

Puerto Rico IDeA Network of Biomedical Research Excellence

#### **Town Hall Meeting**

April 16, 2021

# Program Overview

Presented by Jose R. Rodriguez Medina PI/PD



# Background

- INBRE has been active in Puerto Rico since **2001**.
- Currently in **Year 1** of a new cycle (July 15, 2021 to June 30, 2026.



# **External Advisory Committee**

#### James R. Brown M.Sc., Ph.D.

Senior Director Computational Biology and Integrated Data Science Kaleido Biosciences Lexington MA 02421 USA

#### Reinhard Laubenbacher, Ph.D.

Dean's Professor of Systems Medicine Director, Laboratory for Systems Medicine Division of Pulmonary, Critical Care, and Sleep Medicine Department of Medicine University of Florida

#### Sanjay V. Malhotra, Ph.D., FRSC

Professor & Endowed Chair in Cancer Research Director, Center for Experimental Therapeutics Oregon Health & Science University

#### Stephen J. Cutler, Ph.D.

Dean and Professor College of Pharmacy University of South Carolina

#### Veronica Martinez, Ph.D.

Associate Prof. in Residence Pathology & Laboratory Medicine University of California at Davis











Dr. Robert M. Williams passed away on May 13, 2020





GOAL 1 

Build on the established multi-disciplinary research network with a scientific focus to strengthen the lead and partner institutions' biomedical research expertise and infrastructure GOAL 2 **R- N** 

Enhance the research capacity of network institutions so they can participate more fully in the competition for NIH awards

> collaborative partnerships development of areas of potential research research support for faculty development access to research resources

GOAL 3 

Provide hands-on research experiences, mentoring, and career development activities for students and faculty at primarily undergraduate institutions, community colleges, and minority serving institutions, and serve as a pipeline to health research careers

# All Grants @t the PR-INBRE Network by years

Year	Submitted	Awarded	Amount Awarded
2015-2016	108	21	\$3,767,107
2016-2017	169	85	\$5,082,556
2017-2018	83	45	\$12,900,368
2019	223	43	\$29,080,255
2020-present	124	27	\$9,081,229
Total	707	221	\$59,911,515

Yr. 2019, PHSU awarded with U54 (\$21M)

Grants include NIH, NSF, Department of Education, Other federal agencies, Foundations, State Funds

Data Source: Network Institutional Profile, NIH Reporter



## **Publications with PMCID by Years**





# **Total Presentations by Years**





# DRPP Investigators Grants <u>Awarded</u> by years



80

Grants Awarded may include R21, R15, SC1, NSF, FIPI, PRST, Foundations

# STEM Students @t the Network





### Pursued 12,843

## Degrees Awarded 1,772



Data Source: Institutional Profile 2020, N=9



# 110

### Students mentored by **DRPP investigators** Year 2020-Present



# Development of STEM Curriculum at Network



## **New courses** at PUIs and OI

# Seminars & Workshops



### 530 participants

**96%** average satisfaction

**Calls** for Junior Research Associates **applications**, Faculty **Travel** Awards, Support for Access to Scientific Articles, and other programs will be issued.



# Call for Abstracts

2021 Southeast Regiona IDeA Conference November 12-14, 2021 San Juan, Puerto Rico

The Puerto Rico IDeA Programs are honored to host a three-day meeting of talks, activities, and workshops. The Regional Conference has served as an important platform to discuss matters of science, administrative policy, and best practices in a cordial and interactive scholarly environment.

### Abstract Submission Deadline: September 15, 2021

Conference Information and registration: <u>https://www.seidea21.hpcf.upr.edu</u>









# Follow the PR-INBRE Website for updates



#### http://inbre.hpcf.upr.edu/

# Like us on facebook Linked in.



## Informational Workshop Developmental Research Projects Program 2021-2023 Grant Cycle

Su Dharmawardhane, Ph.D. INBRE DRPP Director 758-2525X1623 Su.d@upr.edu

inbre\_proposals@hpcf.upr.edu

NIH/NIGMS P20GM103475-19

### Our mission: To increase and develop the talent pool in PR





### OUTLINE

- 1. PR-INBRE Developmental Research Projects Program (DRPP) Funding process overview
- 2. PHS 398 Forms- what we expect
- 3. Composition of an Abstract/Summary
- 4. Specific Aims Page
- 5. Approach section
- 6. Additional attachments

## **Core Goals and Aims**

Provide mentoring and financial support to the developmental project investigators in **four** scientific cluster areas:

- 1. Neuroscience
- 2. Molecular Medicine/ Genomics
- 3. Drug Discovery and Development
- 4. Bioinformatics



- Support meritorious research to give release time and enable generation of data to submit manuscripts and grant proposals!
- Success is measured by independent awards from NIH, NSF, DoD, etc.



### **2P20GM103475-19** INBRE budget: 1.5 million 07.15.2021-07.14.2022

- **Aim 1**: Full project funding (\$100,000/yr) for 2.5 years (\$250,000)
- Aim 2: Pilot projects \$50,000/yr

**Aim 3**:

- Small instrumentation grants \$25,000 each
- Feasibility grants \$10,000 each

# **Specific Aim 3**: Enhance the research infrastructure of the PUIs and reinforce access to core facilities.

### Aim 3A. Small instrumentation grants for PUIs.

• \$25,000 each non-renewable for small instrument needs

### Aim 3B. Mini grants for feasibility studies.

 ~\$5-10,000 each, nonrenewable for collaborative projectsgrant or manuscript submission to <u>use the INBRE core facilities.</u>





## **PR-INBRE DRPP Funding Cycle 6**





### What happens to your application?


Overall Impact: The likelihood that a project will have a <u>sustained</u> and <u>powerful</u> influence on science (and/or clinical practice and/or technological developments?)		Overall Impact	High	Medium	Low	]
		Score	123	456	789	]
Evaluating Overall Impact: Consider the 5 criteria: significance, investigator, innovation, approach, environment (weighted based on reviewer's judgment)	e.g. Applicat addressing a <u>high</u> importa field. May ha no weaknes	tions are a problem of ance in the ave some or sses.	e.g. App may be a a proble importan field, but weaknes criteria b the over to mediu e.g. App may be a a proble <u>moderat</u> importan field, wi	lications addressing m of <u>high</u> nce in the t sses in the oring down all impact im. lications addressing m of <u>e</u> nce in the th some or	e.g. A may b a prot model import field, t weakr criteria the ov to low e.g. A may b a prot no imp the fiel	pplications e addressing olem of <u>rate/high</u> tance in the out nesses in the a bring down erall impact pplications e addressing olem of <u>low</u> or portance in Id, with some



5 is a good medium-impact application, and the entire scale (1-9) should always be considered.

