

DOD Seeks To Fund Innovative Research In \$38 Million Prostate Cancer Program

The Department of Defense has issued a Broad Agency Announcement to fund "scientific ventures that represent underinvestigated avenues of research or novel applications of existing technologies" in prostate cancer.

The program, administered by the US Army Medical Research and Materiel Command, located at Ft. Detrick, MD, will award \$32 million to projects in basic, clinical, behavioral, and epidemiological research.

Unlike the DOD Breast Cancer Research Program which awards (Continued to page 2)

<u>In Brief</u>

Lee Helman To Head NCI Pediatric Branch; HHS To Hear From Academic Health Centers

LEE HELMAN was appointed chief of the Pediatric Oncology Branch in the NCI Division of Clinical Sciences, replacing Philip Pizzo, who left last year for Children's Hospital in Boston. Helman, the acting branch chief since 1996, joined the branch in 1983 as a medical staff fellow. His research interests include the molecular pathogenesis of pediatric sarcomas and the role of insulin-like growth factors in the pathogenesis of rhabdomyosarcoma. ... HHS has scheduled two public meetings to address the future of academic health centers. Acting Assistant Secretary for Health John Eisenberg, and Deputy Assistant Secretary for Health Ciro Sumaya will hold hearings on Aug. 27 in Chicago, and Sept. 2 in Houston. Contact: Damon Thompson, tel: 202/ 205-1842.... RANDALL HOLCOMBE was named associate director of clinical research at the University of California, Irvine Cancer Center, and chief of the department of hematology/oncology at the UCI College of Medicine. Holcombe is a former associate professor of medicine, pediatrics, microbiology, and immunology at Louisiana State University, Shreveport. ... ONCOLOGY NURSING CERTIFICATION CORP. received the American Society of Association Executives' "Associations Advance America Award" for its State of the Knowledge on Nursing Certification Conference held last year. . . . FRANZ-ULRICH HARTL received the American Society for Biochemistry and Molecular Biology's Lippman Award for research into the mechanisms of protein folding in cells. Hartl is a Howard Hughes Medical Institute Associate Investigator at Memorial Sloan-Kettering Cancer Center.

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Prostate Cancer Research Grants Available From DOD

(Continued from page 1)

grants in "well-founded" clinical research, and computer based decision support systems, the prostate cancer program will fund only proposals that are considered "innovative."

The USAMRMC defines innovative as research that is: "novel; the start of something new; looking at an existing problem from a new perspective; creating or introducing something new or unusual; challenging existing paradigms; or representing new paradigms."

The funds will be awarded through a new dualphase funding strategy that allows recipients to compete for phase II awards after the 30-month phase I grants expire. The Dual-Phase Research Award was designed to provide a transition between the phase I DOD award and traditional funding mechanisms, the document states.

Prostate cancer research proposals will be reviewed through the two-tiered process implemented by DOD for the Breast Cancer Research Program. First, proposals are submitted for peer review, then a programmatic relevance review.

"Although scientific merit is an important criterion for award, proposals that receive high scientific merit scores in peer review but are judged to have low programmatic relevance are likely not



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Editor & Publisher: Kirsten Boyd Goldberg Editor: Paul Goldberg Staff Writer: Catherine Fiore Circulation: Rena Guseynova

P.O. Box 9905, Washington, DC 20016 Tel. (202) 362-1809 Fax: (202) 362-1681 Editorial e-mail: kirsten@www.cancerletter.com Customer service: subscrib@www.cancerletter.com

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The DOD peer reviewed program in prostate cancer is funded by \$38 million appropriated by Congress last year.

No money has been appropriated in the DOD appropriations bills for the peer-reviewed program in prostate cancer in 1998. Both the House and the Senate have passed DOD appropriations bills.

The House-Senate conference will offer the last chance for an amendment to be introduced to appropriate money for the program next year.

The Senate appropriations bill for fiscal 1998 provides \$175 million for the breast cancer program, and \$100 million is appropriated in the House bill.

