



**December 20, 2011  
NSBRI-RFA-12-01**

**National Space Biomedical Research Institute  
BioScience Research Collaborative  
6500 Main Street, Suite 910  
Houston, TX 77030-1402**

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# **NSBRI Announcement Soliciting Team Leadership Applications**

**A Request for Applications for the  
National Space Biomedical Research Institute**

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**Applications Due:            March 12, 2012**

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# NSBRI Request for Applications Soliciting Team Leadership Applications

## Summary of Opportunity

This National Space Biomedical Research Institute (NSBRI) Request for Applications (RFA) solicits proposals for Team Leadership positions. Each of the NSBRI science and technology teams consists of a set of complementary projects focused on a common research theme. Team Leaders are responsible for team management, coordination and integration. A single Team Leader, assisted by an Associate Team Leader, heads each science and technology team and is responsible for developing and implementing the team's strategic plan, in partnership with NSBRI senior management and NASA.

Eligible applicants to this NSBRI-RFA, whether as Team Leader or Associate Team Leader, must have at least one of the following:

- A currently funded NSBRI research grant that expires no sooner than June 1, 2013; or,
- An application for an NSBRI research grant that is currently pending (e.g., the applicant for Team Leadership has submitted a Step-2 proposal in response to the NSBRI portion of NRA NNJ11ZSA002NA, "Research and Technology Development to Support Crew Health and Performance in Space Exploration Missions.")

The term of the award is for a maximum of three years. It requires simultaneous funding of an NSBRI research grant. Team Leadership awards are competitively renewable. It is not necessary to respond to this NSBRI-RFA to become an Associate Team Leader (see Appendix B).

Awards are funded at an amount of \$120,000 total costs per annum per team divided as follows: \$60,000 for Team Leaders, \$30,000 for Associate Team Leaders, and \$30,000 for team activities in the NSBRI Consolidated Research Facility located in the BioScience Research Collaborative in Houston. A budget is not necessary for completion of an application.

In this NSBRI-RFA,

- Appendix A provides a description of the opportunity and instructions for proposal submission.
- Appendix B contains the NSBRI Policy on Team Leadership.

The following items apply only to this NSBRI-RFA:

<b>Solicitation NSBRI-RFA Identifier:</b>	NSBRI-RFA-12-01
<b>Application Format Required:</b>	Electronic application by email
<b>Addressed to:</b>	NSBRI Science Office
<b>Attention:</b>	Ms. Kimberly Friddle; friddle@bcm.edu
<b>Proposals Due:</b>	March 12, 2012, 5 p.m. CT
<b>Funding Begins:</b>	May 1, 2012
<b>Selecting Official:</b>	NSBRI Director

Information about NSBRI and its existing programs is available online at [www.nsbri.org](http://www.nsbri.org) or from:

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Your interest and cooperation in participating in this effort are appreciated.

## NSBRI Request for Applications Soliciting Team Leadership Applications

**NOTE: It is important for applicants to read carefully all of the instructions in this NSBRI-RFA.** The appendices include guidelines, requirements and policies concerning Team Leadership. They contain instructions for preparing and submitting proposals, and define the administrative procedures governing the particular components described in this NSBRI-RFA.

### I. Introduction

NSBRI is a NASA-supported, nonprofit research consortium charged with developing countermeasures for potential biomedical problems associated with human spaceflight. NSBRI's current science and technology program, aligned with the Human Research Roadmap (<http://humanresearchroadmap.nasa.gov>), consists of approximately 45 projects organized into research teams. Details concerning NSBRI can be found at [www.nsbri.org](http://www.nsbri.org).

Team Leaders and Associate Team Leaders play a pivotal role in leading the research teams, guiding the Institute's programs and helping to ensure the ultimate success of the Institute. Their expertise and "hands-on" approach to science management adds value across projects and across teams. Team Leadership is guided by the Institute's Strategic Plan and by NASA Human Research Program needs and requirements. The stature and reputation of Team Leaders and Associate Team Leaders encourage other scientists to apply to become team members, and NSBRI Team Leadership plays an important role in facilitating productive interactions between NASA investigators and those in the biomedical community at large. Team Leadership is charged with adding value to their teams by enabling appropriate synergies to advance the mission of NSBRI and its partnership with NASA.

NSBRI invites applications to lead an existing team in one of seven areas:

1. *Cardiovascular Alterations* – Determining the effect of long-duration spaceflight on the heart and blood vessels and researching ways to reduce the risks and to improve pre-flight detection and management of cardiovascular diseases.
2. *Human Factors and Performance* – Reducing performance errors and mitigating habitability, environmental and behavioral factors that pose significant risks to mission success.
3. *Musculoskeletal Alterations* – Understanding and mitigating bone and muscle loss during spaceflight.
4. *Neurobehavioral and Psychosocial Factors* – Investigating methods and tools to predict, prevent, detect and mitigate neurocognitive and psychosocial decrements in the space environment.