# Each Reviewer will assign a score using the following criteria:

- 1. Significance
- 2. Investigators
- 3. Innovation
- 4. Approach

Non Scored Criteria: Environment, Protection of human subjects





Puerto Rico IDeA Network Biomedical Research Excellence

### Funding Opportunity Announcement (FOA)

- Please, use PHS398 forms (SF424 forms will not be accepted)!
- A developmental mentoring/collaboration plan is mandatory:

	Full Proposals	Pilot Proposals
Application page limit	12	6
Mentoring/Collaboration Plan	Should be included within the 12-page limit	Should be included within the 6-page limit
Required Support Letters	Letter or e-mail from the mentor and a letter of support from Department chair detailing full time employment as faculty with approval of at least 50% release time.	Letter or e-mail from the collaborator and a letter of support from Department chair detailing full time employment as faculty with approval of at least 25% release time.
IRB and IACUC Applications	Evidence required if applicable	Evidence required if applicable
Number of anticipated awards	1	10
Total Period Funding	\$250,000	\$75,000
Maximum Project period	2.0 yrs and 5 months	1 yr and 5 months

If the project involves OMICS or statistics- please consult with PRINBRE Bioinformatics core! http://inbre.hpcf.upr.edu/bioinformatics-resource-core/

# **Developmental Plan**

### Mandatory Training/Developmental Plan:

- Include a detailed training and Individual Development Plan (IDP). Identify weaknesses and indicate how collaborators and mentors can fill these gaps. Discuss how mentors and collaborators will specifically help the proposed research and your IDP.
- Indicate plans for training, conferences, publications, and grant applications.
- Explain how you would use this mechanism to leverage independent federal funding.
- The INBRE Leadership and the EAC can help you!

# **INBRE EAC Expertise**

- EAC member Reinharad Laubenbenbacher, Ph.D., Professor, Jackson Laboratory Cancer Center <u>https://www.jax.org/research-and-faculty/faculty/reinhard-laubenbacher</u> Bioinformatics
- EAC Member Dr. James Brown, Director, Computational Biology & GlaxoSmithKline Senior Fellow https://www.linkedin.com/in/james-brown-1b652a6/ drug development, Bioinformatics, and computational biology
- EAC Member Dr. Sanjay Malhotra, Professor, Ohio Health Sciences University <u>https://www.ohsu.edu/school-of-medicine/malhotra-lab/people</u> Experimental therapeutics for cancer
- EAC Member Dr. Stephen Cutler, Dean, College of Pharmacy, University of South Carolina <u>https://www.sc.edu/study/colleges\_schools/pharmacy/faculty-staff/cutler\_stephen.php</u> Natural products chemistry
- EAC Member Dr. Verónica Martinez-Cedeño, Professor, University of California, Davis. <u>https://biology.ucdavis.edu/people/veronica-martinez-cerdeno</u> Expertise in neuroscience, neurodegenerative diseases, autism

# INBRE Cores http://inbre.hpcf.upr.edu/

- Bioinformatics Resources Core (BiRC): Director, Dr. Humberto Ortiz: For assistance with bioinformatics and statistical design visit http://inbre.hpcf.upr.edu/bioinformatics-resource-core/
- Centralized Research Instrumentation (CRI):
   (<u>http://inbre.hpcf.upr.edu/centralized-research-instrumentation/</u>)

**Genomics**: Dra. Carmen Cadilla; **Sequencing and Genotyping**: Dr. Ricardo Pappas; **Proteomics**, Dra. Loyda Melendez; **Metabolomics**, Dra. Natalya Chorna, and **Chem Tox**, Dra. Beatriz Zayas

Small Grants Program gives \$5,000 to use INBRE core services!

- Science and Technology Competency Enhancement Core (STCE): Director, Dr. José Rodríguez-Orengo. Student stipends and student and faculty summer internships. <u>http://inbre.hpcf.upr.edu/stce/</u>
- **Developmental Research Projects Program (DRPP):** Drs. Su Dharmawardhane and Mariangeline Gonzalez has expertise in cancer biology, breast and pancreatic cancer, and cell and mouse models for testing experimental therapeutics

http://grants.nih.gov/grants/funding/phs398/phs398.html Grant Application PHS 398 (Revised 03/2020)

### Form Page 1: Face Page

**Form Page 2:** Summary, Relevance, Project/Performance Sites, Senior/Key Personnel (Biosketches 5 page), Other Significant Contributors, and Human Embryonic Stem Cells Form Page 3: Research Grant Table of Contents Form Page 4: Detailed Budget for Initial Budget Period Form Page 5: Budget for Entire Proposed Project Period (Modular Budget Form, with budget justification) **Resources Format Page Checklist Form** For Human subjects research: Planned Enrollment Report **Cumulative Inclusion Enrollment Report** 

