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NCI Plans $30 Million In Patient-Oriented Chemoprevention Research In Next 5 Years

Advisors to NCI have approved the Institute's plans to set aside funds from the investigator-initiated grants budget to support patient-oriented research in chemoprevention.

The NCI Board of Scientific Advisors approved in concept two new Requests for Applications at its meeting Nov. 22. The concepts originally proposed to set aside $30 million each over five years, but the board

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In Brief

Columbia-Presbyterian Cancer Center To Be Renamed After Donor Herbert Irving

HERBERT IRVING, a New York City philanthropist and food distribution executive, has given Columbia University $10 million for cancer research at Columbia-Presbyterian Medical Center. With this gift, Irving becomes the largest donor in the history of Columbia-Presbyterian, having given nearly $35 million to the medical center. Columbia-Presbyterian Comprehensive Cancer Center will be renamed the Herbert Irving Comprehensive Cancer Center. **Karen Antman** is the center director. Irving is a cofounder and former vice chairman of SYSCO Corp., of Houston, a $13 billion Fortune 500 company and the country's largest food distributor. . . . **ST. JUDE CHILDREN'S** Research Hospital, Memphis, TN, will receive $3 million from Target Stores, based in Minneapolis, MN, as part of a multi-year partnership. Target will lead efforts to build "Target House," a place for families of longer-term patients to stay while their children are undergoing treatment. Ground breaking is scheduled for March 1997. Target also will provide in-store awareness and support of St. Jude in its 735 stores nationwide through health tips and brochures. . . . **JIMMIE HOLLAND** will serve as founding chairman of the Department of Psychiatry and Behavioral Sciences at Memorial Sloan-Kettering Cancer Center. The center's Board of Managers, on Nov. 26, endorsed the establishment of the department. Holland holds the Wayne E. Chapman Chair of Psychiatric Oncology at MSKCC. . . . **CHARLES BALCH,** president and chief executive officer of City of Hope National Medical Center and Beckman Research Institute, Duarte, CA, has hired two executives from M.D. Anderson Cancer Center. **Donna Sollenberger,** vice president for hospital and clinics, will become executive vice president and chief operating officer at City of Hope.

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NCI Initiatives

New Chemoprevention RFAs To Cost $30M Over 5 Years

(Continued from page 1)

recommended reducing the set-asides by half, to $15 million each.

One RFA concept proposes to fund three to five grants for phase II and III clinical trials of chemoprevention agents.

The second RFA concept proposes to fund three to five grants for research and development projects of chemoprevention in genetically-identified high-risk groups.

The excerpted text of the concept statements follow:

Pivotal Clinical Trials For Chemoprevention Agent Development. RFA concept, Chemoprevention Branch, NCI Division of Cancer Prevention and Control. Three to five awards, first-year set-aside $3 million, total $15 million over five years. Program Director: Gary Kelloff.

This RFA seeks to build on information from Chemoprevention Branch contract-supported agent identification, preclinical testing, and Phase I and early Phase II clinical studies of promising agents by supporting their continued systematic development in longer, intermediate-sized Phase II/III clinical trials. The goals for these pivotal clinical studies comprise 1) expansion and refinement of information from the smaller Phase II trials on efficacy, participant recruitment and retention, adverse effects, and acceptability of treatment over time; 2) validation of surrogate endpoint biomarkers (SEBs) selected from experience in the Phase II studies; and 3) diversification of the target populations for the chemopreventive interventions. Those respondents who are Research Bases within the Community Clinical Oncology Program should submit their proposals through the CCOPs mechanism to be considered as peer-reviewed supplements to their existing cooperative agreements.

