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THE

# CANCER LETTER

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## Cancer Centers Lineup Complete: 11 Renewals, Funding Continued For Three, Two Unfunded

The lineup of NCI funded cancer centers is now complete after what has been the most financially difficult year in the history of the Cancer Centers Program. Sixteen centers competed for renewal of their core grants; 11 of those were awarded multiple year renewals, three received continuation funding to permit reapplication, and two are now un-

(Continued to page 2)

### In Brief

### Lame Ducks Continue On NCAB; Calabresi Elected To IOM; Ravikumar Moves To Yale

APPOINTMENTS TO fill the eight vacancies on the National Cancer Advisory Board will not be made in time for the Board's Oct. 1-2 meeting, which means that six "lame duck" board members whose terms ended last February may continue to serve, and two vacancies created more than a year and a half ago by resignations remain unfilled. The Bush Administration has been notoriously slow in filling NIH-related appointments, and the distinction continues. . . . **PAUL CALABRESI**, director of the Roger Williams Center for Cancer & Related Diseases, has been elected to membership of the Institute of Medicine at the National Academy of Sciences. Calabresi has been chairman of the Dept. of Medicine at Brown Univ. since 1974. He is also physician-in-chief at Roger Williams General Hospital. . . . **T.S. RAVIKUMAR** has been appointed director of the surgical oncology program at the Yale Comprehensive Cancer Center. Ravikumar came to Yale from Harvard Medical School, Dana-Farber Cancer Center and the New England Deaconess Hospital. Ravikumar will co-direct the new Yale Comprehensive Breast Center, along with William Hait, director of medical oncology. . . . **RETIREES:** **Thomas King** has retired as deputy director of the Vincent Lombardi Cancer Center at Georgetown Univ. Former director of NCI's Div. of Extramural Activities, King is treasurer of the American Assn. for Cancer Research and intends to complete his term in that position. **David Rall** will retire Oct. 1 as director of the National Institute of Environmental Health Sciences. A former NCI scientist, Rall also has been director of the National Toxicology Program since it was created out of NCI and NIEHS toxicology testing activities in the early 1980s. **Barth Hoogstratten**, former chairman of the Southwest Oncology Group and one of the most outspoken and sometimes controversial leaders in cancer clinical research, will retire at the end of the year. Hoogstratten has been in private practice in Cincinnati since leaving the Univ. of Kansas nearly 10 years ago.

NCI Study Finds No Greater Cancer Risk Near Nuclear Plants . . . Page 3

NCI Should Examine Alternative Therapies OTA Report Says . . . Page 5

NCI Advisory Group, Other Cancer Meetings For Oct., Nov., Future . . . Page 7

RFP Available . . . Page 8

## Cancer Centers Lineup Complete; Four Active Core Grants Cut

(Continued from page 1)

funded. One "new" core grant was awarded, to Georgetown Univ.'s Lombardi Cancer Research Center, which had a core grant that was not renewed two years ago.

The net reduction in the number of centers with active core grants is four, although that includes three that are receiving "continuation" or "phase out" money with FY 1990 funds. NCI had projected earlier this year that the reduction could be as many as five. Thus, the slide in the number of cancer centers with core grants continues, dropping to 53. NCI at one time was funding 62 or more centers, depending on how the count was made. Some centers had more than one core grant.

Funding even 12 competitive core grants required some tough measures, namely, slashing budgets from peer review recommended levels. The 12 received an average of only 81 percent of their peer review approved budgets, or in the case of the 11 renewals, their current budgets plus one percent, whichever was higher. Those reductions from recommended levels has prompted NCI Director Samuel Broder to comment that that is as much as can be cut without irreparably damaging the centers program.

Centers recompeting successfully, not reported previously by *The Cancer Letter* (July 27) were Roger Williams/Brown Univ., with Paul Calabresi as the principal investigator; City of Hope Cancer Research Center, Paul Chervenick, PI; Cold Spring Harbor Laboratory, Richard Roberts, PI; and Massachusetts Institute of Technology Cancer Center, Philip Sharp, PI.

The others previously reported were Fox Chase Cancer Center, Robert Young, PI; Temple Univ.

Carcinogenesis Program, Carlo Croce, PI; Univ. of Alabama (Birmingham) Cancer Center, Albert LoBuglio, PI; Roswell Park Cancer Institute, Thomas Tomasi, PI; Ohio State Univ. Cancer Center, David Schuller, PI; Univ. of Pennsylvania Cancer Center, John Glick, PI; Univ. of Vermont Cancer Center, Roger Foster, PI; and the Lombardi center, Marc Lippman, PI.

Those who did not receive fundable priority scores were the Univ. of Miami Sylvester Comprehensive Cancer Center (*The Cancer Letter*, Sept. 21); Case Western Reserve Univ. Ireland Cancer Center; Howard Univ. Cancer Center; Northern California Cancer Center; and Univ. of Virginia Cancer Center.

Miami's status as an NCI recognized comprehensive cancer center depends on the center getting its core grant funded within a year. Center Director Norman Altman intends to do just that.

