

## Botanical Dietary Supplements Research Center 2019-20 Pilot Project Program

Currently Accepting: Letters of Intent

Deadline: July 8, 2019

Funding Entity: Botanical Dietary Supplements Research Center, Pennington Biomedical Research Center

Award: up to \$35,000

Contact: [anne.gooch@pbrc.edu](mailto:anne.gooch@pbrc.edu)

The major objective of this program is to provide research support to test innovative hypotheses involving botanicals (bioactive extracts) and their effects on metabolic pathways leading to obesity, insulin resistance, and type 2 diabetes or their co-morbidities. This request for proposals seeks pilot projects that relate to the theme of the Botanical Dietary Supplements Research Center to promote human health by focusing on the mechanisms of action by which botanicals or botanically-derived bioactive compounds promote resilience to developing obesity-related metabolic syndrome and type 2 diabetes. Projects that emphasize mechanistic approaches that move beyond descriptive relationships to exploring functional consequences of botanical action are strongly encouraged. Areas of interest include botanical regulation of exosomal noncoding RNAs, botanical-gene interactions, redox biology, and gut-brain interactions. We also encourage projects that use single cell sequencing (scRNA-seq) to explore botanically-mediated effects of interest as well as projects that examine sex-related differences in response to botanicals. It is hoped that a Pilot Project Award will generate enough preliminary data for the investigator to obtain research funding by conventional mechanisms (e.g., R21 or R01). The expectation is that the project will be completed within the budget period of the award.

### Deadlines:

**Letter of Intent:** July 8, 2019

**Applications:** August 12, 2019

**Notification:** September 13, 2019

**Note:** All letters and grant applications should be submitted to: [anne.gooch@pbrc.edu](mailto:anne.gooch@pbrc.edu)

**THE BOTANICAL DIETARY SUPPLEMENTS RESEARCH CENTER** will fund grants (up to \$35,000) in the following research areas:

1. Studies of the role of botanicals as regulators of signaling, genetic, or epigenetic events associated with preventing the development of obesity-related metabolic syndrome and type 2 diabetes, or co-morbidities associated with these conditions (i.e. hypertension, dyslipidemia, inflammation).
2. Novel technologies to interrogate mechanisms of action of botanicals.
3. Evaluation of botanicals or botanical bioactive compounds in evolving and understudied areas in metabolism, such as exosomal composition (non-coding RNA or proteins) or cellular heterogeneity is strongly encouraged.
4. Studies on botanical-drug interactions. Assessment of synergy and/or antagonism of combinatorial use of various botanical extracts or bioactive constituents in regulating insulin signaling and/or insulin secretion.
5. Absorption and metabolism of botanical bioactive compounds.
6. Impact of botanicals on brain-gut interactions.
7. Identification of targets (e.g., molecular, cellular, organ) and mechanisms of action of botanicals related to health maintenance and prevention.

Multi-disciplinary projects are strongly encouraged. In silico, in vitro, and preclinical in vivo models may be used. Preference will be given to botanicals for which there is a strong premise that the botanical affects metabolic functions. Several of these botanicals have been evaluated by the BDSRC and are available for study (*Artemisia dracuncululus*, *Artemisia scoparia*, *Momordica charantia*, *Moringa oleifera*, *Trigonella foenum-graecum*), but other botanicals having known effects on metabolism are also appropriate.

**Who is eligible?** 1) Full time faculty; and 2) Junior investigators at all institutions that are part of the Botanical Dietary Supplements Research Center (Pennington Biomedical Research Center, Rutgers University) or part of LSU (i.e. all components of LSU A&M, LSU Ag Center, LSUHSC-NO, LSUHSC-S). Projects will be considered from outside institutions in the state provided a memorandum of understanding can be put in place prior to the start of the project and only after NIH programmatic approval.

Independent junior investigators who do not have current or previous NIH (or other federal agencies) research support (excluding career development awards) and who wish to establish their own independent research program are encouraged to apply. Postdoctoral researchers (including current or past Botanical T-32 fellows) are ineligible.

Established investigators who have not been directly involved in nutrition or bioactive compound related research, but who wish to enter the field or who wish to initiate a new research direction within the botanical field are encouraged to apply.

Applicants are strongly encouraged to consult with Botanical Dietary Supplements Research Center investigators regarding botanical use and integrity, statistical approach, and genetic/genomic support before they submit their LOI.

There is no citizenship requirement for recipients, but eligible visiting scientists must have a long-term collaborative relationship with Pennington Biomedical. Applicants must hold a PhD, MD, or equivalent degree.

### Deadline and Review Process:

1. Interested investigators are asked to submit a single page letter of intent for the 2018-2019 BDSRC Pilot Project Program Award by **July 8, 2019**. This letter should include a statement of the hypothesis, a brief paragraph of background information, a short description of the experimental design and proposed methods, and indication of eligibility criterion (see criteria above). A required component of the letter is information about the botanical extract/product to be tested, including information on sourcing and known or reported characterization. From these letters of intent, applicants will be selected to submit a 5-page grant proposal.
2. Full applications of the projects selected from the letters of intent need to be submitted for review by **August 12, 2019**. All applications will undergo comprehensive peer review for scientific merit, originality, relevance of the work to botanicals, and the potential for the project to generate data for a successful peer-reviewed grant application.
3. Awards will be announced, pending NIH approval, by **September 13, 2019**.