orm page 1			OND No. 0025 00	2004
Form Approved Hirough 0 <del>3/</del> 31/2020		LEAVE BLANK-FOR PHS US	E ONLY	
Department of Health an	d Human Services Services	Type Activity	Number	
Grant App	lication	Review Group	Formerly	Title of Project: 81 characters
Do not exceed character leng	th restrictions indicated.	Council/Board (Month, Year)	Date Received	Must be the same as your LOL
1. TITLE OF PROJECT (Do not exceed 8	1 characters, including spaces	and punctuation.)		approved IACLIC or human IRB
<ol> <li>RESPONSE TO SPECIFIC REQUEST (If "Yes," state number and title)</li> </ol>	FOR APPLICATIONS OR PRO	OGRAM ANNOUNCEMENT OR SOLIC		protocol. The title should capture
Number: Title:				
3. PROGRAM DIRECTOR/PRINCIPAL IN	VESTIGATOR			the essence of project objectives
3a. NAME (Last, first, middle)		3b. DEGREE(S)	3h. eRA Commons User Name	
3c. POSITION TITLE		3d. MAILING ADDRESS (Street	t, city, state, zip code)	
3e. DEPARTMENT, SERVICE, LABORAT	DRY, OR EQUIVALENT			
3f. MAJOR SUBDIVISION				Human subjects and animal
3g. TELEPHONE AND FAX (Area code, n	umber and extension)	E-MAIL ADDRESS:		research: Yes or NO
TEL: FA	X:			If Yes: add correct Federal-wide
<ol> <li>HUMAN SUBJECTS RESEARCH</li> <li>No □ Yes</li> </ol>	4a. Research Exempt ☐ No	If "Yes," Exemption No.		assurance number for human
4b. Federal-Wide Assurance No.	4c. Clinical Trial	4d. NIH-defi	ned Phase III Clinical Trial	
		Ea Animal Walfara Assurance N	_ Yes	_ subjects research
6. DATES OF PROPOSED PERIOD OF	7. COSTS REQUE	STED FOR INITIAL 8. COST	S REQUESTED FOR PROPOSED	And animal welfare assurance N
From Through	7a. Direct Costs (\$)	7b. Total Costs (\$) 8a. Direct 0	Costs (\$) 8b. Total Costs (\$)	for animal research
9. APPLICANT ORGANIZATION		10. TYPE OF ORGANIZATION		
Name		Public: $\rightarrow$ Eederal	State Local	Detec of Bronecel
Address		Private: →	lonprofit	Dates of Proposal:
		For-profit: → ☐ General	Small Business	Initial: 02/01/22-06/30/22
			y and Economically Disadvantaged	Eull=\$50.000
				Dilat=  000
		DUNS NO.		FII01=923,000
12. ADMINISTRATIVE OFFICIAL TO BE N Name	IUTIFIED IF AWARD IS MADE	13. OFFICIAL SIGNING FOR AF	PPLICANT ORGANIZATION	Total:
Title		Title		Full: 02/02/22-06/30/24
Address		Address		= \$50 000+200 000= \$250 000
				$-\psi_{00},000;200,000-\psi_{20},000$
Tel·	EAY.	Tel·	EAX.	PIIOT: UZ/UZ/ZZ-U6/3U/Z3
E-Mail:	1 AA.	E-Mail:	FAA.	=\$25,000+50,000=\$75,000
14. APPLICANT ORGANIZATION CERTIFICATI	ON AND ACCEPTANCE: I certify urate to the best of my knowledge.	that SIGNATURE OF OFFICIAL NAM	MED IN 13. DATE	
accept the obligation to comply with Public Health is awarded as a result of this application. I am av statements or claims may subject me to criminal.	a Services terms and conditions if a vare that any false, fictitious, or frau civil, or administrative penalties.	grant dulent		
PHS 398 (Rev. 01/18)	Face	Page	Form Page	Please include signature

#### Form Page 2 Program Director/Principal Investigator (Last. First. Middle):

PROJECT SUMMARY (See instructions):

#### Please, fill this space. Do NOT give a separate attachment!

RELEVANCE (See instructions):

### Why should NIH fund it?

Organizational Name:				
DUNS:				
Street 1:		Street 2:		
City:		County:		State:
Province:	Country:		Zip/Postal 0	Code:
Project/Performance Site Co	ongressional Districts:			
Additional Project/Perform	nance Site Location			
Organizational Name:				
DUNS:				
Street 1:		Street 2:		
City:		County:		State:
Province:	Country:		Zip/Postal (	Code:

### Project Summary:

30 lines

### **Hypothesis-Driven Research**

- Concise presentation of the project.
- Include the project's broad, longterm objectives and specific aims
- Include a description of the research design and methods for achieving the stated goals
- Write in plain language, so even a non-scientist can understand the importance of the project

What are you going to do, why you are doing it, what do you hope to find?

### **Project Relevance:**

Maximum 3 sentences on the biomedical relevance of the project.

# **Code Words in Project Summary**

LONG TERM GOAL/S **CRITICAL NEED GAP IN KNOWLEDGE OBJECTIVE** RATIONALE **CENTRAL HYPOTHESIS** SPECIFIC AIMS IMPACT

**RELEVANCE:** 3 sentences on health relevance

### **NIH-Wide Strategic Plan**

Fiscal Years 2016-2020



Turning Discovery Into Health



Genetically similar viruses can cause widely disparate diseases through manipulation of innate immune pathways. This project uses mammalian reovirus, a powerful experimental model for studies of virus pathogenesis, to identify mechanisms for strain-specific differences in cellular responses to infection that influence organ-specific disease. As other pathogenic microbes employ similar strategies, this research program will uncover conserved mechanisms of infectious disease pathogenesis.

### **Table of Contents**

Program Director/Principal Investigator (Last, First, Middle):

The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

#### RESEARCH GRANT TABLE OF CONTENTS

		Pa	ge Numbers
Fa	ce Page		1
De an	scription, Project/Performance Sites, Senior/Key Personnel, Other Significant Contributors, d Human Embryonic Stem Cells		2
Та	ble of Contents		
De	tailed Budget for Initial Budget Period		
Bu	dget for Entire Proposed Period of Support		
Bu	dgets Pertaining to Consortium/Contractual Arrangements		
Bio	graphical Sketch – Program Director/Principal Investigator (Not to exceed five pages each)		
Ot	ner Biographical Sketches (Not to exceed five pages each – See instructions)		
Re	sources		
Ch	ecklist		
Re	search Plan		
1.	Introduction to Resubmission Application, if applicable, or Introduction to Revision Application, if applicable *		
2.	Specific Aims *		
3.	Research Strategy *		1
4.	Bibliography and References Cited/Progress Report Publication List		
5.	Vertebrate Animals		
6.	Select Agent Research		
7.	Multiple PD/PI Leadership Plan		
8.	Consortium/Contractual Arrangements		
9.	Letters of Support (e.g., Consultants)		
10.	Resource Sharing Plan(s)		
11.	Authentication of Key Biological and/or Chemical Resources		
12	PHS Human Subjects and Clinical Trials Information		
Ар	pendix (Two identical CDs.)		Check if Appendix is Included

Please, note that the **Bibliography (References)** are included after the Research Strategy and is not constrained by page limits.

\* Follow the page limits for these sections indicated in the application instructions, unless the Funding Opportunity Announcement specifies otherwise.

### Whose doing the study?

Program Director/Principal Investigator (Last, First, Middle):

SENIOR/KEY PERSONNEL. See instructions. Use continuation pages as needed to provide the required information in the format shown below. Start with Program Director(s)/Principal Investigator(s). List all other senior/key personnel in alphabetical order, last name first.

Name eRA Commons User Name Or	rganizatior
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## Chose Wisely.....

**Include NIH Biosketches** 

Key personnel: Ph.D./MD Pl Mentor Collaborator Post Doc

OTHER SIGNIFICANT CONTRIBUTORS Name

ORS Organization

Role on Project

Role on Project

Human Embryonic Stem Cells 🗌 No 🗌 Yes

If the proposed project involves human embryonic stem cells, list below the registration number of the specific cell line(s) from the following list: <u>https://grants.nih.gov/stem\_cells/registry/current.htm</u>. Use continuation pages as needed.

If a specific line cannot be referenced at this time, include a statement that one from the Registry will be used.

Cell Line

OMB No. 0925-0001 Form Page 2-continued Number the following pages consecutively throughout the application. Do not use suffixes such as 4a, 4b.