5. *Radiation Effects* - Determining the risks of space radiation with an emphasis on acute effects, and mitigating these effects through countermeasure testing.
6. *Sensorimotor Adaptation* – Addressing the problems of space motion sickness and disorientation during flight and the post-flight problems of balance and gaze disorders.
7. *Smart Medical Systems and Technology* – Developing new methods of noninvasive medical monitoring, diagnosis and therapy using small, low-power instrumentation for use on space missions.

## **II. Award Information and Eligibility**

This NSBRI-RFA is open to all applicants who meet at least one of the following criteria:

- Principal investigator on a currently funded NSBRI research grant that expires no sooner than June 1, 2013; or,
- Principal investigator on an NSBRI research application that is currently under review for funding (e.g., the applicant for Team Leadership has submitted a Step-2 proposal in response to the NSBRI portion of NRA NNJ11ZSA002NA, “Research and Technology Development to Support Crew Health and Performance in Space Exploration Missions.”)

The term of the award is for a maximum of three years. A Team Leadership award requires simultaneous funding of an NSBRI research grant. Team Leadership awards are competitively renewable. It is not necessary to respond to this NSBRI-RFA to become an Associate Team Leader.

Awards are funded at an amount of \$120,000 total costs per annum per team: \$60,000 for Team Leaders, \$30,000 for Associate Team Leaders, and \$30,000 for team activities in the NSBRI Consolidated Research Facility located in the BioScience Research Collaborative in Houston. A budget is not necessary for completion of an application.

## **III. Application Procedures**

Applications are to be submitted electronically as a PDF or Word document. There should be one-inch margins on all four paper edges and use of a standard 12-point font, such as Times New Roman. On the first page, include the title “NSBRI-RFA-12-01 Team Leadership Application” and the name of the team(s) that you are applying to lead. Include your name on all pages of the document.

Divide the document into seven sections labeled according to the following questions:

1. Why do you wish to take an NSBRI Team Leadership position?
2. What previous scientific experience qualifies you for a Team Leadership position?
3. What previous management experience qualifies you for a Team Leadership position?
4. Describe the vision for the team over the next three years. What particular human spaceflight risks and gaps should your team address?
5. How will you facilitate the maturation of your team’s research and technology projects and their transition to operational use?

6. How will you foster intra-team and inter-team collaborations to create value that is greater than the sum of the parts?
7. What strategies will you employ to facilitate productive interactions with NASA colleagues?

The application consists of your answers to these questions, wherein each section has a character limit of 2,500 characters (not including the characters in the question itself). Responses that exceed this limit will be truncated at 2,500 characters prior to being forwarded for review.

It is optional to specify whether you are applying for a Team Leader position and/or an Associate Team Leader position.

Completed applications must be submitted electronically by 5:00 p.m. CT, Monday, March 12, 2012. Applications are to be sent to Ms. Kimberly Friddle, NSBRI Science Office Coordinator, at [friddle@bcm.edu](mailto:friddle@bcm.edu). Acknowledgement of your submission will be sent to you electronically.

Please direct questions concerning this application procedure to Ms. Friddle, who can be reached by email at [friddle@bcm.edu](mailto:friddle@bcm.edu) or by calling 713-798-7412.

#### **IV. Review and Selection Process**

Only complete applications will be considered for review. The seven sections of the application will be discussed by members of the Institute's External Advisory Council (EAC) using the criteria set forth in the NSBRI Policy on Team Leadership (Appendix B). Each section will carry equal weight. The EAC will make recommendations concerning Team Leadership for each team. These recommendations will be discussed with senior management of NSBRI and NASA's Human Research Program, prior to selection by the NSBRI Director.

**NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE  
POLICY ON TEAM LEADERSHIP**

**(December 2011)**

**I. Overview**

Each team in the NSBRI Science and Technology Program is led by a single Team Leader who is assisted by an Associate Team Leader. Team Leaders and Associate Team Leaders play a pivotal role in leading the research teams, guiding the Institute's programs, and helping to ensure the ultimate success of the Institute. Their expertise and "hands-on" approach to science management adds value across projects and across teams. Team Leadership is guided by the Institute's Strategic Plan and by NASA Human Research Program (HRP) needs and requirements. The stature and reputation of Team Leaders and Associate Team Leaders encourage other scientists to apply to become team members, and NSBRI Team Leadership plays an important role in facilitating productive interactions between NASA investigators and those in the biomedical community at large. Team Leadership is charged with adding value to their teams by enabling appropriate synergies to advance the mission of NSBRI and its partnership with NASA. In particular, Team Leadership is expected to actively facilitate working relationships with relevant discipline leads within the NASA HRP at Johnson Space Center.

