

## Multidisciplinary Research Grant (MRG) MRG Program Guidelines & Instructions

### Deadline for Application

Proposals must be submitted via the North Carolina Biotechnology Center online application by:

**NOON, Wednesday, June 19, 2013**

See [www.ncbiotech.org/grants](http://www.ncbiotech.org/grants) for the Center's policy on deadlines in the event of inclement weather.

- ⊗ *Proposals sent by fax, e-mail or hard copy will not be accepted.*

### Program Requirements

#### **Purpose**

To enhance biotechnological innovation through multidisciplinary collaborations on projects with realistic potential for commercialization and revenue generation.

The MRG fosters interdisciplinary collaborations on complex problems that require more than one area of expertise to solve. MRG projects require team members to interact with each other to produce new approaches to a problem that would not be possible through any of the single disciplines.

The program requires North Carolina researchers from three distinct disciplines to work together for the advancement of the state-of-the-art in biotechnology:

- Each scientist must directly contribute approximately equal percent effort to the project, i.e., contributions should be equal in regards to their significance.
- Teams with multiple members from the same department are required to fully explain the distinct expertise that each member brings to the project.

**Note:** Although this program is intended to cultivate early stage collaborations on innovative ideas with commercial potential, it is expected that your team will have preliminary data to support the feasibility of the proposed plan of study.

- ⊗ *These grants do not support research projects that have already received federal funding.*
- ⊗ *These grants do not provide funds for out-of-state collaborators.*

#### **Funding & Matching Requirements**

Up to \$300,000 total for a maximum of two years.

- 10% minimum matching requirement from the principal investigator's institution(s). Matching funds may include salaries for support personnel (e.g. technicians, post-docs, etc.) and materials and supplies.
- 25% minimum capital costs matching requirement for equipment costing \$40,000 or more.
- All award funds are disbursed directly to the university or nonprofit research institute of the principal investigator.
- ⊗ *Faculty salaries may not be used as matching funds.*
- ⊗ *Biotechnology Center grants do not support indirect costs.*

#### **Who May Apply**

A primary applicant/principal investigator must be from a North Carolina academic or nonprofit research institute. (Other scientists in the collaboration may be from North Carolina industry.)

- For academic institutions, the principal investigator (PI) and co-investigators (Co-PI) must hold full-time tenure-track or tenured faculty appointments, or equivalent

appointments as a full time research faculty with a dedicated independent lab. Visiting scientists, post-docs, and other non-permanent positions are not eligible as PIs or Co-PIs.

- For non-profit research institutions, the principal investigator or co-investigators must be permanent research staff members with independent research programs.
  - An individual investigator may be a principal investigator or co-investigator on only one MRG submission per year.
- ⊗ *A principal investigator may have no more than two active awards from the Center at the same time.*

## Preliminary Consultation

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A preliminary consultation with Science and Technology Development staff is strongly encouraged. To find out if a project you plan to submit qualifies for this grant—or to obtain additional information—contact Ginny DeLuca at 919-549-8842 or send an email to [virginia\\_deluca@ncbiotech.org](mailto:virginia_deluca@ncbiotech.org). Please contact us at least **three weeks prior** to the deadline if you would like to schedule a consultation or have a draft reviewed.

## Resubmissions

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Please contact Ginny DeLuca at 919-549-8842 or send an email to [virginia\\_deluca@ncbiotech.org](mailto:virginia_deluca@ncbiotech.org) if you are resubmitting a previously submitted application.

## Review Process

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The review process has three parts:

- Examination by Biotechnology Center staff to ensure adherence to grant program guidelines and requirements, including biotechnology focus and commercial potential.
- Peer review by out-of-state reviewers.
- Final review and award by the designated committee of the Biotechnology Center's Board of Directors.