# **Biographical Sketch**

OMB No. 0925-0001 and 0925-0002 (Approved Through 02/28/2023) BIOGRAPHICAL SKETCH INSTRUCTIONS

https://grants.nih.gov/grants/forms/biosketch.htm

# NOTE: The Biographical Sketch may not exceed five pages.

Fill in the name of the senior/key person or other significant contributor in the "Name" field of the Biosketch Format Page.

#### eRA Commons User Name:

If the individual is registered in the <u>eRA Commons</u>, fill in the eRA Commons User Name in the "eRA Commons User Name" field of the Biosketch Format Page.

#### **Position Title:**

Fill in the position title of the senior/key person or other significant contributor in the "Position Title" field of the Biosketch Format Page.

#### **BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Hunt, Morgan Casey

eRA COMMONS USER NAME (credential, e.g., agency login): huntmc1

#### POSITION TITLE: Associate Professor of Psychology

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of California, Berkeley	BS	05/2003	Psychology
University of Vermont	PHD	05/2009	Experimental Psychology
University of California, Berkeley	Postdoctoral	08/2013	Public Health and Epidemiology

#### A. Personal Statement

I am an Associate Professor of Psychology, and my research is focused on neuropsychological changes associated with substance use disorders. I have a broad background in psychology, with specific training and expertise in ethnographic and survey research and secondary data analysis on psychological aspects of substance use disorders. As PI or co-Investigator on several university- and NIH-funded grants, I laid the groundwork for the proposed research by developing effective measures of disability, depression, and other psychosocial factors relevant to older people with substance use disorders, and by establishing strong ties with community providers that will make it possible to recruit and track participants over time as documented in the following publications. In addition, I successfully administered the projects (e.g. staffing, research protections, budget), collaborated with other researchers, and produced several peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among project members and of constructing a realistic research plan, timeline, and budget. The current application builds logically on my prior work. During 2015-2016, my career was disrupted due to family obligations. However, upon returning to the field, I immediately resumed my research projects and collaborations and successfully competed for NIH support. In summary, I have the expertise, leadership, training, expertise, and motivation necessary to successfully carry out the proposed research project.

Ongoing and recently completed projects that I would like to highlight include:

R01 DA942367 Hunt (PI) 09/01/16-08/31/21 Health trajectories and behavioral interventions among older people with substance use disorders

R01 MH922731 Merryle (PI), Role: co-investigator 12/15/17-11/30/22 Physical disability, depression, and substance use among older adults

#### A. Personal Statement

Briefly describe why you are well-suited for your role(s) in this project. Relevant factors: aspects of your training; your previous experimental work on this specific topic or related topics; your technical expertise; your collaborators or scientific environment; and/or your past performance in this or related fields, including ongoing and completed research projects from the past three years that you want to draw attention to (previously captured under Section D. Research Support).

Citations:

- 1. Merryle, R.J. & Hunt, M.C. (2015). Independent living, physical <u>disability</u> and substance use among older adults. Psychology and Aging, 23(4), 10-22.
- 2. Hunt, M.C., Jensen, J.L. & Crenshaw, W. (2018). Substance use and mental health among community-dwelling older adults. International Journal of Geriatric Psychiatry, 24(9), 1124-1135.
- Hunt, M.C., Wiechelt, S.A. & Merryle, R. (2019). Predicting the substance use treatment needs of an aging population. American Journal of Public Health, 45(2), 236-245. PMCID: PMC9162292
- 4. Merryle, R. & Hunt, M.C. (2020). Randomized clinical trial of cotinine in older people with nicotine use disorder. Age and Aging, 38(2), 9-23. PMCID: PMC9002364

#### B. Positions, Scientific Appointments, and Honors

#### **Positions and Scientific Appointments**

2021– Present 2020 – Present	Associate Professor, Department of Psychology, Washington University, St. Louis, MO Adjunct Professor, McGill University Department of Psychology, Montreal, Quebec,
2018 – Present 2015 – 2017 2014 – 2021 2014 – 2015	NIH Risk, Adult Substance Use Disorder Study Section, member Consultant, Coastal Psychological Services, San Francisco, CA Assistant Professor, Department of Psychology, Washington University, St. Louis, MO
2014 – 2013 2014 – Present 2013 – 2014 2011 – Present	Board of Advisors, Senior Services of Eastern Missouri Lecturer, Department of Psychology, Middlebury College, Middlebury, VT Associate Editor, Psychology and Aging
2009 – Present 2009 – Present 2009 – 2013 2006 – Present	Member, American Genatrics Society Member, Gerontological Society of America Fellow, Intramural Research Program, National Institute on Drug Abuse, Baltimore, MD Member, American Psychological Association
Honors 2020 2019 2018	Award for Best in Interdisciplinary Ethnography, International Ethnographic Society Excellence in Teaching, Washington University, St. Louis, MO Outstanding Young Faculty Award, Washington University, St. Louis, MO

You may cite up to four publications

or research products that highlight your experience and qualifications <u>for this</u> <u>project:</u> audio or video products; conference proceedings such as meeting abstracts, posters, or other presentations;

Patents;

data and research materials;

Databases;

educational aids or curricula;

instruments or equipment;

models; protocols;

and software or netware.

Use of hyperlinks and URLs to cite

these items is not allowed.

You are allowed to cite interim research products:

e.g. preprints of accepted articles, preregistered protocols

B. List in **reverse chronological order all current positions** and scientific appointments both domestic and foreign, including affiliations with foreign entities or governments. This includes titled academic, professional, or institutional appointments whether or not remuneration is received, and whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).

List any relevant academic and professional achievements and **honors**. Students, postdocs, and junior faculty should include scholarships, traineeships, fellowships, and development awards.

Clinicians should include information on any clinical licensures and specialty board certifications that they have achieved.

### C. Contribution to Science

**Format:** Briefly describe **up to five** of your most significant contributions to science. The description of each contribution should be no longer than one half page, including citations.

**Content:** Figures, tables, or graphics are not allowed.

For each contribution, indicate the following:

- the historical background that frames the scientific problem;
- the central finding(s);
- the influence of the finding(s) on the progress of science or the application of those finding(s) to health or technology;
- your specific role in the described work.

For each contribution, you may cite up to **four publications** or research products that are relevant to the contribution. If you are not the author of the product, indicate what your role or contribution was. Note that while you may mention manuscripts that have not yet been accepted for publication as part of your contribution, **you may cite only published papers to support each contribution**.

You may provide a URL to a full list of your published work. This URL must be to a Federal Government website (a .gov suffix). NIH recommends using <u>My Bibliography</u>. Providing a URL to a list of published work is not required.

