information exchange?*
- *Will government research laboratories be contractual parties to the Research Consortium? If so, will the control provisions of the Research Consortium with respect to IP, budgeting, procurement, etc. remain in effect?*
- *If needed for the proposed work, what departments and infrastructure are available for procuring and administering government contracts, i.e., Cooperative Agreements and Cooperative Research and Development Activities with US federal agencies?*

Interaction with For-Profit Organizations

It is expected that the vast majority of the work contemplated in the GRI will be conducted in either academic or not-for-profit institutions. However, there is a possibility that a Research Consortium may have an existing relationship, or may find it advantageous to enter into a new relationship, with a private or for-profit entity. Their contributions could be in the form of products, services, and expertise that will be crucial to the delivery of the research objectives. As with all participants in the GRI, any activities by private or for-profit entities will be subject to the terms of the GRI MRA.

Proposals may include responses to the following questions:

- *Does the Research Consortium contemplate delivery of any capabilities key to the GRI research objectives through the utilization of for-profit organizations?*
- *Are there any specific companies with which the Research Consortium has already established a working relationship or that it would recommend for partnering and inclusion in the program to ensure the success of the program?*
- *Do any restrictions exist on the use of third-party for-profit organizations in the conduct of research while using Research Consortium facilities?*

Publication, Data, and Intellectual Property

The work carried out under the auspices of the GRI is for the purpose of advancing knowledge and is expected to be published in peer-reviewed journals with excellent reputations. By accepting funding under the GRI, each Research Consortium, research institution and co-investigator agrees to be bound by all terms and conditions of the GRI MRA, including the Intellectual Property and Publications Policy of the Gulf of Mexico Research Initiative¹⁴.

The work carried out in the GRI is also expected to have wide utility to other researchers, government agencies, and others. The provision of a full and coherent database accessible to all scientists, policy makers, and the public is an essential outcome of the GRI. The GRI AU will maintain or contract for public database of GRI research results (data and metadata), with data to be posted with minimum time delay. It is a requirement that all GRI-sponsored data and the essential metadata be submitted to the GRI-AU and federal database or nationally recognized repository appropriate for the investigator's discipline with minimum time delay. Satellite imagery will be included where appropriate. It is essential that

¹⁴ http://gulfofmexicoalliance.org/pdfs/Gulf_of_Mexico_Research_Initiative_Master.pdf

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provision be made that video data be tagged with appropriate information to be included in the data submission. In addition, each Research Consortium is required to submit to the GRI AU evidence of these submissions with all necessary links. The GRI AU will be responsible for managing and linking these individual submissions. By this means, it will be possible to combine individual efforts into a coherent body of work that represents the entire GRI.

Research Consortia should include in their proposal their recommendation on a minimum time delay for submission of various types of sampling and analysis data, and include in budgets the costs associated with such submissions. These proposed timelines will be taken into account and a final decision will be made by the Research Board and communicated via the GRI AU at the time of final grant award negotiations.

It is the intent of the Research Board that these data management activities draw to the greatest extent possible on existing data management systems. The Research Board, in consultation with the Directors of the Research Consortia and the GRI AU, will develop policies concerning the appropriate formats and procedures for the GRI Research Database to be created and managed by the GRI AU. Research Consortia will then be required to adhere to all GRI data policies.

Proposals may include responses to the following questions:

- *Does the Research Consortium, including all member research institutions and co-investigators, agree with the publication provisions contained in the Policy? If the Research Consortium, including all member research institutions and co-investigators, will be unable to adhere to any provision, please identify it specifically.*
- *Does the Research Consortium, including all member research institutions and co-investigators, agree with the database approach described above? If the Research Consortium, including all member research institutions and co-investigators, will be unable to adhere to any aspect is not acceptable, please identify it specifically.*
- *Does the Research Consortium, including all member research institutions and co-investigators, agree with the IP provisions contained in the Policy? If the Research Consortium, including all member research institutions and co-investigators, will be unable to adhere to any provision, please identify it specifically.*
- *Is the Lead Research Institution of the Research Consortium agreeable to a standardized transaction format consistent between Administering Institutions but that may be different than the Lead Research Institution's standardized format?*
- *Will the Research Consortium, including all member research institutions and co-investigators be bringing specific IP rights, obligations, and/or encumbrances to the Research Initiative that could affect the IP rights that might be generated under the GRI?*
- *Does the Research Consortium, including all member research institutions and co-investigators, have any conflicts or is it obliged to take any actions or to refrain from any actions that might affect its ability to conduct the work under the Research Initiative? Please list any concerns.*