A recent report by a panel convened by the Institute of Medicine said year-to-year funding has hampered the ability of the Breast Cancer Research Program to plan for the longer term. The report recommended multi-year authorization of the BCRP (**The Cancer Letter**, Aug. 15).

"Central Theme Is Innovation"

The excerpted text of the USAMRMC Broad Agency Announcement follows:

The central theme is innovation. Scientific ventures that represent under-investigated avenues of research or novel applications of existing technologies are highly sought. Proposals addressing the needs of minority, elderly, low-income, rural, and other under-represented populations are encouraged. Although the program wishes to encourage risktaking research, such projects must nonetheless demonstrate solid scientific judgment and rationale.

The programmatic strategy is being implemented by a solicitation for proposals in two research award categories: New Investigator Awards and Idea Development Awards.

The intent of the New Investigator Award is to promote and reward innovative ideas and technology from new investigators to conquer prostate cancer. In accordance with this challenge to be innovative, the USAMRMC invites the submission of New Investigator proposals that may lack pilot data.

The Idea Development Awards are intended to support innovative projects from established investigators that show promising preliminary data in prostate cancer. The USAMRMC is particularly interested in preparing new scientists for careers in prostate cancer research and presenting an opportunity to move established investigators into the prostate cancer field.

Dual-Phase Research Awards

The vision of the Prostate Cancer Research Awards is qualitatively different from traditional awards. In an attempt to invigorate prostate cancer research, a new grant mechanism has been designed to specifically target innovative approaches, ideas, and investigators. Phase I of the Dual-Phase funding strategy is designed to support innovative ideas and approaches in prostate cancer research, while phase II is designed to provide transition support to position investigators for competition in traditional funding mechanisms.

Approximately \$32 million will be allocated in phase I to both the New Investigator and Idea Development Award Categories. Phase I awards will be funded over a thirty-month period. Investigators must include in the original submission a detailed description of the phase I goals and phase II experimental objectives. Information must be included in the proposal that supports a scientifically sound research plan for phase II.

All of the phase I awards must incorporate one of five designated research categories: carcinogenesis, etiology, and tumor biology; special populations and behavioral patterns; genetics and molecular biology; prevention and detection; or therapeutics and decreased morbidity.

Efforts will be made to fund a minimum of five proposals, inclusive of both the New Investigator and Idea Development Awards, in each of the designated research categories.

New Investigator Awards

Approximately \$4.2 million will be available to support the New Investigator Awards. New Investigator Awards will be for a maximum of \$75,000 per year for thirty months (direct costs only) and may include up to \$1,500 annually for travel to scientific meetings.

For the purpose of this award category, "New Investigator" is defined as an individual who: has their own independent research facilities; is within six years of post-doctoral, residency, fellowship, or equivalent training; and holds a position as an assistant professor or equivalent.

The intent of the New Investigator Award

category is to support innovative scientific approaches to prostate cancer research that may be untested but that are expected to reveal breakthroughs or new avenues of investigation. For the purpose of the PCRP, "innovative" is defined as: novel; the start of something new; looking at an existing problem from a new perspective; creating or introducing something new or unusual; challenging existing paradigms; or representing new paradigms.

Idea Development Awards

Approximately \$27.7 million will be available to support the Idea Development Awards. Awards will be for a maximum of \$125,000 per year for thirty months (direct costs only) and may include up to \$1,500 annually for travel to scientific meetings.

For the purpose of the Idea Development Awards, candidates must: have some preliminary data in prostate cancer research relevant to the proposed project; have their own independent research facilities; and hold a position of at least assistant professor level or equivalent.

The intent of the Idea Development Award is to give established prostate cancer investigators and those investigators who want to move into the prostate cancer field the necessary support and time to undertake under-investigated avenues of research. The USAMRMC will only consider proposals with preliminary data specifically in prostate cancer research.

All Idea Development investigators must submit with their proposals one page that includes promising, well-founded preliminary data in prostate cancer research that are relevant to the proposed project, as well as a summary of the principal investigators' research and professional experience

The Cancer Letter Takes Publishing Break Next Week

The Cancer Letter will not be published next week while the staff takes a one-week summer break.