### D. Additional Information: Research Support changed to Scholastic Performance



https://grants.nih.gov/grants/forms/othersupport.htm Due dates on/before January 24, 2022

+OMB No. 0925-0001 (Rev. 03/2020 Approved Through 02/28/2023)

#### For New and Renewal Applications – DO NOT SUBMIT UNLESS REQUESTED

#### PHS 398 OTHER SUPPORT

Provide active and pending support for all senior/key personnel. Other Support includes all financial resources, whether federal, non-federal, commercial or institutional, available in direct support of an individual's research endeavors, including but not limited to research grants, cooperative agreements, contracts, and/or institutional awards. Training awards, prizes, or gifts do not need to be included.

There is no "form page" for reporting Other Support. Information on Other Support should be provided in the format shown below.

For information pertaining to the use of and policy for other support, see <u>NIH Grants Policy Statement, Section 2.5.1: Just-in-Time Procedures</u>. Neither the application under consideration nor the current PHS award for this project should be listed as Other Support.

Effort devoted to projects must be measured using "person months." NIH and other PHS agencies use the concept of "person months" as a metric for determining percent of effort. For more information about calculating person months, see NIH's Frequently Asked Questions on Person Months.

Format

NAME OF INDIVIDUAL ACTIVE/PENDING		
Project Number (Contact Principal Investigator) Source Title of Project <i>(or Subproject)</i>	Dates of Approved/Proposed Project Annual Direct Costs	Person Months (Cal/Academic/ Summer)
The major goals of this project are		
OVERLAP (summarized for each individual)		

#### For New and Renewal Applications – DO NOT SUBMIT UNLESS REQUESTED PHS 398 OTHER SUPPORT Other support includes all resources made There is no "form page" for reporting Other Support. Information on Oth available to researchers or senior key provided in the format shown below. personnel in support of and/or related to all of their research endeavors, regardless of \*Name of Individual: Commons ID: whether or not they have monetary value and regardless of whether they are based Other Support – Project/Proposal at the institution the researcher identifies for \*Title: the current grant. Major Goals: \*Status of Support: This includes: resources and/or financial Project Number: support from all foreign and domestic Name of PD/PI: entities that are available to the researcher. \*Source of Support: This includes, but is not limited to, financial \*Primary Place of Performance: support for laboratory personnel, and Project/Proposal Start and End Date: (MM/YYYY) (if available): provision of high-value materials that are \* Total Award Amount (including Indirect Costs): not freely available (e.g., biologics, \* Person Months (Calendar/Academic/Summer) per budget period. chemicals, model systems, technology, Year (YYYY) Person Months (##.##) etc.). Institutional resources, such as core 1. [enter year 1] facilities or shared equipment that are made 2. [enter year 2] 3. [enter year 3] broadly available, should not be included in 4. [enter year 4] Other Support, but rather listed under [enter year 5]

Facilities and Other Resources.

Name of Individual: Commons ID:

#### IN-KIND

\*Summary of In-Kind Contribution:

\*Status of Support:

\*Primary Place of Performance:

Project/Proposal Start and End Date (MM/YYYY) (if available):

\*Person Months (Calendar/Academic/Summer) per budget period

Year (YYYY)	Person Months (##.##)
1[enter year 1]	
2. [enter year 2]	
3. [enter year 3]	
4. [enter year 4]	
5. [enter vear 5]	

\*Estimated Dollar Value of In-Kind Information:

\*Overlap (summarized for each individual):

If in-kind contributions are intended for use on the project being **proposed** to NIH in this application, the information must be included as part of the Facilities and Other Resources or Equipment section of the application and need not be replicated on this form. In-kind contributions not intended for use on the project/proposal being proposed in this application must be reported below. If the time commitment or dollar value is not readily ascertainable, reasonable estimates should be provided.

I, PD/PI or other senior/key personnel, certify that the statements herein are true, complete and accurate to the best of my knowledge, and accept the obligation to comply with Public Health Services terms and conditions if a grant is awarded as a result of this application. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties.

Date: \_\_\_\_\_

## **Scored Review Criteria (1-9) INVESTIGATORS**

- Are the PD(s)/PI(s), collaborators, and other researchers properly trained and well suited to the project?
- Are the collaborators essential for the successful completion of the proposed aims?
- If Early Stage Investigators (≤10 yrs from Ph.D.) or New (No R01) Investigators, or in the early stages of independent careers, do they have appropriate experience and training?
- Do early/new investigators have a tenure track or equivalent position with a firm institutional commitment on space, salary, startup funds etc.
- If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)?
- Does the mentor have the adequate expertise and commitment to mentor the PI?
- Is the Training Plan well developed?

# Common Problems with reviewers concerning the investigators

- No demonstration of expertise or publications in the approach section.
- Low productivity, few recent or few primary author papers.
- Needed collaborators not recruited; letters from collaborators missing.
- The collaborator does not complement the research proposed.

### **Mentors:**

- Does the mentor have publications and demonstrated expertise in the field?
- Is the mentor committed to the professional development of the applicant?



### **Mentor Expectations**

- Assist with the outline of an individual development plan (IDP) and ensure that the investigator adheres to the guidelines of the IDP and the INBRE expectations.
- Provide guidance to Developmental project investigators in the logical flow of experiment and hypothesis testing.
- Advise Developmental project investigators on specific deadlines for experimental protocols.
- Advise Developmental project investigators in developing strategies and deadlines for publications.
- Advise Developmental project investigators in the development of specific aims for grant proposals and set specific deadlines for each section of a grant proposal.
- Advise Developmental project investigators with summaries of reviewer critiques from unfunded/unscored applications on strategies for resubmission. Assist with generating the necessary preliminary data to improve resubmissions.
- Serve as an initial reviewer of proposals planned for submission.
- Assist Developmental project investigators in the evaluation of candidate technical staff and research fellows.
- Provide guidance on mentoring of the Developmental project investigator's fellows and students.
- Act as an advocate for the Developmental project investigators with administration and ensure they have "protected time" for research and career development.
- Train Developmental project investigators on the preparation of presentations for national meetings.
- Facilitate access to successful senior investigators through introductions.
- Assist with evaluations from the external evaluator team (EET) and external advisory committee.
- Mentor participation will also be evaluated by the EET, the RC, PC, and PI from the biannual progress reports and questionnaires to the Developmental project investigators.

# **SPECIFIC AIMS**

One Page (not included in 6 or 12 page limit)

- The single most important section in the grant
  - It's the master plan for the rest of the proposal
  - You engage or lose the Reviewer on this page
- It's the most difficult section to write
  - The logic of each aim must be compelling
  - The answers must be important to the field
- Write Aims that you are excited about!