This RFA will support Phase II/III randomized, placebo-controlled clinical trials to evaluate the chemopreventive efficacy of selected agents or regimens in target populations consistent with the Clinical Development Plans of the DCPC Agent Development Committee. Applications should focus on one of the following:

1. Prevention of colorectal adenomas in patients having a history of colorectal adenomas or early stage colon carcinoma using selected nonsteroidal anti-inflammatory drugs (NSAIDs, including less toxic derivatives), 2-difluoromethylornithine (DFMO), oltipraz, ursodiol, or the combinations of calcium with vitamin D or an NSAID and of DFMO with an NSAID,

2. Modulation of prostatic intraepithelial neoplasia (PIN) and cancer incidence by fluasterone (DHEA analog 8354), selected retinoids *[e.g.,* all-trans-N-(4-hydroxyphenylretinamide) (4-HPR) or 9-cis-retinoic acid], vitamin E, selenium, the combination of vitamin E with selenium, 5a-reductase inhibitors *(e.g.,* finasteride), or antiandrogens *(e.g.,* flutamide or bicalutamide);

3. Prevention of bronchial dysplasia or second primary upper aerodigestive cancer in patients with a history of resected early stage NSCLC or laryngeal cancer by retinoids *(e.g.,* 4-HPR or all-trans retinoic acid, possibly in aerosolized formulations), oltipraz, phenethylisothiocyanate, N-acetyl-l-cysteine (NAC), a-carotene, or the combinations of oltipraz with NAC or 4-BR;

4. Modulation of biomarkers (including mammographic patterns) and new proliferative or precancerous lesions in patients with atypical ductal or lobular hyperplasia or lobular carcinoma *in* situ

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by retinoids *(e.g.,* 4-E'R or 9-cis-retinoic acid), fluasterone or low-dose DHEA, DFMO, perillyl alcohol congeners, indole-3-carbinol, or the combination of vitamin E with selenium;

5. Modulation or prevention of dysplastic oral leukoplakia by 4-HPR, oltipraz (in chronic smokers), DFMO or curcumin;

6. Modulation of prevention of cervical intraepithelial neoplasia (CIN III) by 4-HPR, DFMO, oltipraz, or selected NSAIDs;

7. Prevention of recurrence or new lesions in patients with Ta/Tl bladder carcinoma with or without TIS (post-BCG) by 4-HPR, DFMO, or selected NSAIDs;

8. Modulation of precancerous lesions in Barrett's esophagus by DFMO, retinoids, or oltipraz.

Study endpoints should include changes in the most promising SEBs (such as those in preinvasive disease or proliferative disease), the development of new premalignant lesions, and, as appropriate, the occurrence of new invasive cancers. This emphasis on SEBs requires that the research team include strong collaborative support from the areas of pathology, biochemistry and molecular biology, and cancer biology and carcinogenesis, as well as a willingness to collaborate closely with NCI's SEB quality assurance program.

The clinical trial design should include an adequate number of participants and should be of sufficient duration to assure statistical power to address the study questions of chemopreventive efficacy, long-term safety and acceptability, and SEB validation To this end, biostatistics and clinical trial design expertise should be included from the first efforts in study planning and design. Study size and duration will vary according to specific study hypotheses, target population, agent(s), and SEBs and other endpoints.

Chemoprevention In Genetically-Identified High-Risk Groups: Interactive Research And Development Projects. RFA concept, Chemoprevention Branch, NCI Division of Cancer Prevention and Control. Four to five awards, first-year set-aside $6 million, total $30 million over five years. Program Director: Gary Kelloff.

The purpose of this initiative is establishment of integrated, multidisciplinary research programs that define and evaluate chemopreventive strategies in asymptomatic subjects at high risk for cancer. This RFA is seeking programs with administrative core functions supporting at least three independent research projects which share a common focus directed at designing and evaluating chemopreventive strategies in high-risk cohorts. This includes groups with on-going administrative clinical trials core functions and laboratory support such as cooperative groups, CCOP Research Bases and NCI designated cancer centers.

The programs should be directed to further characterizing and defining high-risk cohorts for major cancers, such as those listed above. High-risk may be defined by clinical and epidemiological criteria, linkage analysis or DNA testing or combinations of these parameters. Applications using clinical criteria or linkage analysis should include provisions for tissue collection and storage for future DNA testing.