## Evaluation Criteria

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- Innovative project/program objectives.
  - Potential for commercial or economic return to North Carolina as a result of this project.
  - Significant impact on the development of biotechnology.
  - Significant collaborative input from all participants.
  - Logical and technically feasible project/program plan.
  - Thorough knowledge of current state of the field.
  - Reasonable probability of success taking into account staff qualifications, the availability of space and equipment, the projected timetable, etc.
  - Justification of need for Biotechnology Center support.
  - Budget sufficient but not inflated.
- ⊗ *The North Carolina Biotechnology Center does NOT fund clinical trials. Generally, if you are testing a new therapeutic, diagnostic, or device for safety and efficacy in patients, it will be considered a clinical trial.*

## Post-award Reporting

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Brief post-award reports are required. More information on reporting requirements will be provided on request or if a grant is awarded.

## Information Release

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It is the policy of the North Carolina Biotechnology Center to announce awards through press releases and other publications. These communications typically include the Project Title and Public Information Summary that are provided by the applicant on the proposal Cover Sheet. No information is released on declined proposals.

## Confidentiality

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The Biotechnology Center will endeavor to maintain the confidentiality of all applicants'

information. However, the applicant is responsible for not disclosing any information that should not be reviewed outside of the Biotechnology Center.

## Application Instructions

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Please use the checklist provided to make sure ALL components of the proposal application are included.

### Step 1: Read the Guidelines & Instructions

Thoroughly read these MRG Program Guidelines & Instructions prior to submitting an application. If you have any questions about the program, please contact Ginny DeLuca at 919-549-8842 or by email at [virginia\\_deluca@ncbiotech.org](mailto:virginia_deluca@ncbiotech.org). Please refer to our website at [www.ncbiotech.org/research-grants/research-funding/faq](http://www.ncbiotech.org/research-grants/research-funding/faq) for Frequently Asked Questions regarding budget, program-specific questions and more.

### Step 2: Prepare the Proposal

Prepare the Proposal as directed below:

- ⊗ *Applications that do not follow all these requirements will be declined without review.*

#### General Proposal Formatting Guidelines

- Use standard font (such as Times New Roman, Calibri, or Cambria) no smaller than 12 point.
- Page set-up should be for single-spacing on 8½"x11" paper.
- Number each page.
- Margins should be ¾" to 1".
- Each section should be titled using the header sections listed below and should match the Table of Contents.
- Do **not** use logos or letterhead on **any** pages of the Proposal.

#### Proposal Requirements

The Proposal must include the following sections:

- **Table of Contents**  
Include title, PI name, institution and page numbers.
- **Abstract** (one page)  
Include a description of the project and state

the specific objectives/aims.

- **Significance** (one to two pages)  
Describe the practical merits of the project and justify in terms of the potential for significant contributions to the development of biotechnology. Provide a preliminary assessment of the target market for the proposed biotechnological application or downstream product.
- **Background** (maximum 6 pages)  
Include literature review and preliminary data.
- **Research Plan** (maximum 10 pages)
  - Technical objectives
  - Experimental design and methods
  - Data analysis and interpretation
- **Project Timeline** (with target dates and preferably a graphic). See our FAQ website link for examples: [www.ncbiotech.org/research-grants/research-funding/faq](http://www.ncbiotech.org/research-grants/research-funding/faq)
  - For each part of the project, indicate which investigator will be doing the work.
- **Research Contributions and Collaborative Dynamic**
  - Research team: Describe the areas of expertise for the PI and Co-PIs on this project.
  - Explain why this research team is necessary to achieve the results of the study and how this project may lead to new or ongoing collaborations.
  - Other collaborators: Describe the role for any collaborators, consultants, etc.
  - Summary table: Provide a summary table of PIs and major contributors to the project. (See example on page 4)
- **Personnel**
  - Technical: who will be doing the experiments?
  - Administrative: who will be responsible for various aspects of the grant other than experiments?
- **Team Management**
  - Responsibilities: who will have primary responsibility for the different phases of the research project?
  - Coordination: what will be the means for data sharing and other aspects of project management?
- **Facilities** (available/required)
  - Space
  - Equipment
  - Agreements for facility sharing