# **Specific Aims**

- Provides an overview of the details tells what your proposal is about, and how you will get there
  - start with 1 2 paragraph general overview
  - then list AIMS, each clearly defined
  - end with a brief statement of what you will learn if successful
- The reader must finish this section convinced that the proposed research is significant <u>and</u> that you have a feasible approach
- The aims should be clearly and concisely stated; many also include sub-aims
- Typically 2 4 related aims. Later aims should NOT depend on the success of previous aims

# **Specific Aims**

- Whenever possible test a hypothesis in the specific aim title
  - You want the Reviewer to know that your work is hypothesis driven
  - Don't make the Reviewer work to figure out what the hypothesis is
- The goal of the aim should be to understand mechanism – even if the experiments are largely descriptive
- 1-2 Specific Aims for a 2-year grant each aim is a manuscript, or is a significant part of a publication
- The Specific Aims should be detailed but far reaching the Aims should not be a list of experiments

# **Specific Aims: Dos**

- Write your Aims early some may fall apart as you design a plan to test them or discuss them with colleagues.
- Try to limit this section to one page it's a roadmap to the rest of the proposal and it must include the logic behind your aims.
- Don't assume your Reviewer is an expert in your particular area so write Aims for a non-expert.
- Used to be you couldn't propose OMICs experiments: we love OMICS!

# **Specific Aims: Don'ts**

- Don't state a hypothesis that you cannot actually test with the experiments you are proposing.
- Avoid using phrases like: To correlate... To describe... To develop; these help get your grant pegged as "too descriptive".
- Avoid wishy-washy, passive tense, or flowery language instead write your aims in active form with strong meaningful verbs.

# APPROACH Significance and Innovation

- 0.5-1 pages SIGNIFICANCE
  - Should lead the reader to each question or hypothesis that you're testing in each aim
  - State this explicitly
  - This section must explain why the Study Section should fund your proposal rather than the next one

What is the "value added" to your field if you' re able to do the work?

### INNOVATION

- Bullets, why is your work different?

# **Scored Review Criteria 1-9: Significance**

- Does the project address an important health problem or a critical barrier to progress in the field?
- If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

### Common Problems with Significance and Innovation

- ✓ Not significant or exciting or new research
- ✓ Lack of compelling rationale for experiments
- ✓ Incremental or low impact research
- ✓ Weak or little biological, biomedical, or behavioral relevance

# **Scored Review Criteria: 1-9**



### Innovation:

- Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?
- Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?
- Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

# Criteria for scoring the approach section

- Four areas deemed important for enhancing rigor and transparency:
- 1) Scientific premise of the proposed research (Significance)
- 2) Scientific rigor: Rigorous experimental design for robust and unbiased results (Research Strategy)
- **3) Consideration of relevant biological variables** (Research Strategy)
- 4) Authentication of biological resources and chemical resources (Attachment)

# **1. Scientific Premise**

**Premise**: A previous statement or proposition from which another is inferred or follows as a conclusion.

### The scientific premise of the proposed research

In the *Significance section of your Research Strategy* - Describe the scientific premise for the proposed project, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of your application.

The **scientific premise** for an application is the research that is used to form the basis for the proposed research question(s). NIH expects applicants to describe the general strengths and weaknesses of the prior research being cited by the applicant as crucial to support the application. It is expected that this consideration of general strengths and weaknesses could include attention to the rigor of the previous experimental designs, as well as the incorporation of relevant biological variables and authentication of key resources.

# **Preliminary Studies**

(can be in Significance or in Research Strategy)

- In order of Specific Aims
- You don't have to know the outcome of each experiment before the grant is submitted
- You DO have to:
  - Show that you can perform all of the necessary techniques and methods (Letters of Collaboration)
  - You are committed to this area of research and are off and running
  - New techniques are feasible, reliable and yield interpretable data
  - Show that the preliminary data has scientific rigor

# **RESEARCH STRATEGY**

Specific Aims are fleshed out with the actual experimental approach

Rationale (1 paragraph) -- logic
Experiments - how? Abbreviated Methods CONTROLS (positive and negative)
Analysis and Interpretation - what will results mean?
Pitfalls and Alternative Approaches

Your research strategy needs to answer 4 essential questions:

- What do you intend to do?
- Why is the work important?
- What has already been done?
- How are you going to do the work?

### **Scored Review Criteria: 1-9**



### Approach

- Are the overall strategy, methodology, and analyses well reasoned and appropriate to accomplish the specific aims of the project?
- Are potential problems, alternative strategies, and benchmarks for success presented?
- If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
- How well the scientific rationale supports the project and its feasibility as demonstrated by a critical review and analysis of the literature, preliminary data, and/or logical reasoning.
- How well the hypotheses or objectives, aims, experimental design, methods, and analyses are developed.
- If the project involves Human Subjects Research, are the plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?
#### Approach: page 133: SF424 guidelines:

I.Describe the **overall strategy**, **methodology**, and analyses to be used to accomplish the specific aims of the project. Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Unless addressed separately in Item 15 (Resource Sharing Plan), include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.

**II.** Discuss **potential problems, alternative strategies**, and benchmarks for success anticipated to achieve the aims. If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.

#### Approach: page 133: SF424 guidelines:

**III.** Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.

**IV.** If your study(s) involves **human subjects**, you are expected to explain how relevant biological variables are important to the proposed experimental design and analyses.

The sections on the *Inclusion of Women and Minorities* and *Inclusion of Children* can be used to expand your discussion on inclusion and justify the proposed proportions of individuals (suc h as males and females) in the sample. *Please refer to NOT-OD-15-102 for further consideration of NIH expectations about sex as a biological variable.* 

### 2. Scientific Rigor

# Rigorous experimental design for robust and unbiased results: Still within the 6 or 12 page limit

o **Scientific rigor** is the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results. This includes full transparency in reporting experimental details so that others may reproduce and extend the findings.

#### **Criteria for Scientific Rigor:**

- Sample size, controls, repetition, statistical power: strength and weakness of experimental design, attention to rigor, the literature cited should be rigorously conducted.
- Address the rigor of the published and preliminary data and in the literature you cite. Is there a strong scientific premise for the research?
- How are you going to address full transparency in experimental details so others can reproduce your results.
- How will you report your results?
- Are your proposed experimental methods robust and **unbiased**?
- Quality of experimental design, statistical analysis, age, weight, sex. randomization, blinding, statistical methods, sample size estimation, appropriate replicates, scientific method, etc.

