

APPLICATION FOR FEDERAL ASSISTANCE
SF 424 (R&R)

1. * TYPE OF SUBMISSION ☐ Pre-application ☐ Application ☒ Changed/Corrected Application		2. DATE SUBMITTED 06/12/2009	Applicant Identifier
		3. DATE RECEIVED BY STATE 	State Application Identifier
		4. Federal Identifier GRANT10349696	
5. APPLICANT INFORMATION * Organizational DUNS: 0900516160000			
* Legal Name: University of Puerto Rico			
Department: VP for Research and Technology Division: Central Administration			
* Street1: 1187 Flamboyant Street			
Street2: Botanical Garden South			
* City: San Juan County: San Juan			
* State: PR: Puerto Rico Province:			
* Country: USA: UNITED STATES * ZIP / Postal Code: 00926-1117			
Person to be contacted on matters involving this application			
Prefix: Dr. * First Name: Emma Middle Name:			
* Last Name: Fernandez-Repollet Suffix:			
* Phone Number: 787-765-8767 Fax Number: 787-751-7378			
Email: e.fernandez@upr.edu			
6. * EMPLOYER IDENTIFICATION (EIN) or (TIN): 660433767			
7. * TYPE OF APPLICANT: H: Public/State Controlled Institution of Higher Education			
Other (Specify):			
Small Business Organization Type ☐ Women Owned ☐ Socially and Economically Disadvantaged			
8. * TYPE OF APPLICATION:			
☒ New ☐ Resubmission		If Revision, mark appropriate box(es).	
☐ Renewal ☐ Continuation ☐ Revision		☐ A. Increase Award ☐ B. Decrease Award ☐ C. Increase Duration ☐ D. Decrease Duration	
		☐ E. Other (specify):	
* Is this application being submitted to other agencies? Yes ☐ No ☒ What other Agencies? :			
9. * NAME OF FEDERAL AGENCY: National Institutes of Health		10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 93.702	
		TITLE: NCRR Recovery Act Construction Support	
11. * DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: MOLECULAR SCIENCES VIVARIUM			
12. * AREAS AFFECTED BY PROJECT (cities, counties, states, etc.) Puerto Rico		13. PROPOSED PROJECT:	
		* Start Date * Ending Date	
		12/01/2009 11/30/2014	
		14. CONGRESSIONAL DISTRICTS OF:	
		a. * Applicant b. * Project	
		00-000 00-000	
15. PROJECT DIRECTOR/PRINCIPAL INVESTIGATOR CONTACT INFORMATION			
Prefix: Dr. * First Name: Emma Middle Name:			
* Last Name: Fernandez Repollet Suffix:			
Position/Title: Vice President for Research and Technology			
* Organization Name: University of Puerto Rico			
Department: VP for Research and Technology Division: Central Administration			
* Street1: 1187 Flamboyant Street			
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* Phone Number: 787-765-8767 Fax Number: 787-751-7378			
* Email: e.fernandez@upr.edu			

OMB Number: 4040-0001
Expiration Date: 04/30/2008

ABSTRACT

The primary goal of this proposal is to expand competitive biomedical research at the University of Puerto Rico by providing a state-of-the-art animal facility which offers an environment that meets or exceeds all applicable policies, guidelines and regulations, including AAALAC accreditation. The Vivarium facility is a (19, 928 gsf) fit out on the 7th level of the Molecular Science building comprised of a cage wash area with staging, soiled and clean zones, and a sterilized storage area; a feed and bedding storage area; a surgical suite; a necropsy area; a vet lab and pharmacy; quarantine and isolation areas; and animal holding rooms with associated procedure rooms and support lab spaces. A first floor loading area will be available for the vivarium with an area for a automated bedding disposal dumpster and animal carcass freezers.

The primary goal of the project will be achieved through the completion of the following specific aims: (1)proving a modern animal facility to support interdisciplinary research in the areas of neurosciences and biomedical nanosciences based on a green/ sustainable design. The facility will consist of an area for housing conventional animals, an isolation area that will provide housing for transgenic rodents from non-certified vendors, as well as the experimental spaces needed for the research programs. (2) Procurement of energy efficient and water saver equipment required to support the animal use and care program to be instituted and (3) compliance with safety practices to meet or exceed IACUC, OLAW, USDA and AAALAC standards.

The development of this state-of-the-art vivarium will enhance current and future research activities by providing high quality animal services. The core resource will facilitate recruitment and retention of competitive investigators as well as create highly specialized job opportunities in biomedical sciences. Furthermore, the proposed construction activities and acquisition of equipment will create, promote and maintain jobs at vendor and construction companies within Puerto Rico and throughout the continental United States.