Applicants are strongly encouraged to pursue research objectives consistent with the Clinical Development Plans for chemopreventive agents published by the NCI, DCPC Agent Development Committee (Journal of Cellular Biochemistry, Supplement 20, 1994 and Supplement 26, 1996).

At least two of the individual projects must involve Phase I/II or Phase II clinical chemoprevention trials or translational research needed for chemoprevention applications. Phase II studies should include molecular biomarkers or other intermediate biomarkers as surrogate endpoints for cancer incidence (cancer incidence may be beyond the scope and/or duration of this initiative for most clinical situations).

Translational research projects will primarily involve the characterization, quantitation and evaluation of the early molecular biomarkers that identify high-risk cohorts and serve as surrogate endpoints for cancer incidence in chemoprevention trials in these populations.

The programs will build on existing resources for identifying and recruiting participants to the clinical studies *(e.g.,* genetic testing programs, risk registries).

Core functions provided in the programs might include 1) tissue storage for later analysis, 2) a data management system with validated statistical and quality assurance procedures, and 3) safety and conduct monitoring of clinical trials with oversight by scientists with expertise in genetic and epidemiological research.

NCI Plans Two Grant Programs In Molecular Technologies

Advisors to NCI have approved the Institute's plans to set aside $16 million over the next four years from the investigator-initiated grants budget to support two new grants programs for the development of new technologies in the molecular biology of cancer.

The NCI Board of Scientific Advisors approved in concept two new Requests for Applications at its meeting Nov. 22.

One RFA concept proposes to fund 10 grants, at a cost of $10 million over three years to develop technologies to generate full-length cDNA libraries.

The second RFA concept proposes to fund four to six grants at a cost of $6 million over four years to evaluate molecular alterations in human tissue.

Administration of the grants programs would be shared by the newly created Technology Development Branch in the NCI Division of Cancer Treatment, Diagnosis and Centers, and the Cancer Biology Branch in the Division of Cancer Biology.

James Jacobson is the acting chief of the Technology Development Branch.

In other action at the meeting, DCTDC Director Robert Wittes withdrew two concept statements in response to questions and criticism by BSA members. The concepts, submitted by the Developmental Therapeutics Program, proposed the establishment of "National Cooperative Biosynthesis-Directed Drug Discovery Groups," and a grant program titled "Development of Novel Biosynthesis-Directed Approaches to Drug Discovery."

The concepts are likely to be resubmitted to the board at its meeting in March.

The excerpted text of the two approved concept statements follow:

Technologies for the Generation of Full-Length Human cDNA Libraries. RFA concept, Technology Development Branch, DCTDC, and Cancer Biology Branch, DCB. Ten awards, first-year set-aside $2.5 million, total $10 million over three years. Program Directors: James Jacobson, Cheryl Marks.

Background: The combination of the effort to sequence the human genome and the development of efficient techniques to generate and sequence cDNA libraries has led to a burst of information about human genetics and the identification and localization of large numbers of human genes to specific chromosomes. Those genes that have been identified and localized to a specific position in the human genome constitute a small portion of all human genes, however. A large number of partial sequences that have not been characterized and correlated with specific genes are available in cDNA libraries. Different techniques have been used to generate cDNA libraries and have resulted in recovery of partial sequences that represent different regions of a single gene. No straightforward method exists to identify all of the partial sequences that are part of a unique gene. Current methods used to generate full-length cDNA libraries are inefficient and likely are enriched for shorter genes. Efficient technologies are needed for generating full length cDNAs from mRNA in order to facilitate the process of gene discovery.

Purpose: This initiative will support applications proposing appropriate technology development. Those investigators who are already developing appropriate technologies and who anticipate successfully completing the technology development phase during the funding period may propose generation of full-length cDNA libraries from appropriate tumor tissues. Investigators may also propose to modify developed technologies in order to efficiently generate libraries of full length cDNAs that are enriched for tumor specific sequences, for example, genes differentially expressed in normal versus tumor tissue.