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GRI Agreements

Upon selection of the Research Consortia, grant agreements will be negotiated and executed between the GRI Grant Unit and the Research Consortia in accordance with the GRI MRA. The Lead Research Institution shall execute this Agreement on behalf of the Research Consortium, and shall then enter into sub-grant agreements with Consortium Members; both the grant and sub-grant agreements shall incorporate the terms of the GRI MRA.¹⁵

Section IV: Format of the Letter of Intent and the Proposal

Letter of Intent

The LOI is an early commitment document intended to detail the interest of any consortium of institutions in submitting a proposal to be considered as one of the Research Consortia. Details of the format for the LOI are found at <http://griresearchboard.org/rfp/RFP-I.html>. The deadline to submit a LOI is May 9, 2011 at 9:00 p.m. EDT. No proposal will be accepted without an LOI.

The LOI, without the information on the estimated funding request, will be published at <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/letters-of-intent/> to improve the opportunities for collaboration between and among those interested in being participants in a Research Consortium.

In addition, the LOI will provide essential information for avoiding conflicts of interest in the establishment of lists of potential reviewers and for determining the number of reviewers needed for the review process.

The proposed participants in a Research Consortium must be updated prior to submission of the proposal as noted in the Instructions for LOIs. The deadline to submit an LOI update is June 6, 2011 at 9:00 p.m. EDT.

Proposal: Proposed Consortium and Research Activities Description

The formal proposal to be submitted on or before July 11, 2011 at 9:00 p.m. EDT should indicate the interest, approach, and qualifications of the Research Consortium. The proposal should follow the format outlined in the instructions document, with reference to the specific questions posed in the previous sections of the RFP. Instructions for the proposal format are at <http://griresearchboard.org/rfp/RFP-I.html>.

¹⁵ http://gulfofmexicoalliance.org/pdfs/Gulf_of_Mexico_Research_Initiative_Master.pdf

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Section V: Evaluation Criteria

Guidance regarding evaluation of the proposals is as follows, with Scientific Merit a primary consideration.

Scientific Merit (40%)

- What are the scope, quality, and potential for fundamentally significant results of the proposed research?
- Do the organizations involved have a demonstrated record of scientific achievement in the relevant science?
- Is there a clear enunciation of how the research will address the goals of improving the environmental robustness of the Gulf of Mexico and/or the related issues of public health?

Capability (18%)

- What is the expertise of the members of the proposed Research Consortium in the relevant research domains?
- Can the proposed Research Consortium access key personnel and supporting infrastructure to launch their activities in a timely manner?
- Have the participating Consortium members been chosen appropriately to ensure that the infrastructure (sampling systems, research vessels, analyzers, modeling capability and computational facilities, data management systems, long-term monitoring sites, personnel with substantial local expertise where applicable, etc.) is already in place or able to be lined up in short order to support the planned work?
- Does the proposed Research Consortium have all the relevant competencies to undertake the work contemplated in this proposal? Will the work be sufficiently integrated across the collaborating institutions to deliver the research objectives?

Experience (18%)

- What is the track record of the members of the proposed Research Consortium in the delivery of focused, cooperative research?
- Has the proposed Research Consortium been effective in recruiting world-class talent into their Consortium of participating researchers?
- Have faculty members or key researchers been recruited recently, or are positions now contemplated in the participating institutions, to expand expertise in the relevant research domains?

Public Education and Outreach (6%)

- What are the scope, quality, and potential for the proposed public education and outreach activities?

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- What is the track record of the members of the Research Consortium in the delivery of public education and outreach activities that are effectively coordinated with professional scientific research activities?

Management (18%)

- Will the governance structure proposed in the Research Consortium support delivery of the GRI objectives including adherence to all, provisions specified in the GRI MRA.
- What limitations (e.g., Research Consortium's policies, rules, or regulations) will affect the operation of the GRI as contemplated in this proposal?
- Is there sufficient administrative support for co-PIs and associated research staff at collaborating institutions, and for coordination with the Research Consortium?
- Will the research agreement provisions executed with the proposed Research Consortium be able to cascade down to the subgrants for the collaborating institutions to simplify the contract terms and administrative requirements?
- What is the value of the anticipated research outcomes to advancing knowledge within the major research themes of the GRI from a cost-effectiveness perspective? How will the specific research projects undertaken be centralized within the Research Consortium or alternately distributed among various universities or various departments within a university? How will the governance structure maintain the required balance of effort and resources?
- Is the research timeline realistic and are appropriate facilities available for the duration of the project?
- Are the overhead charges reasonable for the proposed Research Consortium and for work performed at collaborative institutions?