The next issue of **The Cancer Letter**, Vol. 23, No. 34, will be dated Sept. 5, 1997.

The Cancer Letter is published 48 times a year. For the remainder of the year, publication breaks are scheduled for the last week in November and the last two weeks of December. The final issue of the year will be dated Dec. 19.

in prostate cancer research and/or their potential for contribution in the prostate cancer field.

Phase II Awards

New Investigator Awards will be for a maximum of \$150,000 per year for two years. Idea Development Awards will be for a maximum of \$250,000 per year for two years.

After two years of research, the USAMRMC challenges all funded PCRP investigators (both New Investigators and Idea Development Investigators) from phase I to compete for an additional two years of funding. Phase II awards are subject to the availability of funds in FY 2000.

Phase II awards will be made by April 2001 to those investigators who demonstrate the most productivity and innovation in phase I, and submit the most scientifically promising research project for phase II. Only the best projects will be funded in phase II, regardless of the investigator's designated research category.

Where To Obtain BAA

A copy of the BAA and associated forms can be downloaded at http://mrmc-rad6.army.mil/ documents.html.

Questions concerning the preparation of proposals, formats, or required documentation can be addressed to the USAMRMC at: U.S. Army Medical Research and Materiel Command, Attn: MCMR-PLF (PCRP-BAA-97), 524 Palacky Street, Fort Detrick, MD 21702-5024, tel: 301/619-7079, fax: 301/619-7792, email: radvi_baa@ftdetrckccmail.army.mil.

<u>Cancer Policy:</u> Board Seeks Strengthening Of Tobacco Agreement

In a letter to HHS Secretary Donna Shalala, the Institute of Medicine's National Cancer Policy Board outlined five ways in which the proposed settlement with the tobacco industry could be improved.

The five points are part of a 1994 Institute of Medicine report, the organization said.

An excerpted text of the NCPB recommendations follows:

Goals for reducing rates of youth initiation and tobacco use must be explicit, and failure to achieve them must be penalized sufficiently to

build strong incentives for compliance by the tobacco industry.

Any long-term solution to the problem of tobacco-related disease will require incentives for private firms to be in alignment with public health goals. The proposed settlement is one opportunity to create such incentives, but even without a settlement federal policy should establish appropriate incentives.

The price of tobacco products must be increased substantially and immediately.

To achieve a powerful public health impact, state and federal excise taxes over and above any settlement must be increased immediately by at least the \$2 increment recommended in 1994, and thereafter continually adjusted to match or exceed inflation.

The federal preemption of state and local regulation of advertising and promotion must be repealed.

Federal legislation currently prohibits state and local governments from regulating any form of advertising and promotional activities based on smoking and health, even if the activity occurs exclusively within the jurisdictional borders. Building capacity for other state and community tobacco control measures is also important. Federal support to states and local communities should be increased.

FDA regulation of tobacco products must be strengthened.

Despite the steps taken by FDA, federal regulation of advertising, promoting, labeling, packaging, and contents of tobacco products is incomplete.

Federal regulatory efforts through FDA, the Federal Trade Commission, and other agencies must be strengthened to approach the full range of actions recommended in 1994.

The federal government must study, monitor, and evaluate tobacco control measures.

The federal government should continue to support research, monitoring, and evaluation, regardless of whether a settlement is implemented.

The 1994 report noted the importance of research to understand and improve behavioral and public health interventions.

Generating new knowledge will become even more important as tobacco control activities escalate. Supporting research, monitoring and evaluation is a federal responsibility.

<u>NCI Programs:</u> Bomb Tests Caused 2-Rad Average Exposure To I-131

A report released by NCI estimates the radioactive iodine-131 exposure to Americans living during the nuclear testing of the 1950s and 1960s was an average 2-rad cumulative thyroid dose.

That dose is about the same amount that was used in diagnostic thyroid scans in the 1950s.

The dose level could be higher for children under five years, those living to the north and east of the Nevada Test Site, and those who were drinking large quantities of milk during the fallout, particularly children aged 3 months to 5 years, the report said.