### 3. Consideration of relevant biological variables

**Biological variables**, such as sex, age, weight, and underlying health conditions, are often critical factors affecting health or disease. In particular, sex is a biological variable that is frequently ignored in animal study designs and analyses, leading to an incomplete understanding of potential sex-based differences in basic biological function, disease processes and treatment response.

o NIH expects that sex as a biological variable will be factored into research designs, analyses, and reporting in vertebrate animal and human studies. Strong justification from the scientific literature, preliminary data or other relevant considerations must be provided for applications proposing to study only one sex.

http://orwh.od.nih.gov

# 4. Authentication of key biological and/or chemical resources

*Key biological and/or chemical resources* include, but are not limited to, cell lines, specialty chemicals, antibodies and other biologics. Key biological and/or chemical resources:

- 1. may differ from laboratory to laboratory or over time
- 2. may have qualities and/or qualifications that could influence the data
- 3. are integral to the proposed research
- 4. are not limited to resources generated with NIH funds

Standard laboratory reagents (e.g. buffers) that are not expected to vary do not need to be included in the plan.

Briefly describe how you plan to authenticate resources. How you will ensure the identity and validity of key biological and/or chemical resources used in the proposed studies.

The quality of resources used to conduct research is critical to the ability to reproduce the results. Each investigator will have to determine which resources used in their research fit these criteria and are therefore key to the proposed research.

# 10 questions you should answer in each specific aims section of the research strategy

- 1. What is the question/aim/hypothesis?
- 2. Why is the question important and necessary to answer?
- 3. How will your research question if answered overcome hurdles or challenges and impact the field?
- 4. How are you going to answer this significant and important question; what approaches and why?
- 5. What could go wrong and what might you do instead and/or in addition?

10 questions you should answer in each specific aims section, contd.

- 6. How reliable, reproducible, rigorous, and interpretable might the potential data/results be?
- 7. How might the potential data/results be novel and significant and impact the scientific field?
- 8. Would anyone care about the results?
- 9. How would the potential data results answer your question?
- 10. Depending on potential outcome/results what would you do next?

# Common problems with experimental approach

- Lack of clear strong hypothesis or questions
- Too ambitious too much work proposed
- Unfocused or unrelated aims, unclear goals, not integrated
- Limited or narrow aims
- Too much unnecessary experimental details
- Not enough detail on approaches being developed
- Not enough preliminary data to show rationale or significance of project
- Unconvincing preliminary data
- Lack of appropriate controls
- Not directly testing hypothesis
- Correlative or descriptive data
- Experiments not directed towards mechanisms
- No discussion of alternative models or hypotheses
- No discussion of potential pitfalls
- No discussion of data interpretation or future directions

## **Other Attachments**

(Pages 161-162 SF424 Guide)

- Human Subjects Protection of human subjects, Inclusion of women and minorities, Inclusion of children
- Vertebrate Animals
- Select agents research
- Multiple PI/PD Leadership plan
- Consortium/contractual arrangements
- Letters of support
- Resource sharing plan
- Authentication of Key Resources Plan

### **Human Subjects Research**

#### https://humansubjects.nih.gov/nih-human-subjects-policies-guidance

View Burden Statement P This report format s				PHS Inclusion Enrollment Report should NOT be used for collecting data from study participants.				OMB Nu	OMB Number: 0925-0001 and 0925-00 Expiration Date: 10/31/20		
*Study Title (must be unique):											
* Delayed Onset Study?	? Yes	No									
If study is not	delayed onset,	the following s	elections are r	equired:							
	Enrollment Ty	/pe		Planned	Cumulative (A	ctual)					
	Using an Exis	ting Dataset or	Resource	Yes	No						
	Enrollment Lo	ocation		Domestic	Foreign						
	Clinical Trial			Yes No NIH-Defined Phase III Cli			e III Clinical Tria	linical Trial Yes No			
Comments:											
	Ethnic Categories										
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American Indian/ Alaska Native	0	0.	0	0	0.	0	0	0	0	0
Asian	0	0	0	0	0	0	0	0	0	0
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	0	0	0
Black or African American	0	0	0	0	0	0	0	0	0	0
White	0	0	0	0	0	0	0	0	0	0
More than One Race	0	0	0	0	0	0	0	0	0	0
Unknown or Not Reported	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

#### Report 1 of 1

< Previous Report

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Next Report >

To ensure proper performance, please save frequently.

# **Vertebrate Animals**

#### https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-006.html

#### **Updated VAS Requirements**

- 1. **Description of Procedures**. Provide a concise description of the proposed procedures to be used that involve vertebrate animals in the work outlined in the application or proposal. Identify the species, strains, ages, sex and total number of animals by species to be used in the proposed work.
- 2. **Justifications.** Provide justification that the species are appropriate for the proposed research.
- 3. **Minimization of Pain and Distress.** Describe the interventions including analgesia, anesthesia, sedation, palliative care and humane endpoints to minimize discomfort, distress, pain and injury.
- 4. **Euthanasia.** State whether the method of euthanasia is consistent with the recommendations of the American Veterinary Medical Association (AVMA) Guidelines for the Euthanasia of Animals. If not, describe the method and provide a scientific justification.

### **Unscored Review Criteria**

#### Environment

• Will the scientific environment in which the work will be done contribute to the probability of success?

Do not assume! Give details in the Facilities and Resources

 Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?

include letter of institutional commitment for release time and position: 50% for full projects and 25% for pilot projects

- Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?
- Include strong letters of commitment from mentors and collaborators!

## FORMATTING

# Text in PDF attachments must follow these minimum requirements: *Don't scan- convert to PDF file!*

- Font size: must be 11 points or larger (smaller text in figures, graphs, diagrams and charts is acceptable as long as it is legible when the page is viewed at 100%).
- Type density: must be no more than 15 characters per linear inch (including characters and spaces).
- Line spacing: must be no more than six lines per vertical inch.
- Text Color: must be black (color text in figures, graphs, diagrams, charts, tables, footnotes and headings is acceptable as long as it is legible).
- Since some PDF converters may reduce font size, it is important to confirm that the final PDF document complies with the font requirements.
- The following fonts are recommended, although other fonts (both serif and non-serif) are acceptable if they meet the above requirements.
- Arial, Garamond, Georgia, Helvetica, Palatino Linotype, Times New Roman, Verdana
- Legibility is of paramount importance. Applications that include PDF attachments that do not conform to the minimum requirements listed above may be withdrawn from consideration.

# **Other Important Issues**

Don't annoy the reviewer!



- Page requirements: 6 (pilot) or 12 (full) pages
- Font size and line spacing
- SPACING OF TEXT SECTIONS
- Embed figures into the text. Include a brief, clear legend.
- Figure must be absolutely clear/visible to the Reviewer.
- Learn how to use MS Word
- Spelling and grammar ZERO TOLERANCE for sloppy mistakes.