## SUMMARY TABLE EXAMPLE

### Research Team and Other Collaborators: Contributions to the Project

| Role in Project | Name         | Title               | Institution     | Department                        | % Effort | Contribution to Project   |
|-----------------|--------------|---------------------|-----------------|-----------------------------------|----------|---|
| PI              | John Smith   | Associate Professor | UNC-CH          | Genetics and Molecular Biology    | 10%      | Project Coordinator; histological and biochemical assays; RNA extractions |
| Co-PI           | Mary Jones   | Associate Professor | UNC-CH          | Dept. of Medicine                 | 15%      | Protein characterizations   |
| Co-PI           | Jane Doe     | Assistant Professor | Duke University | Cellular and Molecular Physiology | 15%      | Cell culture, Microarray data analyses                                    |
| Collaborator    | Mike Johnson | Assistant Professor | UNC-CH          | School of Pharmacy                |          | Cheminformatics and modeling  |

- **Budget Justification**  
Explain each line item in the Budget. For example, provide calculations for sample size, use and number of kits, reagents, etc. In addition, explain sources of any other funding required for completion of the project.
- **Long-term Support** (if applicable)
  - Explain the sources of funds to cover maintenance service contracts and repairs for equipment.
  - Explain how the project, facility, and collaboration will be supported by future funding sources after the Center's award has expired, if applicable.
- **Bibliography**  
Give full citation including title and complete author list.
- **Current and Pending Grants**  
Provide the following information for each source of funding:
  - Funding agency
  - Project title
  - Award amount
  - Duration of award
  - Indicate how the proposed project is distinct from other listed projects and whether there is any overlap
- **Biographical Sketches**  
For all principal investigators involved in the project, include a biographical sketch with a list of no more than ten publications documenting each investigator's expertise in the proposed project. Limit each biographical sketch to no more than one page using the Biographical

Sketch form provided by the link on the website. Include the biographical sketches at the end of your proposal for submission.

### Convert Your Proposal into a PDF Document

- ⊗ Do not print and scan the proposal to convert to PDF – this will cause the PDF to be significantly larger (more megabytes).
- ⊗ Applications that do not meet these format requirements will not be considered.

### Step 3: Complete the Budget

Prepare your Budget using the **MRG Budget Sheet** provided by the link on the website.

All funds requested on the Budget Sheet must be justified under the Budget Justification section (above) of your proposal. The Budget is provided in Excel format and may be submitted as an Excel or PDF file.

The amounts in the Budget Justification and the Budget Form should match.

- For projects subcontracting with another institution, the budget information should be itemized on the budget form in the appropriate sections. The subcontract per se does not need to be listed on the budget form.

The title of the project **must** be included in the “Project Title” box at the top of the Budget Sheet.

⊗ *Failure to use the Budget Sheet provided will result in rejection of the proposal.*

If you have a question about a particular item or about your overall budget, we strongly encourage you to contact us at least **two weeks** before the application deadline. For a consultation, please contact Ginny DeLuca at 919-549-8842 or email [virginia\\_deluca@ncbiotech.org](mailto:virginia_deluca@ncbiotech.org).

### **Budget Guidelines**

All investigators **must** appear on the Budget Sheet even if no salary is requested. Percent effort contributed by each investigator **must** be included.

**Allowable** items include:

- Salaries/benefits for research team and other personnel.

**Important note: Requested funds** may include salaries/benefits for investigators and support personnel.

**Matching funds** may only include salaries/benefits for support personnel (technicians, Post-docs, etc.).

This program is not intended to be a support mechanism for graduate students. As a general guideline, we allow modest graduate student participation up to 25% of a graduate student’s salary and benefits.

⊗ *Faculty salaries may not be used as matching funds.*

- To calculate “person months,” see example in [www.ncbiotech.org/research-grants/research-funding/faq](http://www.ncbiotech.org/research-grants/research-funding/faq).
- Itemize materials and supplies (group into categories no larger than \$5,000, if possible).
- Equipment (items over \$40,000 require a direct 25% cash match).
- Travel to research sites (for projects involving two or more institutions/organizations or if research requires offsite visits).
- Travel to conferences (only if presenting research findings from this project).