The study was conducted at the request of Congress, which passed legislation in 1982 requiring HHS to develop a method to estimate I-131 exposure, assess thyroid doses of the isotope to US residents living during the Nevada nuclear tests, and to assess the risk of thyroid cancer due to exposure.

The NCI report does not assess the cancer risk associated with the I-131 exposure.

An Institute of Medicine review panel will be formed to assess cancer risk among the approximately 160 million people living in the US during the nuclear bomb tests.

The IOM review is expected to take about six months to complete.

Patient Advocacy: NBCC Seeking Coordinator For Activists' Journal Club

The National Breast Cancer Coalition is seeking a full-time coordinator for its Journal Club for breast cancer activists. The position will be based in Washington, DC.

Responsibilities include: training course graduates in critical appraisal techniques of the scientific literature; developing communication mechanisms for the club; developing a new consumer-edited newsletter on scientific literature; and serving as the scientific resource person for the coalition.

Qualified candidates will have an MS or MPH in Epidemiology or a related field with significant course work in the basic sciences (or vice-versa); demonstrated experience to teach scientific and technical concepts to the lay public; demonstrated experience to summarize relavent research studies to the lay public with clear, succint, written information; general knowledge of breast cancer research; experience in laboratory research; excellent research skills in medical and scientific literature; computer skills and experience with the internet; and a commitment to breast cancer activism and women's health issues.

People of color and breast cancer survivors are strongly encouraged to apply.

Contact Project LEAD with a resume and threepage writing sample at 1707 L Street NW, Suite 1060, Washington, DC 20036, fax: 202/265-6854. Deadline is Oct. 3.

<u>Research Integrity:</u> ORI Finds Student Of Collins Falsified Research Data

The HHS Office of Research Integrity said it has made a final finding of scientific misconduct in the case of a former research trainee who worked in the lab of Francis Collins, director of the National Center for Human Genome Research at NIH.

Amitav Hajra, of the University of Michigan, falsified and fabricated research data in five published research papers, two published review articles, one submitted but unpublished paper, in his doctoral dissertation, and in a submission to the GenBank computer data base, according to the ORI finding published in the July 15 Federal Register.

Collins first disclosed the fabrications last fall in a letter to scientists (**The Cancer Letter**, Nov. 1, 1996).

Hajra's doctoral training and research was supported by two Public Health Service grants, and his experiments were conducted at and submitted for publication from the genome center, ORI said.

Hajra has agreed, for the four-year period beginning July 7, 1997, to exclude himself from contracting or subcontracting with any U.S. government agency and involvement in nonprocurement transactions, and serving in any advisory capacity to PHS.

Hajra agreed to request or cooperate in requesting the retraction or correction of those research publications that have not already been corrected or retracted. He also agreed to notify the relevant editors of the affected review articles that the articles cannot be relied upon, ORI said.

Funding Opportunities: Kimmel Foundation Offers Awards To Young Investigators

The Sidney Kimmel Foundation for Cancer Research will award its Kimmel Scholar Award to 10 young investigators dedicated to a career in cancer research.

The two-year, \$10,000 grant is available to applicants who hold an MD, PhD, or equivalent degree, are already established in initial faculty positions, and are willing to perform research in an American, not-for-profit institution during the period of grant support.

Applicants must submit a personal statement about career objectives as they relate to cancer research and the mission of the Kimmel Foundation; a description of the applicant's work in cancer research and pertinent studies; an approximate budget summary; three letters of reference; and three original papers from peer-reviewed journals.

Deadline for application is Dec. 15.

Contact Gary Cohen, Cancer Center at GBMC, 6569 North Charles St. Ste 203, Towson, MD 21204.

