

Peanut and Mycotoxin Innovation Lab - University of Georgia

Request for Proposals

The Peanut and Mycotoxin Innovation Lab (PMIL) is one of ten Innovation Labs funded by USAID under the Feed the Future (FtF) Initiative, <http://www.feedthefuture.gov/>. The Feed the Future initiative invests in research to catalyze broad-based agriculture-led economic growth in developing countries, with the specific goals of reducing rural poverty and hunger.

As the Management Entity for PMIL, the University of Georgia invites research proposals addressing (1) those factors that inhibit enhancement of the peanut value chain in developing countries, (2) genomics and breeding programs that produce peanut cultivars or breeding techniques which facilitate peanut production in developing countries, and (3) feasible mycotoxin mitigation and monitoring systems in developing countries.

PMIL anticipates funding 6-8 peanut value chain projects, one-two genomics and breeding projects, and one-two mycotoxin projects. Peanut value chain projects should be broad in scope and should target one or more of the following countries: Ghana, Malawi, Mozambique, Zambia and Haiti. Associated activity in other developing countries will be considered but there must be a compelling reason for their inclusion and results should still have potential impacts in at least one of the five countries listed above. Value chain research projects must propose a coordinated set of research activities along the entire peanut value chain continuum or critical segments of that continuum. Focus areas for value chain research include increased peanut production, mycotoxin management, seed production, post-harvest handling and processing, product development and improved nutrition in the focus country(ies). It is anticipated that each of PMIL's peanut value chain projects will have work plans that include mycotoxin mitigation as one of the project goals. Improved peanut genetics may be a component of efforts to increase peanut yield and quality. Traits of value in the focus country(ies) may be identified, cultivar performance may be evaluated and breeding programs may be established to develop new cultivars with desirable traits.

While genetic improvements may be an important component of peanut value chain projects in a specified country or countries, the PMIL genomics and breeding project(s) should be more global in nature, not necessarily targeting a specific local need, but still addressing common low-input situations in developing countries. Goals of the genomics and breeding project(s) would include the development of germplasm with desirable traits, identification of genetic markers, development of new breeding methods and approaches, as well as development of new cultivars that would enhance peanut production in countries with limited mechanization and capacity for inputs. Traits of importance to those areas include drought tolerance, mycotoxin resistance, resistance to key pests, enhanced nutritional value, longer shelf life and others. The overarching genomics and breeding project(s) should be aware of the PMIL peanut value chain projects and provide technical support when possible. While PMIL peanut value chain projects will specifically target Mozambique, Zambia, Malawi, Ghana and Haiti,

genomics and breeding research can be conducted anywhere that accomplishes the desired outcomes. Proposals are encouraged to capitalize on successes in the former Peanut CRSP breeding programs in Ghana, Uganda and Bolivia.

Research has shown mycotoxin contamination in staple foods, especially corn and peanuts, to be a major health issue in warm-climate developing countries. In a manner similar to the genomics and breeding project(s) described above, PMIL would like to fund one or two overarching mycotoxin research project(s) that will provide a global research base for efforts to control mycotoxins and also provide technical support for PMIL's peanut value chain projects. Mycotoxin management projects may be directed at peanut or any other crop that is relevant to the target countries. The development of feasible and scalable mitigation measures and improved diagnostic and monitoring techniques are key components of the success of PMIL projects and agricultural development in general. The mycotoxin project should strive to develop at least one of the following products: (1) mycotoxin resistant germplasm (possibly in collaboration with a PMIL genomics and breeding project), (2) locally feasible cultural practices that mitigate mycotoxin contamination, (3) innovative diagnostic methods, and (4) enhanced monitoring and regulatory techniques. Projects are encouraged to capitalize on the successes of former Peanut CRSP projects.

The ultimate goal of **ALL** projects should be to provide sound research results and to identify partner organizations that will use that research to stimulate economic development and improve human nutrition. Interdisciplinary and multi-institutional projects will be necessary to accomplish these goals.

Research projects should identify logical partner organizations and projects and show how PMIL and the partners will be synergistic in achieving impacts. Partners may include other international research entities such as the CGIAR Research Programs, other Innovation Labs, CSOs, NGOs, and private foundations. Involvement of and support for the National Agricultural Research System (NARS), in the target countries, is especially important. While funded projects will be accountable for relevant research results, a connection between those results and eventual economic development should be demonstrated. Principle Investigators of funded projects will serve on a PI Advisory Panel that will assist the PMIL Director with project management.

Human and institutional capacity is a key contribution from the U.S. university-based Innovation Labs. Applicants should briefly describe how human and institutional capacity will be strengthened through proposed projects. In the full proposal, applicants should indicate their plans for Masters and/or Ph.D. training, describe how potential graduate students from developing countries would be identified and selected and describe how the training of these individuals would build institutional capacity in their home countries.

Submission instructions: Concept notes that describe the goals and methods of the proposed project should be submitted to Dr. Steve L. Brown, Interim PMIL Director, 111 Conner Hall, University of Georgia, Athens, Georgia, 30602. Concept notes will also be accepted via email at bugbrown@uga.edu. The Management Entity will review these notes for consistency with PMIL objectives, and suggest modifications that minimize overlap among projects and maximize synergy between projects. Selected

applicants will be contacted and asked to prepare full proposals that incorporate those modifications. Concept notes should be received at the PMIL by COB May 31, 2013. See the PMIL website at pmi-lab.org for more specific submission instructions.

Preparation of Concept Notes: The PMIL requests a brief (two page) summary of your concept of how the proposed project would be organized. A template for the Concept Notes is available at <http://pmi-lab.org>. Concept Notes should be received by COB May 31, 2013.

In order to maximize project efficiency, the PMIL will review the concept notes and may suggest some additional partnerships, or even suggest combination of some proposals. The PMIL will then request full proposals with some more specific stated goals and budget guidelines.

Full proposals will be organized as follows:

- 1) Constraints to the full utilization of peanut in (target country or countries)
- 2) Research needs to address those constraints
- 3) Contribution of the research project to human and institutional capacity development
- 4) Project goals
- 5) Project work plan
- 6) Project budget
- 7) Project evaluation plan

Timeline and funding levels: After review of concept notes, PMIL expects to call for full proposals by June 7. The deadline for full proposals will be in mid-July with awards being made by mid-August. Projects will end on July 30, 2017. Peanut value chain projects will have an average funding rate around \$250,000 per year over the 4-year period. The genomics and breeding projects and the mycotoxin projects will be funding up to about \$450,000 per year over the 4-year period.