



August 7, 2000

Dear Cancer Center Directors:

This letter is to notify you of an opportunity to apply for funds, available in FY 2001, to support pilot projects in Cancer complementary and alternative medicine Research. The primary purpose of this initiative is to provide needed resources for research base development to those centers that want to develop a Cancer complementary and alternative medicine research program. It is important for each center to consider how the development of Cancer complementary and alternative medicine research can have an impact on their communities. Please refer to the attached Letter RFA CA-00-502, Instructions for Applying for a Supplement to the P30 Cancer Center Support Grant, for complete instructions needed to complete the application package.

#### Letter of Intent

Applicants are asked to submit, by October 6, 2000, a letter of intent that includes the number and title of this RFA; the name, address, and telephone number of the Principal Investigator; the identities of other key personnel and participating organizations or institutions, if any; and the title of the pilot projects. Although a letter of intent is not required, is not binding, and does not enter into the review of applications, the information that it contains will be especially helpful to the NIH in planning for the review of applications and estimating the potential workload to plan the review. Please mail/fax letters of intent to me.

#### Schedule

The application receipt date is November 13, 2000. Applications will be reviewed by a special Scientific Review Group then by NCI May 2001 Council. Awards will be made as a supplement to the P30 Cancer Center Support Grant; the earliest possible award date will be July 1, 2001. A budget not exceeding \$400,000 total costs per year in developmental pilot projects for a period not to exceed three years may be requested.

#### Background

The widespread use of a variety of nutritional, psychological and natural medical approaches collectively termed complementary and alternative medicine (CAM) has been well documented. Recent surveys demonstrate that between 9 and 91% of U.S. cancer patients use CAM therapies at some time after their diagnosis.

Despite the extensive use of CAM treatments for cancer, there is a paucity of data available to

indicate whether these practices are efficacious and/or safe. Various NIH advisory groups including the National Cancer Advisory Board Subcommittee to Evaluate the National Cancer Program and the NCI Director's Consumer Liaison Group have cited the need for increased research on CAM approaches for the treatment of cancer and have encouraged the NCI to support the evaluation of CAM therapies.

In Fall 1998 the NCI established the Office of Cancer Complementary and Alternative Medicine (OCCAM) to promote and support research in the various disciplines and modalities associated with the field of complementary and alternative medicine as they relate to the diagnosis, prevention and treatment of cancer. One of the functions of the OCCAM is to be the NCI's liaison to the NIH National Center for Complementary and Alternative Medicine (NCCAM). The NCI and NCCAM each will obligate \$1 million per year to support meritorious applications responding to this initiative.

There is a paucity of R01 funded research grants in the field of cancer CAM. A review of the NCI and NCCAM's research portfolios has identified few CAM cancer grants for exploratory/developmental grants (i.e. R21) or research project grants (i.e. R01) as well as a poor record of the successful grants leading to successful applications for more advanced research. Therefore, to increase the number and quality of investigator-initiated R01 research grants on cancer CAM, the NCI's OCCAM and the NCCAM are jointly sponsoring this initiative to support pilot projects with high potential to generate more advanced research.

### Purpose

The intent of this initiative is to encourage and support the development of basic, clinical (prevention, therapeutic and palliative), epidemiological, population science and cancer control CAM research within NCI-supported cancer centers. Pilot and phase I and II clinical trials may be included as projects.

Another goal of this initiative is to facilitate communication and collaboration between the CAM practitioner and the conventional cancer research communities. Practitioners of CAM modalities and systems develop through professional educational systems that differ from conventional biomedicine. Their career development has generally not included scientific investigation as an important element. Most CAM professional schools in the United States do not have strong research programs with experienced NIH-supported grantees. These differences, as well as long-standing tensions between practitioners of conventional medicine and many systems within CAM, have lead to a separate development and separate sets of standards of practice.

### Description

Any of the relevant areas of CAM listed below (CAM Program Areas) may be included. The rationale for the choice of a particular CAM modality, as well as the reason for its selection

instead of other CAM or non-CAM approaches, should be provided. Each pilot project must have been approved by the Cancer Center's internal pilot project review process. Research topics may include, but are not limited to: 1) prevention (including secondary prevention); 2) modification of disease course; 3) supportive care or symptom management (including pain control by methods or techniques other than conventional analgesics); 4) management of chemotherapy, surgery or radiation induced side-effects; 5) issues involved in improving quality of life of cancer survivors; 6) Interaction of conventional treatment and CAM modalities; and 7) treatment. Multidisciplinary approaches to study the molecular and cellular basis of the mechanism of action of CAM therapies in cancer are encouraged, as are collaborations with investigators doing basic research in cancer. The establishment and use of animal and other models to study biological effect and mechanism of action of CAM approaches and agents is encouraged. Examples of some potential areas of interest include but are not limited to the following:

- Phase I/II clinical trials of botanicals. The conduct of these trials should be supported by some preliminary evidence of efficacy. This evidence might include, for example, patterns of traditional use and case series, as well as preclinical or pilot clinical data against cancer or for palliation of symptoms or side-effects.
- Unconventional adjuvant nutritional or medical approaches that either augment the therapeutic effect of conventional therapies or ameliorate side effects. These approaches should be consistent with the description of CAM modalities listed below (CAM Program Areas).
- Elucidation and systematic evaluation of the mechanisms of action and potential clinical significance of drug-botanical interactions. Comparative analyses of therapeutic indexes of whole botanical products versus specific isolated compounds from these products with known anticancer activity.
- Mental Health assessments are not allowed as the sole primary outcome measures.
- Cancer chemoprevention studies that evaluate unpurified whole natural substances (e.g., soya products, herbal extracts, etc.).
- Studies to evaluate the potential interaction of antioxidant compounds and conventional chemotherapy and/or radiation therapy.

CAM Program Areas:

For the purpose of this letter RFA, investigators must include modalities from the following broad program areas in CAM:

- Alternative Medical Systems (e.g., oriental medicine, Ayurvedic, homeopathy, naturopathy);

- Manipulative and Body-based Systems (e.g., chiropractic, osteopathic, massage therapy or unconventional applications of integrated conventional and physical therapies);
- Biofield (e.g., energy healing, therapeutic touch, Reiki, intentional effects on living systems);
- Bioelectromagnetics (e.g., diagnostic and therapeutic application of electromagnetic (EM) fields including pulsed EM fields, magnetic fields, Direct Current (DC) fields, artificial light therapy, etc. Note: This category does not include the study of electromagnetic fields as risk factors for disease);
- Pharmacological Therapies (e.g., metabolic therapies and immunoaugmentative therapies as used by CAM practitioners or the public such as antineoplastons, Coley's toxin, Enzyme therapies, the Livingston-Wheeler system, the Revici system or 714-X)
- Herbal Medicine (Note: This category includes studies of whole plant products or extracts and does not include the study or isolation of active ingredients from herbal preparations except where identification and standardization of optimal whole product are the specific aim -- e.g. optimal ratio of glycosides and terpenoids in Ginkgo biloba -- or comparisons are being made to the whole product);

NOTE: Studies incorporating the following three CAM program areas MUST focus on the more unconventional uses of these approaches and MUST involve collaborations with expert practitioners of these approaches. In addition compelling arguments that the interventions fall outside the purview of conventional medicine MUST be provided in the application.

- Mind-Body Medicine: This letter RFA is limited to those mind-body approaches that address unconventional explanatory models with a focus on their NOVEL scientific and clinical use, or that are usually used by the public or practitioners outside of a conventional medicine setting (e.g., transcendental meditation, imagery, hypnosis, biofeedback, music therapy, yoga, relaxation, spirituality, biological effects of consciousness). Mind-body approaches that are relatively integrated into conventional medicine (e.g., patient education, psychotherapy, cognitive-behavioral approaches, mindfulness meditation, etc.) will NOT be considered unless physiologic endpoints (e.g., immune parameters) or disease parameters (response rate to conventional therapy, disease-free survival, overall survival) are the primary outcome measures;
- Orthomolecular Medicine - This category includes the use of products, many of which may be used as nutritional and food supplements (e.g., ultra-high doses of magnesium, Co-enzyme Q<sub>10</sub>, carnitine, melatonin, vitamins) when investigated for therapeutic or preventive purposes. These products are usually used in combinations and at very high

doses (5-10 fold) well above the Recommended Daily Allowance (RDA) when such RDAs have been defined. For the purposes of this RFA, orthomolecular medicine may be integrated within comprehensive lifestyle changes based on indigenous or non-orthodox systems of medicine (e.g., Ornish or Pritikin programs).

Progress and final reports

The progress reports, final report and the CAM relevancy of the pilot projects in the second and third years will be reviewed administratively by our office and NCCAM Program Director.

I will assist the Cancer Centers Program in managing the application receipt and review logistics. Dr. Mary Ann Richardson from the NCCAM will be collaborating with us in the management of this initiative. Please send your applications to the address indicated in the attachment.

If you have any questions, please contact me by phone (301) 496-3866, fax (301) 480-0075 or e-mail (pp64n@nih.gov). We look forward to your response, particularly from those of you who have expressed interest in strengthening the cancer complementary and alternative medicine research capability of your Cancer Center.

Sincerely,

P. T. Kim Pham, Ph.D.  
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Office of the Deputy Director for Extramural Science  
National Cancer Institute

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Attachment

cc: Cancer Centers Branch, NCCAM, Cancer Center Administrators