RFP Available

RFP N01CN75079-70 Title: **Phase I Studies Of Chemopreventive Agents** Deadline: Approximately Oct. 15

The Chemoprevention Branch of the NCI Division of Cancer Prevention and Control is interested in establishing a Master Agreement pool with the objective of conducting phase I clinical trials to evaluate the pharmacokinetics, pharmacology, and toxicology of chemopreventive agents, as well as to evaluate the modulation of biological markers of carcinogenesis. The design of phase 1a clinical trials will be small, singledose, efficient studies that determine the dose-response of a given chemopreventive agent on pharmacokinetics, pharmacology, and toxicology. The second segment, phase 1b study, will involve a sequential, short-term (3-6 month), dose-escalation trial (in some cases randomized, placebo-controlled, and blinded) in a small group of subjects in which the endpoints will be pharmacokinetics, pharmacology, toxicology, and exploration of the modulation of quantifiable biological effects that are correlated with cancer incidence reduction. The maximum tolerated dose and minimum effective dose will be determined.

It is estimated that several Master Agreements will be awarded as a result of this announcement, each having a 60-month period of performance. The Master Agreement contract mechanism is a prequalification to enable qualified sources to compete for and perform future Master Agreement Orders. The obligation of funds shall be accomplished solely through the award of MAOs. Approximately five MAOs will be awarded per year.

Inquiries: The RFP may be accessed through the Research Contracts Branch Home Page by using the following Internet address: <u>http://wwwrcb.nci.nih.gov/</u><u>rfp.htm</u>. Contact: Erin Lange, RCB, PCCS, NCI, 6120 Executive Blvd. Rm 635, Bethesda, MD 20892-7226, tel: 301/435-3828, fax: 301/402-8579, email: langee@rcb.nci.nih.gov.

RFAs Available

RFA HG-97-003

Title: Mouse Gene Map

Letter of Intent Receipt Date: Aug. 18 Application Receipt Date: Sept.16

The purpose of this RFA is to solicit applications for research projects to construct a gene-based physical map of the mouse genome consisting of an ordered set of EST-derived markers integrated with the genetic and other physical maps of the mouse genome. At least \$2 million (including direct and indirect costs) per year will be available. It is anticipated that one to three research project grant (R01) awards may be made.

Inquiries: Bettie Graham, Division of Extramural Research, National Human Genome Research Institute, Bldg 38A Rm 610-MSC 6050, Bethesda, MD 20892-6050, tel: 301/496-7531, fax: 301/480-2770, email: bettie_graham@nih.gov

Grace Shen, Division of Cancer Biology, NCI, 6130 Executive Blvd. Rm 501-MSC 7381, Rockville, MD 20892-7381, tel: 301/435-5226, fax: 301/496-8656, email: gs35r@nih.gov

RFA CA-97-022

Title: Informatics Support For Breast And Colon Cancer Cooperative Family Registries

Letter of Intent Receipt Date: Sept. 3

Application Receipt Date: Oct. 7

The Extramural Epidemiology and Genetics Program of the NCI Division of Cancer Epidemiology and Genetics invites applications from organizations with demonstrated excellence in information technology (informatics, software development), and operations management (coordination of participating centers, data management and quality assurance, biostatistics and study methodology) for a cooperative agreement U01) for an Informatics Center (IC) for the NCI Cooperative Family Registries for Breast and Colon Cancer. The purpose of the current solicitation is to provide technical assistance and resource support services for the Registries.

The Registries represent an interdisciplinary consortium of participating centers of excellence in

clinical and human genetics and epidemiology, funded as cooperative agreements. The Registries serve as a research infrastructure. Technical skills and support services are required to: (1) assist the CFRBCCS investigators to assure the establishment, management and continuing quality of the CFRBCCS databases, including epidemiologic, clinical and repository-related information; (2) provide the technical expertise for the development of key information technologies, statistical methodology and study design that will be integral to the development of the next generation of cancer genetics studies; and (3) provide the technical expertise and training to the CFRBCCS necessary to develop, implement and maintain a central informatics system that facilitates the goals of the Registries and is secure and confidential. Support for this program will be through the cooperative agreement (U01).

Approximately \$850,000 in total costs per year for five years will be committed to fund applications. NCI anticipates making one award.