Review Process

The review process will be conducted in a manner similar to that at NSF, in which a panel of experts will evaluate the proposals and provide these evaluations and their recommendations to the Research Board for final selection of funded proposals and decisions about allocation of funding.

Section VI: Instructions for Proposal Submission

1.0 General

- 1.1 This RFP is for establishment of Research Consortia of participating institutions, with direct funding provided to the Research Consortia from the GRI Grant Unit.

2.0 Proposal Submittal AU contractor

- 2.1 LOIs must be submitted to the Research Board on or before May 9, 2011 at 9:00 p.m. EDT to <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/submission-forms-and-templates/loi-submission-form/> and must follow all of the instructions detailed in

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the RFP-I Instructions document, which can be found at <http://griresearchboard.org/rfp/RFP-I.html>.

- 2.2 LOI updates must be submitted to the Research Board on or before June 6, 2011 at 9:00 p.m. EDT to <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/submission-forms-and-templates/loi-update-form/> and must follow all of the instructions detailed in the RFP-I Instructions document, which can be found at <http://griresearchboard.org/rfp/RFP-I.html>.
- 2.3 Full proposals must be submitted to the Research Board on or before July 11, 2011 at 9:00 p.m. EDT to <http://gulfresearchinitiative.org/request-for-proposals/rfp-i/submission-forms-and-templates/proposal-upload-to-rb/>. The proposal must follow all of the instructions detailed in the RFP-I Instructions document, which can be found at <http://griresearchboard.org/rfp/RFP-I.html>.
- 2.4 If you will be providing confidential information in connection with your response to the RFP, then indicate the segments that cannot be made public and why.

3.0 RFP Document Clarification

Requests for clarification of the RFP and proposal instructions must be submitted via the GRI website: <http://griresearchboard.org/faq/>. Questions will not be accepted via phone or direct email to BP, GRI AU, any Research Board member, or any other group. Please review the Frequently Asked Questions posted on the website before submitting a question. This will be updated regularly with all responses to submitted questions.

Pertinent additional information given to any prospective Research Consortium will be posted on the GRI website <http://griresearchboard.org/rfp/RFP-I.html> and forwarded to all prospective Research Consortia as identified by their submission of an LOI. Prospective Research Consortia should designate a single point of contact for all correspondence.

4.0 BP and Second Party Obligations

Neither BP nor the Alliance (including the GRI AU) the Research Board nor any third party nonprofit organization providing administrative support to the GRI under the terms of the GRI MRA (including the American Institute of Biological Sciences [serving as the Research Board Administrative Unit] and the GRI Grant Unit) shall be under any obligation to provide funding to any specific proposal submitted, and shall not be held liable for any expense incurred in preparation or submittal of any proposal or any subsequent discussion and/or negotiations.

5.0 RFP Document Modification

The Research Board may clarify the RFP in any respect by way of clarification, addition, deletion or otherwise, up to two weeks prior to the due date of July 11, 2011, and will post any such changes on the GRI website and also forward to all proposing Research Consortia.

6.0 Proposal Authorization

The proposal shall be signed by those persons duly authorized to sign such document on behalf of the Lead Research Institution of the prospective Research Consortium and subgrantees. The names and titles shall be typed beneath their usual signatures.

7.0 Proposal Composition

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- 7.1 It should be noted that the RFP and information in the completed proposal, and subsequent modifications to the proposal as requested by the Research Board, shall form the basis of any grant that may ensue.
- 7.2 Prospective Research Consortia shall ensure that their proposals are complete in all respects such that a complete and meaningful evaluation can be accomplished.
- 7.3 Proposals that are incomplete or that do not address the research foci and required structure may be impossible to fairly evaluate and therefore may be rejected without complete evaluation.
- 7.4 The registered name and address of the Research Consortium submitting the proposal shall be clearly indicated.

8.0 RFP Document Errors or Omissions

The prospective Research Consortium shall take no advantage of any apparent errors or omissions in the RFP. In the event that any errors or omissions are discovered, the prospective Research Consortia shall immediately notify the Research Board Chair, Professor Rita Colwell, who can be contacted via the GRI website:
<http://griresearchboard.org/contact/index.html>.

9.0 Award of Grant

Following review, the Research Board may elect to award a grant for any, all, or none of the proposed activities in any given proposal. The selection of each Research Consortium includes a degree of selectivity, and the decision to make an award is entirely held by the Research Board within the scope of the RFP and the governing documents of the GRI, including the GRI MRA.