Support for this research program will be through the exploratory/developmental grant (R21) mechanism. Applications will be solicited for a single receipt date. Applicants will be asked to provide research strategies and budgets for the development of appropriate technologies and the generation of full-length cDNA libraries or libraries of differentially expressed cDNAs from appropriate tumor tissues. They will be asked to define milestones and a realistic time-line for accomplishing the proposed research. The milestones should be logical, intermediate stages necessary for successful technology development. Continued funding will depend on progress toward meeting the proposed milestones, which will be assessed by administrative review.

Novel Technologies For Evaluations of

Molecular Alterations In Tissue. RFA concept, Technology Development Branch, DCTDC, and Cancer Biology Branch, DCB. Four to six awards, first-year set-aside $1.5 million, total $6 million over four years. Program Directors: James Jacobson, Cheryl Marks.

Background: This initiative is intended to support the development of novel technologies to facilitate the comprehensive evaluation of the molecular profile of human tissues. Development of efficient, cost effective, sensitive technologies will permit the simultaneous, rapid evaluation of multiple molecular alterations in tissue specimens and, ultimately, in single cells. These technologies may be designed to detect genome-wide molecular alterations at the level of either DNA, RNA or protein. This initiative will encourage the development of integrated systems that support all aspects of these analyses including sample preparation, sample analysis and appropriate informatics systems for data collection and analysis.

Development of technologies to characterize molecular changes at all levels of gene expression are needed. At the nucleic acid level, technologies are needed for identification of genetic alterations genome wide, including cytogenetic alterations, spectra of point mutations in multiple genes, including genes that are members of cellular regulation pathways, all possible mutations in a single gene and patterns of gene expression, including changes in patterns of DNA methylation. Protein-based technologies are needed for effectively determining patterns of protein expression, the status of proteins functioning in pathways of cellular regulation, patterns of protein/protein or protein/nucleic acid interactions or post-translational modifications of proteins that result in changes in cellular behavior. Development of all of these technologies may require an interdisciplinary team approach to research. Collaborations among investigators who understand the biological questions that need to be addressed, researchers developing the technologies, engineers and specialists in bioinformatics will be encouraged.

Support for this research program will be through the individual research grant (R01) and pilot project/feasibility study (R21) mechanisms. Applications will be solicited for two receipt dates, approximately April 1, 1997 (to be funded in FY97) and Nov. 1, 1997 (to be funded in FY98).

NCI To Commit $16M To Fund Youth Tobacco Use Research

Advisors to NCI have approved the Institute's plans to set aside $16 million over the next four years from the investigator-initiated grants budget to support research in the prevention of tobacco use by children.

The NCI Board of Scientific Advisors approved in concept a new Requests for Application at its meeting Nov. 22. The RFA concept proposes to fund eight to 10 grants, at a cost of $4 million per year for four years to "develop innovative strategies with clear implications for the immediate and significant reduction of tobacco use by children and youth in the U.S.," according to the concept statement.

The excerpted text of the concept statement follows:

Prevention of Tobacco Use by Children and Youth in the U.S. RFA concept, Prevention and Control Extramural Branch, Division of Cancer Prevention and Control. Eight to 10 awards, first-year set-aside $4 million, total $16 million over four years. Program director: Thomas Glynn.

Background: Efforts to control tobacco use and tobacco-related morbidity and mortality in the U.S. have met with reasonable success, at least through the early 1990s. Controlling tobacco use among U.S. youth has not been as successful. Although there was considerable success in reducing adolescent tobacco use in the late 1970s and early 1980s, tobacco use among high school seniors have remained essentially stable for more than a decade, with just under 20% of seniors reporting daily smoking. Furthermore, high school dropouts smoke at an alarmingly high rate. One study in Minnesota found that 77% of both male and female 16-year old dropouts smoked on a daily basis; a similar study in Ontario, Canada, found a nearly 68% smoking rate among high school dropouts.

