



REQUEST FOR INDIVIDUAL RESEARCH PROJECT PRE-PROPOSALS

Nebraska Center for Integrative Nutrition and Metabolic Processes

Purpose of this Request

The University of Nebraska-Lincoln (UNL), in partnership with the University of Nebraska Medical Center (UNMC), will submit an application to NIH's National Center for Research Resources during early 2011 to establish a Center of Biomedical Research Excellence (COBRE) in Integrative Nutrition and Metabolic Processes. The COBRE program announcement is available at <http://grants.nih.gov/grants/guide/pa-files/PAR-09-079.html>.

Among other capacity-building activities, NIH COBRE funding will support up to five junior investigators in a mentored research program aimed at transitioning these faculty to biomedical research independence. To that end, individual research projects designed by junior investigators (see the Eligibility section below) are solicited in the following areas:

- Basic mechanisms of disease promotion and prevention by dietary factors, including fats and oils
- Enhancement of the nutritional quality of the food supply
- Development of longitudinal studies that translate basic science findings into human populations and community-based interventions that enhance healthy diets and healthy weight

The individual research projects included in the full COBRE application will be selected from those proposals submitted in response to this request for pre-proposals.

Center Goals and Overview

Acquired metabolic diseases, including heart disease, stroke, some cancers, type 2 diabetes, and various inflammatory diseases, such as inflammatory bowel disease (i.e., IBD and Crohn's) and asthma, are major causes of morbidity and mortality in the U.S. and around the world. There is substantial epidemiological and basic research evidence that diet is a causative factor in the development of these diseases, which are also strongly associated with overweight and obesity. These diet-related conditions contribute to a reduced quality of life, premature death, substantial medical costs, and lost productivity. The major health agencies have targeted three areas for understanding and preventing these acquired metabolic diseases: nutrition, genetics, and behavior.

The Nebraska Center for Integrative Nutrition and Metabolic Processes will employ and expand the expertise of the state of Nebraska and its biomedical research universities, UNL and UNMC, to address the current health crisis through foods. The Center will include a consortium of biomedical scientists, crop engineers, food producers, and population health scientists to provide synergistic solutions directed at preventing obesity associated pathologies. For this consortium, food oils will initially be targeted because they are essential nutrients, provide an important source of calories, and contain specific classes of fatty acids that are strongly correlated with either disease promotion (e.g., saturated and *trans* fatty acids) or prevention and resolution (e.g., omega 3 (ω 3) long chain polyunsaturated fatty acids).

Eligibility

Applicants must be a junior investigator, defined as (1) an individual who does not have or has not previously had an external, peer-reviewed Research Project Grant (RPG) or Program Project Grant (PPG) from either a Federal or non-Federal source that names that investigator as the PI or (2) an established investigator who is making a significant change to his/her career. Senior, funded investigators who are not making a significant career change cannot be proposed as leaders for individual research projects. Preference will be given to tenure-track assistant professors.

Instructions for Proposal Preparation

The individual research project pre-proposal consists of two parts:

1. A two-page project description, including title, rationale, hypothesis to be addressed, and specific aims (along with a brief description of the methods proposed to address each aim). Junior investigators should include the names of at least two potential senior faculty mentors, from UNL or UNMC. The project description also should describe how participation in the proposed Center will facilitate the junior investigator's long-term career goals and why the junior investigator is an ideal candidate for the Center's mentored research program.

The project description should not exceed two pages in length using margins of at least 0.5" and 11 pt Arial font.

2. A complete academic curriculum vitae (CV).

Proposal Submission and Deadline

Proposals must be submitted electronically as a single PDF file to unlresearch@unl.edu by 4:00 p.m. on Tuesday, August 31, 2010. **Late proposals will not be accepted.**

Proposal Review and Selection Process

All proposals will be read and assigned a priority score by a review committee. Projects will be selected based on a clear relationship to one or more NIH program priorities in relationship to disease and nutrition, as detailed above, and the potential to generate new R01 funding. Final decisions regarding junior investigator participation will be made by the COBRE principal investigators and the UNL and UNMC Vice Chancellors for Research.

COBRE Proposal Submission Timeline

August 31, 2010: Individual research project pre-proposal submission

September 15, 2010: Notification of individual projects selected for participation

December 15, 2010: Complete draft of individual projects due

January 15, 2010: Internal review of the COBRE application

March 15, 2010: Completion and submission of COBRE application to NIH

Additional Information

For additional information regarding the Nebraska Center for Integrative Nutrition and Metabolic Processes or the individual research project pre-proposal process, contact Dr. Concetta DiRusso (cdirusso2@unl.edu or 402.472.6504) or Dr. Terry Huang (tthuang@unmc.edu or 402.552.6837).

