

UNIVERSITY OF KENTUCKY NATURAL PRODUCTS ALLIANCE (NPA)
Cross-disciplinary Research Program in Natural Products

Support for a limited number of research projects to be conducted by Faculty of the Colleges of Agriculture, Pharmacy and Medicine (and their collaborators), University of Kentucky aimed at increasing our ability to discover, enhance, and commercialize natural products in the Commonwealth.

Call for Proposals - Application Guidelines
(2006-07 funding period)

Letter of Intent due: **8/15/06**.

Full proposals due: **9/15/06**.

Earliest Grant Start Date: **10/15/06**

RFP for the 2007-2008 program will be made available in the near future

1. **Background and Purpose of the Alliance and Program**

The Natural Products Task Force consisting of certain UK faculty, and administrators was organized in 2002 to develop research capabilities in natural products (NP) research at the University of Kentucky. A specific goal was to align efforts towards this end by mainly faculty from the Departments of Pharmacy, Medicine, Chemistry and Agriculture, and the KTRDC. The Natural Products Alliance (NPA) entity was initiated by a NSF-funded Natural Products Alliance grant, which will soon end. The NSF grant stimulated research in this area and evolved interest in interdepartmental research on NP in ways which have led to several truly inter-disciplinary projects. This progress has provided impetus to continue the NPA organization and its efforts. The current goal of the NPA is to expand the number of interdisciplinary research projects on NP. The long-term goals are to create major sponsored projects in NP at UK which are funded by \$4M-\$5M State, Federal, or private funds, secure 10+ licensable technologies and several start-up companies, and establish a National Center of Excellence in NP at UK.

Limited funds have been committed by the Colleges of Agriculture, Pharmacy and Medicine to continue the NPA. These funds will be available for 3 years, beginning ~October 2006, mainly to support a competitive, seed grant program in NP for collaborating UK faculty, at least one of whom must have their primary appointment in the Colleges of Medicine, Pharmacy or Agriculture. The one-year grants are to support inter-disciplinary, collaborative research towards the goal of commercializing a NP, or a platform for producing or defining a natural product(s).

Grants will be reviewed on the basis of three main criteria:

- a) The **scientific merit**.
- b) A clear and detailed description of **how the ultimate goal of the work is a commercializable NP entity**, and **how the seed grant can lead to extramural support** to continue the work at the grants end.
- c) The clear **inter-disciplinary nature** of the effort.

Grants may be renewable for a second year, but all grants submitted in a given year will be reviewed using the same criteria. However, substantial progress in a project requesting renewal will be recognized.

2. Examples of how federal granting agencies view the importance of natural products. These examples from the NIH Roadmap Initiative (<http://nihroadmap.nih.gov/initiatives.asp>) should be used only as a guide and by no means are the proposals limited to the scope of these RFAs.

Title: Pilot-Scale Libraries for High-Throughput Screening (P41)
Request For Applications (RFA) Number: RFA-RM-06-003

Title: Using Metabolomics to Investigate Biological Pathways and Networks (R01)
Request For Applications (RFA) Number: RFA-RM-06-010

Other examples from DOE and USDA sites:

Title: Alternative Crop Products:
http://www.nasulgc.org/publications/Agriculture/ESCOP2001_Science_Roadmap2.pdf

Title: Developing Cleaner Fuels, DOE:
<http://energy.gov/news/3804.htm>

Title: Biobased Products and Processing, USDA-NRI
www.csrees.usda.gov/ProgView.cfm?prnum=5399

2. Program details

Limited funds are available to support a limited number of ~\$30 to 40,000 1, year grants (no overhead). A description of the potential for securing matching funds should therefore be provided if costs would exceed that amount.

Interested faculty collaborators should send a one-page letter-of-intent to submit a proposal to G. Wagner (gwagner@uky.edu) by 8/15/06. The letter of intent should include; the departmental affiliations of all faculty participants, a title, a 300-500 word abstract written in layman's terms that details the scientific, commercial promise and interdisciplinary aspects of the NP research effort. Invitations to submit a full proposal will be sent before 8/22/06, and proposals will be due 9/15/06. Proposals will not exceed 5 single spaced pages, 10 or 12 pt text.