When the high school senior tobacco use prevalence rates are considered in tandem with the dropout smoking rates, the smoking prevalence rate among U.S. adolescents nearly equals that among adults, about 25%. Smokeless tobacco use among youth, especially among males, also continues to rise. If these trends continue, the prospect for further reductions in national tobacco use prevalence rates—and accompanying tobacco-related disease rates and

economic costs—is unlikely to change substantially in the foreseeable future.

Purpose: The purpose of the research to be supported through this RFA is to develop innovative strategies with clear implications for the immediate and significant reduction of tobacco use by children and youth in the U.S. Investigators will be encouraged to take advantage of new opportunities offered by such developments as increased interest in regulation of youth tobacco use, new pharmacological products, increased knowledge of the pharmacokinetics of nicotine, and recommendations for research and action by the Institute of Medicine and others. A significant degree of interaction between NCI staff and these investigators is anticipated, particularly with regard to developing plans for the immediate and broad application of relevant results through existing mechanisms such as the American Stop Smoking Study for cancer Prevention (ASSIST).

Among the research issues of importance to this RFA are:

—What are the characteristics—pharmacological, physiological, and psychological—of nicotine dependence in its early stages and, especially, during the transition between experimental and dependent use? Are there differences in individual susceptibility to nicotine dependence among youth? What is the relationship between the characteristics of different tobacco products and early nicotine dependence? Are there pharmacological treatments from which nicotine dependent children and youth will benefit? What are the characteristics of successful nicotine dependence cessation programs for youth under age 18? How can these programs be adopted on a large scale?

—What are the factors influencing the decline in, or relative lack of involvement in, tobacco use among particular ethnic, social, religious, or racial groups in the U.S.? How can these factors be applied to the larger population of U.S. youth? Conversely, is there need for prevention programs aimed at youth subpopulations at high risk for tobacco use? Can such programs be successfully developed, evaluated, and adopted on a large scale?

—What are the factors that influence youths' responses to advertising, promotional, mass media, and warning messages aimed at discouraging tobacco use? What are factors that influence youth's responses to advertising, promotional, and mass media messages aimed at encouraging tobacco use? What are the ethnic, gender, and social class differences which influence these responses? What are the characteristics of failed and successful advertising and mass media campaigns aimed at discouraging tobacco use by children and youth?

—How do tobacco price increases, especially through higher taxes, affect youth tobacco use in comparison to the effect of prices increases on adult tobacco use?

—What is the optimal age, and circumstances, at which programs aimed at discouraging tobacco use by children and youth should begin? Is it better to focus on tobacco use alone in these programs or to include other youth-relevant health issues such as diet and exercise? What is the role of the family in discouraging tobacco use among children and youth? What is the role of the health care community?

—What is the optimal way to disseminate and implement successful youth and children tobacco prevention/cessation programs on a large scale?

NCI Grants Funding

UT Southwestern, Anderson Win Lung Cancer SPORE

Lung cancer researchers at UT Southwestern Medical Center at Dallas and the University of Texas M.D. Anderson Cancer Center have received a joint $4.5 million grant from NCI for Specialized Programs of Research Excellence (SPORE).

The grant will cover four integrated research areas as well as developmental projects and core support for three years.

The major research areas include identifying new tumor suppressor genes, studying a possible familial predisposition to lung cancer, developing new ways for the molecular detection of genetic damage in lungs from cigarette smoking and the treatment of former smokers with a new retinoid drug to prevent the development of lung cancer.

Developmental areas build on those issues and include efforts ranging from studying the genetic aspects of nicotine addiction to developing new forms of therapy to attack tumor blood vessels.

The SPORE award is the first complete joint effort between two institutions since NCI began offering the grants five years ago, the institutions said. It is one of only three SPORE grants awarded in lung cancer.

John Minna, director of the Nancy B. and Jake L. Hamon Center for Therapeutic Oncology Research, is the principal investigator of the project. Jack Roth, chairman of the Department of Thoracic and Cardiovascular Surgery at M.D. Anderson, is co-principal investigator.

"Jack Roth and I looked around the world and realized we had two of the best lung cancer research programs right here in Texas," Minna said. "We got the major investigators interested in lung cancer from UT Southwestern and M.D. Anderson together and saw the tremendous synergy of ideas, talent and energy."