Inquiries: Amy Sheon, DCEG, NCI, 6130 Executive Blvd Ste 535-MSC 7395, Bethesda, MD 20892-7395, tel: 301/496-9600, email: as31r@nih.gov

RFA CA-97-023

Title: Mentored Career Development Award

Letter of Intent Receipt Date: Nov. 6 Application Receipt Date: Dec. 11

The Comprehensive Minority Biomedical Program of the NCI Division of Extramural Activities invites underrepresented minority research scientists who have been the recipient of an NIH Research Supplement for Underrepresented Minority Individuals in Postdoctoral Training (MIPT) or a Minority Investigator Supplement (MIS), funded by the NCI, who need an extended period of sponsored research as a way to gain scientific expertise while bridging the transition from a mentored research environment to an independent research/academic career to submit applications. This award offers opportunities for a mentored peer review experience in cancer research which will enhance the candidates knowledge and understanding of the peer review process with the intended purpose of developing skills with the expectation that the candidate will submit a grant application for nontargeted mechanisms (R29, R01). This award is aimed at fostering the cancer research careers of outstanding, junior underrepresented minority scientists who: have been the recipient of an NIH Research Supplements for Underrepresented Minorities award, funded by the NCI; are located at a majority institution; and are committed to developing and sustaining academic research programs.

This award is a novel mechanism that is intended to support underrepresented minority scientists and enhance the likelihood of success for junior underrepresented minority investigators who have committed to basic and clinical research careers in cancer. The estimated total costs available for the first year support of this program is \$500,000. There will be approximately five new awards made in response to this solicitation.

Inquiries: Sanya Springfield, Comprehensive Minority Biomedical Program, NCI, 6130 Executive Blvd Ste 620, Bethesda, MD 20892-7405, Rockville, MD 20852, tel: 301/496-7344, fax: 301/402-4551, email: springfs@dea.nci.nih.gov

Program Announcements

PA-97-088 Title: Supplements To Promote Reentry Into Biomedical And Behavioral Research Careers

NIH reannounces a program for administrative supplements to research grants to support individuals with high potential to reenter an active research career after taking time off to care for children or parents or to attend to other family responsibilities. The aim of these supplements is to encourage fully trained individuals to reenter research careers within the missions of all the program areas of NIH. This program will provide administrative supplements to existing NIH research grants for the purpose of supporting full-time or part-time research by these individuals in a program geared to bring their existing research skills and knowledge up to date. It is anticipated that at the completion of the supplement, the reentry scientist will be in a position to apply for a career development (K) award or for a research (R or P) award.

Inquiries: National Cancer Institute, Toby Friedberg, Referral Officer, Executive Plaza North, Rm 636, 6130 Executive Blvd, Bethesda, MD 20892, tel: 301/496-3428, fax: 301/402-0275.

PA-97-075

Title: Direct vs Indirect Antigen Recognition in Allograft Survival

NIH invites applications for studies to further our understanding of the immune response to direct or indirect presentation of allogeneic major histocompatibility complex (MHC) antigens and to determine the contribution of each pathway to acute and chronic graft rejection. The funding mechanisms to be used to support research under this PA are R01s and R29s.

Inquiries: The PA may be obtained electronically through the NIH Grant Line (data line 301-402-2221) and via the WWW at URL: http://www/nih.gov/grants (then select "NIH Guide for Grants and Contracts"). The PA identifies staff contacts for each sponsoring Institute.

PA-97-077

Title: Minor Histocompatibility Antigens in GVHD & Graft Rejection

NIH invites applications for studies to further our understanding of the role of minor histocompatibility

antigens in graft vs host disease following bone marrow transplantation and the possible involvement of MiHAs in chronic graft rejection of solid organ transplants.

This PA is directed at characterizing the immunologic response to MiHA and at defining the manner and extent to which that response affects successful long-term engraftment. This initiative is designed to promote research to characterize the immunologic response to MiHA and to attempt to define how that response can be prevented to enhance graft survival. It will support basic, pre-clinical, and clinical studies using molecular and cellular approaches to dissect the immune response to these antigens. The funding mechanisms to be used to support research under this PA are R01s and R29s.