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4. Federal Identifier

GRANT10352901

5. APPLICANT INFORMATION

* Organizational DUNS: 9481080630000

* Legal Name: University of Puerto Rico Medical Sciences Campus

Department: Office of Sponsored Programs

Division: Office of the Chancellor

* Street1: P O Box 365067

Street2: Main Bldg., Floor 6, Suite B-622

* City: San Juan

County: San Juan

* State: PR: Puerto Rico

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 00936

Person to be contacted on matters involving this application

Prefix: Mr.

* First Name: Norberto

Middle Name: E.

* Last Name: Perez

Suffix:

* Phone Number: 787-758-2380

Fax Number: 787-766-6764

Email: enga.rcm@upr.edu

6. * EMPLOYER IDENTIFICATION (EIN) or (TIN): 66-0433762

7. * TYPE OF APPLICANT:

H: Public/State Controlled Institution of Higher Education

Other (Specify):

Small Business Organization Type ☐ Women Owned ☐ Socially and Economically Disadvantaged

8. * TYPE OF APPLICATION:

☒ New ☐ Resubmission

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☐ A. Increase Award

☐ B. Decrease Award

☐ C. Increase Duration

☐ D. Decrease Duration

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9. * NAME OF FEDERAL AGENCY:

National Institutes of Health

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 93.702

TITLE: NCRR Recovery Act Construction Support

11. * DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

Interdisciplinary Neuroscience Research at the UPR Molecular Sciences Building

12. * AREAS AFFECTED BY PROJECT (cities, counties, states, etc.)

Puerto Rico

13. PROPOSED PROJECT:

* Start Date

* Ending Date

12/01/2009

11/30/2014

14. CONGRESSIONAL DISTRICTS OF:

a. * Applicant

b. * Project

00-000

00-000

15. PROJECT DIRECTOR/PRINCIPAL INVESTIGATOR CONTACT INFORMATION

Prefix: Prof.

* First Name: Walter

Middle Name: R.

* Last Name: Frontera

Suffix: M.D.

Position/Title: Dean of Medicine

* Organization Name: University of Puerto Rico Medical Sciences Campus

Department: Office of Sponsored Programs

Division: Medicine

* Street1: P O Box 365067

Street2: Main Bldg., Floor 6, Suite B-622

* City: San Juan

County: San Juan

* State: PR: Puerto Rico

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 00936

* Phone Number: 787-758-2525 X 1800

Fax Number: 787-756-8475

* Email: walter.frontera@upr.edu

The application ***Interdisciplinary Neuroscience Research at the UPR Molecular Sciences Building*** integrates the NCRR-sponsored construction of its new MSB with the construction of new research facilities in two of its floors for the development and evolution of Neuroscience. The UPR MSB is a 152,000 sq.ft. state-of-the-art research facility that will house laboratories and areas for conducting basic, clinical and translational biomedical and behavioral research. The proposal delineates a significant step in the UPR research paradigm by integrating faculty and students from different UPR campuses (UPR-MSC and UPR-RP) and institutes (Institute of Neurobiology), neuroscientists with different educational backgrounds (biologists, chemists, pharmacologists, physiologists, physicians, among others) in a new MSB with innovative open research space design that promotes collaborative research. It seeks to achieve the latter improvement by addressing the need to maintain and expand the present and future workforce for Neuroscience research at the UPR. This C06 specifically seeks support for the construction of research facilities in two of its floors (3rd and 4th). The strategy underlying the occupancy of these two floors of the MSB was led by the identification of four (4) specific NS thematic areas (NTA): **NTA 1.** Molecular Determinants of Addiction; **NTA 2.** Neurobiology of Anxiety and Emotion; **NTA 3.** Cellular and Molecular Basis of Development, Aging and Neurodegenerative Disease; and, **NTA 4.** Molecular Basis of Neuromuscular and Movement Diseases. The specific aims are : (1) to address the needs to maintain and facilitate the development of six (6) existing UPR neuroscientists, attract and recruit four (4) leading competitive neuroscientists, and to accommodate visiting scientists (1 per year) belonging to **NTA 1 and NTA 2** by the construction of new open, GLP-compliant laboratory bench space and collaboration areas at the **3rd floor of the MSB.** (2) to address the needs to maintain and facilitate the development of eight (8) existing UPR neuroscientists, attract and recruit two (2) leading competitive neuroscientists, and to accommodate visiting scientists (1 per year) belonging to **NTA 3 and NTA 4** by the construction of new open, GLP-compliant laboratory space and collaboration areas at the **4th floor of the MSB.** (3) to enhance the environment for the harboring and expansion of the existing and future Neuroscience research workforce (faculty, student trainees, research technicians, and postdoctoral fellows) by the construction of new open office space and support personnel/administration area, and faculty office space at each of the 3rd and 4th floors of the MSB. (4) to provide an enriched infrastructure to conduct molecular biology, electrophysiology, cell/tissue culture, behavioral assays, and protein and subcellular purification procedures by the construction in each floor of alcoves, support laboratories, and core laboratory modules.