Letters-of-intent will be reviewed by a "Decision Committee" consisting selected members of the NPA, and one outside expert to primarily evaluate the commercialization aspect. Proposals will be reviewed by two UK faculty, (likely selected from NPA participants who are not co-PIs on a submitted proposal) and one outside reviewer. Applicants may suggest 2 or 3 outside science expert reviewers. All reviewers would be encouraged to give consideration to the NPA's focus of nurturing interdisciplinary research, and the commercialization potential of the research described in their evaluation of grants. Post review decisions will be made by the "Decision Committee" after considering reviewer's comments, and all 3 criteria outlined above.

Proposals should describe the scientific objectives and an anticipated path for commercialization. Specific extramural grant agencies and programs that might be targeted for continuation of the work beyond the seed grant should also be mentioned. Any specific information relating to markets for the target NP should be briefly described.

There would be no reporting requirement during the 1 year duration of the grant. A progress report (5 page maximum) will be due 30 days after the grant termination date.

3. Proposal guidelines

- Four copies of the research proposal and all supplementary materials (detailed below) should be provided.
- The proposal document should comprise five parts.....
 - (1) Title page, with P.I.s and their affiliations, and an abstract of proposed research (not to exceed one half-page).
 - (2) Description of proposed research with clear identification of the NP

- entity being researched.
- (3) Description of extramural granting agencies and specific programs from which continuation funds will be requested, based on preliminary data obtained from seed grant research.
 - (4) Budget [including allocations for personnel (e.g., part of a salary), current expenses, travel) total not to exceed \$40,000, with notation of arranged/available matching funds, if the essential budget exceeds this amount. P.I. salary cannot be supported.
 - (5) Two-page resumes of P.I.s.
 - (6) Suggestions of 2-3 possible science expert outside reviewers, who should have played no role in the development of the proposal.
- Parts 1 to 5 should not exceed 5 pages of single-spaced text (minimum text size 10 point), excluding literature references. Figures (and literature references) may be attached as supplemental pages. A brief supplemental summary should also be provided of any other financial support which the applicant is receiving for similar or related research.
 - Please note that indirect costs are not applicable and should not be included.
 - Due to limited funds, an investigator may only be part of one submitted proposal.
 - UK Laboratory Safety Standards and Approvals:
NPA grant applicants are solely responsible for obtaining, from the appropriate University of Kentucky process, all necessary approvals for use of radiochemicals, hazardous materials, and recombinant DNA in their proposed research. For proposals that include the use of laboratory animals approval must be obtained from the Institutional Animal Care and Use Committee (IACUC). The NPA will award funds on the assumption that the applicants have obtained all required permits and approvals, and will not be responsible for any non-compliance with University of Kentucky policies and regulations.
 - Intellectual Property and Collaborative Projects
As with most research projects, NPA-supported research may generate the combination of novel ideas and "reduction to practice" that defines a potentially patentable invention. Recipients of NPA grants are strongly encouraged to secure intellectual property whenever the opportunity arises. Within UK, the Intellectual Property Office in the ASTeCC facility (257-2300), may be contacted for additional information and assistance.
 - "Internal Approval Form" and "Conflict of Interest" Form
The NPA does not require these forms. However, applicants are advised to check with their respective Departments or Colleges to determine if they are required by those units for internal record-keeping purposes.

- Proposals in paper copy (1 original with signatures of all PIs, and 4 copies) are due by September 15, 2006, to:

Dr. G. Wagner
Director, Natural Products Alliance, UK
200L KTRDC
University of Kentucky
Cooper & University Drives
Lexington, KY 40546-0236

e-mail: gwagner@uky.edu

(e-mail for information/discussion only - please do not send proposals electronically).