Inquiries: The PA may be obtained electronically through the NIH Grant Line (data line 301-402-2221) and via the WWW at URL: http://www/nih.gov/grants. The PA identifies staff contacts for each sponsoring Institute.

PA-97-081

Title: Basic and Clinical Research on Immune Tolerance

NIH invites applications that will elucidate basic mechanisms responsible for inducing and maintaining antigen-specific immune tolerance, that will facilitate translation of experimental knowledge on immune tolerance into clinical therapies for the treatment or prevention of immune-mediated disease, or that will promote more effective development of vaccines by preventing pathogen-induced immune tolerance. Applications for R01 and R29 (FIRST) grant awards will be accepted in response to this program announcement.

Inquiries: The PA may be obtained electronically through the NIH Grant Line (data line 301-402-2221) and via the WWW at URL: http://www/nih.gov/grants. The PA identifies staff contacts for each sponsoring Institute.

PA-97-082

Title: Management of Symptoms Secondary to Treatment

The National Institute of Nursing Research, the National Cancer Institute, and the National Institute of Mental Health seek research applications concerning the clinical management of treatment-associated symptoms. The purpose of this initiative is to stimulate research that will lead to improved adherence to treatment regimens and better quality of life by the development and testing of strategies to decrease the negative impact of physical and psychosocial symptoms that are the secondary result of treatment or prevention regimens.

Inquiries: Claudette Varricchio, Division of Cancer Prevention and Control, NCI, EPN Suite 300, Bethesda, MD 20892, tel: 301/496-854, fax: 301/496-8667, email: Varricci@dcpcepn.nci.nih.gov

PA-97-086

Title: Chemical Modifiers of Radiation Response of Tumors

Application Receipt Dates: October 1, February 1 and June 1

The NCI Division of Cancer Treatment, Diagnosis, and Centers invites research grant applications for Program Projects (P01s) from interested investigators for preclinical exploration of the therapeutic potential of new and novel chemical modifiers of radiation response of tumors. Optimization of leads arising from the applicant's own work or from the published literature should include the design and synthesis of new compounds, using combinatorial chemistry, and preclinical evaluation in vitro and in vivo.

The following classes of radiation modifiers are of particular interest:

o Small-molecule inhibitors that target genetic alterations associated with solid tumors

o Small-molecule modifiers of cell growth and regulation (modifiers of cell cycle checkpoints, cell signal transduction modifiers)

o Compounds that exploit or modulate tumor physiology (e.g., inhibitors of tumor cell respiration, modulators of the tumor micro environment, or inhibitors of tumor angiogenesis)

o Prodrugs activated by tumor physiology or by other innovative mechanisms

Support of the program will be through the program project (P01) award.

Inquiries: Helen Stone, DCTDC, NCI, 6130 Executive Boulevard, Suite 800, Bethesda, MD 20892-7440, tel: 301/496-9360, fax: 301/480-5785, email: stoneh@dtpepn.nci.nih.gov

NCI Contract Awards

Title: Analysis of Anti-Cancer and Anti-AIDS Chemical and Pharmaceutical Formulations. Contractor: Midwest Research Institute, Kansas City, MO, \$2,925,614.

Title: Analysis of Anti-Cancer and Anti-AIDS Chemical and Pharmaceutical Formulations. Contractor: Research Triangle Institute, Research Triangle Park, NC, \$2,945,948.

Title: Development of Dosage Forms and Delivery Systems for Antitumor and Anti-AIDS Agents. Contractor: University of Utah, Salt Lake City, UT, \$1,373,694.

Title: Development of Dosage Forms and Delivery Systems for Antitumor and Anti-AIDS Agents. Contractor: University of Kansas, Lawrence, KS, \$1,230,328.

Title: Development of Dosage Forms and Delivery Systems for Antitumor and Anti-AIDS Agents. Contractor: University of Arizona, Tucson, AZ, \$1,090,640.

Title: Operation of a Registry of Tumors in Lower Animals. Contractor: George Washington University, Washington, DC, \$1,817,193.