**II. Duties and Responsibilities**

Team Leaders are responsible for:

- Preparing and periodically updating the Team Strategic Plan, which is aligned with the Institute mission, NASA priorities, HRP Risks and Gaps, and available resources;
- Working with team investigators on projects that ensure scientific and operational synergy and lead to productive countermeasure development;
- Maintaining appropriate communication links among team investigators and other Team Leaders;
- Reporting team progress to NSBRI senior management and the Institute's External Advisory Council (EAC);
- Coordinating team activities with NASA scientists, engineers, physicians and other personnel, and pursuing involvement with NASA operational activities;
- Disseminating knowledge about team progress to NASA, the scientific community and the general public;
- Nurturing opportunities and seeking funding support for collaborative team efforts;
- Facilitating transition of research products to operational use; and,
- Acting as the senior NSBRI representative in the team's discipline.

Team Leaders report to the NSBRI Associate Director.

Associate Team Leaders assist Team Leaders in carrying out the above activities.



### **III. Qualifications**

Team Leaders are NSBRI-funded principal investigators who possess the following qualifications:

- Intermediate or senior rank at a recognized research facility or educational institution;
- Demonstrated record of securing independent competitive research funding for the last five years;
- Recognized within the biomedical community as an outstanding research contributor;
- Manifest broad scientific understanding across the team's research area (prior involvement with a NASA flight investigation is beneficial);
- Demonstrated leadership and program/group management skills, as evidenced by service as a section head, department chair, dean, research center director or principal investigator on a program project;
- Exhibit good communication, public speaking and organizational skills; and,
- Show a willingness and availability to spend the time and energy necessary to fulfill the role of Team Leader.

Associate Team Leaders are principal investigators on NSBRI-funded projects who possess at least the first four of the above qualifications required for a Team Leader. Generally, Team Leaders and Associate Team Leaders are not from the same institution.

### **IV. Term of Service**

Team Leaders are appointed by the Director for a term that corresponds with the term of their NSBRI-funded research project (generally three years), subject to satisfactory performance as determined by their annual performance review. The Team Leader appoints an Associate Team Leader for a term that does not exceed the Team Leader's term of service. The Team Leader's term is competitively renewable.

### **V. Funding and Authority**

Team Leaders and Associate Team Leaders are provided with discretionary funds to enable them to carry out team duties and responsibilities. Latitude is provided concerning the expenditure of these funds within the guidelines of the involved institutions. Such funds may be used for support personnel, team meetings, special travel and other expenses generally associated with team communication and operations. However, these funds may not be used to support research. Of these funds, NSBRI will hold in reserve \$30,000 per annum per team to cover expenses related to team activities and research and technology demonstrations to be conducted at NSBRI's Consolidated Research Facility at the BioScience Research Collaborative in Houston.

Team Leaders are ultimately responsible for carrying out the duties and responsibilities listed in Section II. They are expected to work cooperatively with their Associate Team Leader in all matters and should develop a clear understanding of the distribution of their shared responsibilities.

## **VI. Selection**

In the period before the term of service of Team Leaders ends, an NSBRI Announcement Soliciting Team Leadership Applications will be released. Applications will be reviewed and recommendations made by the EAC. The recommendations will be discussed with NSBRI senior management and NASA, prior to the selection of Team Leaders by the NSBRI Director.

Candidates for Associate Team Leader may apply to the NSBRI Announcement Soliciting Team Leadership and/or be nominated by the Team Leader. Selection is by the Team Leader, and requires approval from NSBRI senior management.

In selection of Team Leaders and Associate Team Leaders, attempts will be made to balance the scientific and managerial expertise of candidates and to develop diversity within the Institute's research leadership.

## **VII. Training and Support**

To assist Team Leaders in performing their duties, NSBRI provides electronic reporting and managerial tools, along with training as needed. There is a monthly teleconference of Team Leadership with NSBRI senior management and key headquarters staff. Forums are held at various times each year for Team Leadership to meet as a group with the Director and Associate Director.

## **VIII. Performance Evaluation**

Team Leader performance is assessed as follows:

- Annually, NSBRI management assesses each team, taking into account the annual team report of productivity and progress.
- Semi-annually, EAC reviews the effectiveness of the Team Leader in communicating the team vision and successes, and in discussing and handling team issues;
- Senior management, with input from NASA, periodically reviews Team Leader performance with the EAC, and formally assesses performance annually, prior to making non-competitive renewals of Team Leader awards; and,
- Every five years, an external committee appointed by NASA conducts a major review of NSBRI, including performance of Team Leaders.

Associate Team Leaders are evaluated annually by Team Leaders and senior management for contributions to their team and effectiveness in assisting the Team Leader.

In instances where Team Leader or Associate Team Leader performance needs improvement, the Associate Director, in consultation with the Director, will work constructively to remedy the situation.

## **IX. Conflict of Interest**

Team Leaders and Associate Team Leaders must adhere to the highest ethical standards and institutional regulations as they carry out their leadership duties on behalf of NSBRI and NASA. They must conduct all leadership duties with integrity, fairness and objectivity to ensure the scientific credibility of their team and the Institute.