⊗ *Travel funds to conference meetings and the like may not be used as **matching funds**.*

**Unallowable** items as requested or matching funds include:

- Publication costs
- Communication costs
- Tuition
- Service contracts
- Indirect/overhead costs

The MRG program requires an overall 10% match, not a line item match. However, requests for equipment costing over \$40,000 require a 25% match for the equipment portion, in addition to the 10% for the remaining items.

Please see link in our [www.ncbiotech.org/research-grants/research-funding/faq](http://www.ncbiotech.org/research-grants/research-funding/faq) for additional Budget guidance.

### **Step 4: Gather Supporting Documentation**

Combine the following Supporting Documents into a **single** PDF file. You can accomplish this by scanning related files together and then save as or convert to PDF.

#### **Cover Sheet**

Use the Cover Sheet form located on the website.

**Note:** This sheet must be the first page of the Supporting Documentation PDF.

- **Letters of Support**  
Include letters of support from:
  - Co-investigators
  - Collaborators and consultants
  - Sources of matching funds
  - Industry or other institutions (optional)
- **Documentation of IRB Approval**  
(for projects involving any human subjects)
- **Documentation of IACUC Approval with Animal Welfare Assurance #**  
(for projects involving any animal studies)

**Important note:** Only **ONE** Supporting Documents file will be accepted. Applications that are submitted with more than one Supporting Documents file will be **declined**.

**Note:** Do not include a list of Reviewers to be used/not used in your proposal PDF document. If you want to send a list, please email it to Ginny DeLuca at [virginia\\_deluca@ncbiotech.org](mailto:virginia_deluca@ncbiotech.org).

## Now that you have all the required attachments ready:

### Step 5: Complete the Online Application Form

Open the Application Form

[https://www.GrantRequest.com/SID\\_466?SA=SNA&FID=35033](https://www.GrantRequest.com/SID_466?SA=SNA&FID=35033) Complete all pages of the form. You can stop and save at any time and return to finish later.

The online application form includes a field for the **Public Information Summary**. If your proposal is funded, this concise, easy-to-read summary may be used in Biotechnology Center press releases, annual reports, and other publications. This summary is not an abstract and should **not** include complex scientific terminology. This summary is intended for a lay audience, allowing the Biotechnology Center to share granting information with the general public and other interested parties. The maximum allowable length for this summary is **50 words**.

### Step 6: Attach the Required Documents

- Follow the online instructions for attaching the Required Documents.
- The Proposal, Budget, and Supporting Documentation should each be attached as three separate files.

**Important note:** Only **ONE** of each of the above file types may be attached to the application for a **total of three attachments**. Proposals submitted with more than three attachments will be **declined**.

### Step 7: Review and Submit

Carefully review your application package using the checklist provided on the website then submit your MRG application prior to the Grant Program Deadline.

Submission of your grant application indicates that:

1. You have read and understand the information and directions in this Application Package and agree to be bound by the conditions stated herein.
2. You release the North Carolina Biotechnology Center from any claim for damages caused by:
  - a. Disclosures required under the provisions of any North Carolina or United States law, statute, or regulation,
  - b. Disclosures made in connection with the North Carolina Biotechnology Center's funding review and approval process,
  - c. Disclosures required by rule or order of any court of competent jurisdiction, or
  - d. Any other non-negligent, inadvertent, unintentional, unknowing, or immaterial disclosure.
3. All research conducted during the proposed project is performed in accordance with established university policies and procedures, including—but not limited to—policies and procedures applicable to research involving human subjects, laboratory animals, or hazardous agents and materials.
4. If the project proposed involves vertebrate animals, the project complies with federal guidelines for vertebrate animal care and experimentation.

You will receive a confirmation email notifying you that the Biotechnology Center has received your application. Any Center request for additional proposal information must be addressed within 24 hours.

**Science and Technology Development Program** | North Carolina Biotechnology Center

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919-541-9366 • fax 919-314-8296 • See our grant application Web page at [www.ncbiotech.org/grants](http://www.ncbiotech.org/grants)