"This award recognizes the stature of lung cancer research being accomplished at both M.D. Anderson and UT Southwestern," Roth said. "It also presents a unique opportunity for basic and clinical scientists to work together to take advantage more rapidly of new molecular research findings that can be applied to improved patient care."

Emphasis On Early Detection, Prevention

Minna said the main emphasis of the research will be on very early lung cancer detection and prevention. "While everyone's long-term goal is smoking cessation and the prevention of people starting to smoke, we are particularly interested in detecting and preventing the approximately 50,000 cases of lung cancer that occur in former smokers —those people who have kicked the habit," he said.

The SPORE grant also will fund smaller pilot projects to prompt new lung cancer research among young investigators, Roth said. "We have new ideas that need development," Roth said. "This grant will plant the seeds for what may grow into major cancer research projects in the future."

In Brief

City of Hope Hires Sommer To Head Molecular Genetics

(Continued from page 1)

William Hughes, vice president and chief financial officer at M.D. Anderson Outreach Corp., will become senior vice president for business development and information systems and chief executive officer for City of Hope Management Services Organization. In addition, **Steve Sommer** was named director of the Department of Molecular Genetics at the Beckman Research Institute and director of the newly formed Molecular Diagnostic Laboratory in the proposed Division of Human Genetics at City of Hope. Sommer was a professor of molecular biology, Mayo Clinic/Foundation in Rochester, MN.

Funding Opportunities

RFAs Available

RFA CA-97-001

Title: **Phase I Trials Of Anti-Cancer Agents**

Letter of Intent Receipt Date: Jan. 17

Application Receipt Date: March 12

The purpose of this RFA is to provide continued funding for a Phase I Clinical Trials Program to support scientifically directed Phase I trials of promising anti-cancer agents available through NCI from NCI's drug screening program or referred to NCI from other sources, (e.g., the pharmaceutical and biotechnology industry and academia); and to conduct pharmacokinetic and laboratory studies in support of the clinical trials such that their conduct leads to a greater understanding of the relationship between drug administration and biological changes in patients.

The Cancer Therapy Evaluation Program (CTEP) of the Division of Cancer Treatment, Diagnosis and Centers, invites cooperative agreement (U01) applications from institutions wishing to study these anti-cancer agents in Phase I Clinical Trials. Single Institution Phase I studies are preferred, although laboratory studies may be conducted by collaborators at other institutions. Strong justification and evidence of well established collaborations must be supplied for multi-institutional applications. Studies begun under a predecessor cooperative agreement may be completed under this cooperative agreement pending agreement from the NCI Program Director.

The increasing number of promising new agents with diverse and novel mechanisms of action makes it desirable to continue NCI support in this area. Institutions responding to this RFA should be able to perform Phase I trials and establish the pharmacological characteristics, in parallel with biochemical and other appropriate biological studies, of the effects of these agents on cancer cells and normal tissues. It is expected that pharmacokinetics and, where possible, other laboratory correlative studies will be conducted in real-time, throughout the course of the clinical trial to facilitate optimal utilization of the data in the design and coordination of clinical trials with the agent. Applications from any one institution may focus on studies of one or more classes of agents or therapeutic approaches, reflecting the interest, expertise, and experience of the

applicant investigators or a more general approach to the pharmacokinetic/pharmacodynamic evaluation of new agents may be developed. It is anticipated that approximately $5.5 million will be available to fund approximately 15 grants.