## Budget

Program Director/Principal Investigator (Last, First, Middle):

DETAILED BUDGET FOR INITIAL BUDGET PERIOD FROM DIRECT COSTS ONLY						٢	THROUGH		
List PERSONNEL (Applicant organiz Use Cal, Acad, or Summer to Enter M Enter Dollar Amounts Requested (or	ation only) Nonths Devoted to hit cents) for Salary	Project Requeste	ed and Frir	ige Benefi	ls		1		
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CONCULTANT COSTS	SUBTUTALS				•				
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TRAVEL									
INPATIENT CARE COSTS									
OUTPATIENT CARE COSTS ALTERATIONS AND RENOVATION	S (Itemize by cate	gory)							
OTHER EXPENSES (Itemize by cat	egory)								
CONSORTIUM/CONTRACTUAL CO	STS					DIRE	CT COSTS		
SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD (Item 7a, Face Page)							\$		
CONSORTIUM/CONTRACTUAL CO	STS			FAG	CILITIES AND	ADMINISTRATI	VE COSTS		
TOTAL DIRECT COSTS FOR	R INITIAL BUD	GET PE	RIOD					\$	
PHS 398 (Rev. 6/09)		PHS 398 (Rev. 6/09) Page							Form Page

Program Director/Principal Investigator (Last, First, Middle):

BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD DIRECT COSTS ONLY								
BUDGET CATEGORY TOTALS	INITIAL BUDGET PERIOD (from Form Page 4)	2nd ADDITIONAL YEAR OF SUPPORT REQUESTED	3rd ADDITIONAL YEAR OF SUPPORT REQUESTED	4th ADDITIONAL YEAR OF SUPPORT REQUESTED	5th ADDITIONAL YEAR OF SUPPORT REQUESTED			
PERSONNEL: Salary and fringe benefits. Applicant organization only.								
CONSULTANT COSTS								
EQUIPMENT								
SUPPLIES								
TRAVEL								
INPATIENT CARE COSTS								
OUTPATIENT CARE COSTS								
ALTERATIONS AND RENOVATIONS								
OTHER EXPENSES								
DIRECT CONSORTIUM/ CONTRACTUAL COSTS								
SUBTOTAL DIRECT COSTS (Sum = Item 8a, Face Page)	ĺ							
F&A CONSORTIUM/ CONTRACTUAL COSTS								
TOTAL DIRECT COSTS								
			-					

TOTAL DIRECT COSTS FOR ENTIRE PROPOSED PROJECT PERIOD

JUSTIFICATION. Follow the budget justification instructions exactly. Use continuation pages as needed.

Full: \$250,000 Pilot: \$75,000

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	lication is being submitted to the P	HS for the first ti	me l						
			ine.)						
(This application replaces a	uon number: a prior unfunded version of a new. r	enewal. or revisi	on application.)						
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REVISION to grant number:									
(This application is for addi	tional funds to supplement a curren	ntly funded grant	.)						
CHANGE of program director	or/principal investigator.								
Name of former program d	irector/principal investigator:								
CHANGE of Grantee Institu	tion. Name of former institution:								
FOREIGN application	Domestic Grant with foreign invo	olvement Lis	st Country(ies) /olved:						
INVENTIONS AND PATENTS (F	Renewal appl. only) 🗌 No	Yes							
		lf "Yes,"	Previously reported	Not previously re	ported				
1. PROGRAM INCOME (See in	structions.)			,	•				
All applications must indicate whether program income is anticipated during the period(s) for which grant support is request. If program income is anticipated, use the format below to reflect the amount and source(s).									
Budget Period	Anticipated Amoun	it		Source(s)					
2. ASSURANCES/CERTIFICAT	IONS (See instructions.)								
listed in the application instruction	age, the authorized organizational r	f individual assur	ances/certifications a	are provided in the <u>NIH</u>	Grants Policy				
Statement, Section 4: Public Polic provide an explanation and place	cy Requirements, Objectives and C it after this page.	other Appropriation	on Mandates. If unab	le to certify compliance	e, where applicable,				
3. FACILITIES AND ADMINSTR	ATIVE COSTS (F&A)/ INDIRECT	COSTS. See sp	ecific instructions.						
HHS Agreement dated:			No Faciliti	es And Administrative	Costs Requested.				
HHS Agreement being nego	tiated with			Regional Office.					
No HHS Agreement, but rate	e established with			Date					
CALCULATION* (The entire arant application, including the Checklist, will be reproduced and provided to peer reviewers as confidential information.)									
a. Initial budget period:	Amount of base \$	x Rate ap	plied	% = F&A costs \$					
b. 02 year	Amount of base \$	x Rate ap	plied	% = F&A costs \$					
c. 03 year	Amount of base \$	x Rate ap	plied	% = F&A costs \$					
d. 04 year	Amount of base \$	x Rate ap	plied	% = F&A costs \$					
e. 05 year	Amount of base \$	x Rate ap	olied	% = F&A costs \$					
Enter Rate above as a decimal (e.g., 0.25 for 25%, 0.495 for 49.5%) TOTAL F&A Costs \$									
*Check appropriate box(es):			_						
Salary and wages base	Modified total direct	cost base	c	Other base <i>(Explain)</i>					
Off-site, other special rate, of	or more than one rate involved (Ex	plain)							

Explanation (Attach separate sheet, if necessary.):

Please, include a **checklist** at the end of your application.

Your institution must have a **FHA agreement** with the Department of Human Health.

The indirect costs (FHA costs) have to be included in the proposal.

OMB No. 0925-0001 Checklist Form Page



### Your INBRE DRPP Award

- Please, note that prior to starting your project, you are required to contact the PR-INBRE Bioinformatics Resource Core at help@hpcf.upr.edu, to receive their advice and guidance in designing and analyzing your experiments.
- Please, include this award in your biosketch as a subproject from the NIGMS/INBRE award P20 GM103475-19, Project Title: "Advancing Competitive Biomedical Research in Puerto Rico", PI: Jose Rodriguez-Medina, Ph.D.
- You are the **PI of a subproject** under this award, and should list your name and title of sub project following this information.
- Any publications resulting from the use of these funds should acknowledge the PR-INBRE Program with the following statements: "Research reported in this publication was supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under grant number P20 GM103475-19. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

# **DRPP** Activities



Welcome to the PRINBRE Family!

- Monthly peer-review meetings.
- Review of grant applications and manuscripts.
- Annual PRINBRE retreat and EAC meeting.
- Workshops, mentoring
- Annual progress reports