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5. APPLICANT INFORMATION			
		* Organizational DUNS: 143960193	
* Legal Name: University of Puerto Rico, Rio Piedras Campus			
Department: Office of the Dean		Division: College of Natural Sciences	
* Street1: P.O. Box 23341			
Street2:			
* City: San Juan		County:	
* State: PR: Puerto Rico		Province:	
* Country: USA: UNITED STATES		* ZIP / Postal Code: 00931	
Person to be contacted on matters involving this application			
Prefix:		* First Name: Rosa	Middle Name: L.
* Last Name: Suarez-Almedina		Suffix: PhD	
* Phone Number: 787 764-1005		Fax Number: 787 763-6190	
Email: finanzasdyu@uprrp.edu			
6. * EMPLOYER IDENTIFICATION (EIN) or (TIN): 1900002456-A1			
7. * TYPE OF APPLICANT: H: Public/State Controlled Institution of Higher Education			
Other (Specify):			
Small Business Organization Type ☐ Women Owned ☐ Socially and Economically Disadvantaged			
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		TITLE: NCRR Recovery Act Construction Support	
11. * DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Macromolecular Sciences Center for Biomedical Applications			
12. * AREAS AFFECTED BY PROJECT (cities, counties, states, etc.) Puerto Rico		13. PROPOSED PROJECT:	
		* Start Date 12/01/2009 * Ending Date 11/30/2014	
		14. CONGRESSIONAL DISTRICTS OF:	
		a. * Applicant 00 b. * Project PR	
15. PROJECT DIRECTOR/PRINCIPAL INVESTIGATOR CONTACT INFORMATION			
Prefix:		* First Name: Brad	Middle Name: R.
* Last Name: Weiner		Suffix: Ph.D.	
Position/Title: Professor			
* Organization Name: University of Puerto Rico, Rio Piedras Campus			
Department: Office of the Dean		Division: College of Natural Sciences	
* Street1: P.O. Box 23341			
Street2:			
* City: San Juan		County:	
* State: PR: Puerto Rico		Province:	
* Country: USA: UNITED STATES		* ZIP / Postal Code: 00931	
* Phone Number: 787 765-9695		Fax Number: 787 772-1413	
* Email: brad@hpcf.upr.edu			

OMB Number: 4040-0001
Expiration Date: 04/30/2008

Macromolecular Science Center for Biomedical Applications

ABSTRACT

The central purpose of this proposal is to expand the capacity of the University of Puerto Rico to carry out NIH-supported biomedical research and research training. This proposal to the NIH Extramural Research Facilities Improvement Program (C06) (RFA-RR-09008) from the University of Puerto Rico-Rio Piedras (UPRRP) requests \$14,991,337 for the internal construction of two floors (29,623 net square feet) in the eight-story UPR Molecular Sciences building shell now under construction in San Juan, Puerto Rico. This building is critical to UPR and to Puerto Rico as the first building on the island specifically for research and development. This need arises from the critical lack of quality, collaborative research space in Puerto Rico for the molecular sciences. Current research space is not designed for the exacting requirements of the molecular sciences, which impedes progress in basic and translational biomedical research on the island. We are short of research space at UPRRP to grow desired programs.

This proposal focuses on research in Macromolecular Science for Biomedical Applications for the 5th and 6th floors, which will be shared with UPR Medical Sciences Campus. Biomedical Nanoscience and Biochemistry are two well developed subareas at UPR under Macromolecular Science, and are ready for significant expansion.

The specific aims of this proposal are to:

- 1) On floor 5 for Biomedical Biochemistry: construct 7878 net sq. ft. of laboratory space, 2996 net sq. ft. of shared facilities, and 3888 net sq. ft. of office/conference space.
- 2) On floor 6 for Biomedical Bio-Nanoscience: construct 7878 net sq. ft. of laboratory space, 3095 net sq. ft. of shared facilities, and 3888 net of office/conference space.

The future of science lies in insights from other disciplines and teamwork. The building is designed to promote multidisciplinary collaboration. Researchers will occupy the building based on their competitiveness and collaborative biomedical research potential. Quality research space will attract first rank new researchers, and help train more women and underrepresented minorities, thereby increasing and diversifying the US biomedical science work force.

The Molecular Sciences Building helps to close the gap in the Puerto Rico government's high tech plan, which lacks a research and development component. The facility will expand the capacity for cutting-edge biomedical research translatable to biomedical solutions as well as to economic opportunity for Puerto Rico. The Building will promote economic recovery through current and future jobs, investment to spur technological advances in health, long-term investment in infrastructure, and the use of green/sustainable technologies in building design.