Inquiries: Dr. Michaele Christian, Division of Cancer Treatment, Diagnosis and Centers, NCI, 6130 Executive Blvd. Rm 734-MSC-7432, Bethesda, MD 20892-7432, tel: 301/496-5223, fax: 301/480-4663, email: christim@dct.nci.nih.gov

RFA CA-97-002
Title: **Consortium Therapeutic Studies Of Primary Central Nervous System Malignancies In Adults**
Letter of Intent Receipt Date: Jan. 24
Application Receipt Date: March 13
The Cancer Therapy Evaluation Program (CTEP) and the Radiation Research Program (RRP) of the Division of Cancer Treatment Diagnosis and Centers (DCTDC) at NCI invite applications for cooperative agreements (U01) from consortia of institutions to perform Phase I and II clinical evaluations of promising new therapeutic agents or approaches for the treatment of primary central nervous system (CNS) malignancies in adult patients, especially glioblastoma multiform and other high grade gliomas, and to perform ancillary laboratory studies of aspects of CNS tumor biology with potential clinical implications. NCI is seeking talented scientists from academic, non-profit and for-profit research organizations who will interact with other members of the consortium, and with NCI, in a concerted way to conceive, create, and evaluate new approaches to the therapy of CNS tumors. Integrated packages of individual applications are encouraged, with the lead institution of a proposed consortium indicating which participating institutions will provide organizational support, scientific leadership, laboratory capabilities, and/or patient resources. Each consortium of institutions will be referred to as a CNS Consortium (CNSC) for the purpose of this RFA. The purpose of the proposed awards is to stimulate cooperative efforts to improve treatment and to develop more effective therapies for brain tumors.

Approximately $2,200,000 in total costs per year for five years will be committed to specifically fund applications submitted in response to this RFA. It is anticipated that new and/or competing continuation awards will be made to between five and eight individual members of each of two consortia.

Inquiries: Dr. Richard Kaplan, Division of Cancer Treatment Diagnosis and Centers, NCI, 6130 Executive Blvd. Rm 734-MSC 7436, Bethesda, MD 20892-7436, tel: 301/496-2522, fax: 301/402-0557, email: kaplanr@dct.nci.nih.gov

RFA HG-97-001
Title: **Technologies for Genome Analysis**
Letter of Intent Receipt Date: Feb. 27
Application Receipt Date: March 27

The purpose of this RFA is to stimulate the development of genomic-scale technologies for the study of genome function and sequence variation. Within the next decade, it is anticipated that the complete DNA sequences of the human and numerousmodel organisms will be determined and available for comprehensive analysis. The next challenge lies in systematically decoding the genomic information, e.g., finding all the genes and understanding how their gene products function; defining common alleles and haplotypes, and associating them with phenotypes; and analyzing the conservation of genes and other features among species. Such analyses will facilitate the understanding of biological processes important in human health and disease, and the development of improved diagnoses, preventative strategies and therapies. The tools needed to analyze genomic DNA efficiently are just beginning to emerge and many more robust technologies are needed.

The Human Genome Project has been successful in generating information and resources rapidly and economically, in part, bydeveloping and applying high-throughput and efficient technologies. Therefore, the NCHGR seeks the development of technologies that canbe applied in similar ways to the rapid and efficient analysis of genome function and sequence variation.

Inquiries: Elise Feingold, Division of Extramural Research, National Center for Human Genome Research, 38 Library Drive, Room 614 - MSC 6050, Bethesda, MD 20892-6050, tel: 301/496-7531, fax: 301/480-2770, email: Elise_ Feingold@nih.gov

NCI Program Announcement

PAR-97-006
Title: **Small Grants For Therapeutic Clinical Trials Of Malignancies**
Application Receipt Dates: May 15, Sept. 15, Jan. 15

The NCI Division of Cancer Treatment Diagnosis and Centers announces a small grants program to encourage the submission of small grant applications for new therapeutic clinical trials of malignancies that take advantage of recent laboratory developments. New and experienced investigators in relevant fields and disciplines (clinical, surgical, and radiation oncology) may apply for small grants to test new treatment strategies in patients or do pilot clinical studies.

This PA supersedes PAR-95-023, Small Grants for Therapeutic Clinical Trials of Malignancies.

Inquiries: Diane Bronzert or Roy Wu, NCI DCTDC, EPN Rm 734, Bethesda, MD 20892, tel: 301/496-8866, fax: 301/480-4663, email: bronzerd@dct.nci.nih.gov or wur@dct.nci.nih.gov