"We are reapplying on the Feb. 1 round and are optimistic about our chances," Altman told *The Cancer Letter*. "A lot of things have changed since the last review." The center's cancer control and outreach efforts received "high marks" in the review, largely because of "our model system for collaborations with local health departments and the Florida Dept. of Health & Human Services," he said.

Altman said he is confident that weaknesses in other areas can be overcome with some staff recruitments.

Miami has not yet been reviewed for comprehensiveness under the new guidelines, but is preparing that application along with its core grant. The comprehensive review will follow by one round the core grant review.

Meanwhile, the university has committed additional funds to the Sylvester center to make up for the shortfall in the core grant, and work is proceeding on the new cancer research facility funded by a grant from the Sylvester family and additional university support.

Case Western Reserve's Ireland Cancer Center also definitely will reapply Feb. 1, Director Nathan Berger said. He, too, is confident the grant will be funded next time around. His "phase out" funding was at the full level of the previous year, somewhat unusual for a grant which did not make the priority score payline.

Margaret Holmes, chief of NCI's Cancer Centers Branch, objects to the term "phase out."

"I prefer to call it 'continuation funding,'" Holmes said. "In nearly every case, the center intends to reapply. The money is intended to help them hold things together until they do, not just to assist them in closing down."

### THE CANCER LETTER

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The Univ. of Virginia Cancer Center, in Charlottesville, also plans to reapply and is receiving continuation money this year.

Two other centers, however, definitely will not reapply in the next round, and it may be awhile before they come back in.

Howard Univ. had been part of the Georgetown/Howard Comprehensive Cancer Center, so recognized by NCI in the mid-1970s in the early days of the comprehensive cancer center program. But Georgetown, and then Howard failed to get their core grants renewed, and eventually, NCI withdrew the comprehensive recognition. Georgetown stayed out of the competition for a year and then came back successfully. It is possible that Georgetown (Vincent Lombardi Cancer Research Center) will eventually win back the comprehensive status on its own.

Howard, however, probably will not try for that, although Center Director Kenneth Olden indicated he will compete again for a core grant. After failing to get a fundable score last year, Howard received continuation funding and reapplied, once again not meeting the payline.

"We will try to regroup, although it is highly unlikely we will recompute as a comprehensive center," Olden said. "We don't have the critical mass across the board." The center is doing an internal evaluation, "to identify what we can do well."

The review committee concluded that Howard's strength is in basic science, and "they also recognized that we had done fairly well in community outreach," Olden said. But the center lacks good cancer control programs and epidemiology, was judged in peer review as inadequate in clinical research.

Olden noted that the other three black medical schools--Drew, Meharry, and Morehouse--have NCI funding as cancer centers but primarily for cancer control. "I think we could be a good cancer control research center. We've built a good infrastructure to do that. It is highly likely that we will go that way."

Olden added that "I want to make it clear, losing our core grant is unfortunate. We should have a good clinical program to go with our solid basic science. We ought to be on the cutting edge of clinical research, doing state of the art research. We don't accept that we will forever remain uncompetitive in those areas. I'm disappointed, but I do accept the verdict of peer review."

The review committee disapproved Howard's clinical program, "although that doesn't mean our patients aren't getting good cancer care," Olden said. "They are. But although we participate in some cooperative clinical trials, we don't have many institutional trials,

and we aren't doing anything in the designated high priority trials. Our big need is to recruit some good people. There is no substitute for talent. We do have some good people here, but we need a few more. We need to make a crucial appointment or two."

Northern California Cancer Center, a consortium of Stanford, Univ. of California (San Francisco), and hospitals and other institutions, had failed last year to get a fundable priority score. When the application this time was also unfundable, NCI offered NCCC a second year of "phase out" money, but the center declined it.

"With that sort of notion, the government would be paying us to close our doors," NCCC Director Thomas Davis said. "We didn't think that was appropriate."

NCCC has no intention of closing its doors. Member institutions increased their commitments, and the center has a budget of \$5.3 million for its fiscal year of July 1, 1990, to June 30, 1991. "We're still in business, and we have a good budget, to do what we have to do."

On reapplying, "We can't keep beating our heads against the wall," Davis said. "We may follow the example of Georgetown, which stayed out a couple of years and lived to fight another day."

Holmes also cited the examples of Georgetown and Ohio State Univ. as centers "which turned things around" in a relatively short time.

Brian Kimes, director of the Centers, Training, & Resources Program in the Div. of Cancer Biology, Diagnosis, & Centers, repeated his promise to work with the centers "any way we can" to help them restore their grants. "We don't want to lose any centers. We need them all."

## No Increased Risk Of Cancer Near Nuclear Facilities, NCI Study Says

An NCI study released last week claims people living near nuclear facilities do not face an increased risk of death from cancer due to radiation.

"From the data at hand, there was no convincing evidence of any increased risk of death from any of the cancers we surveyed due to living near nuclear facilities," said John Boice, chief of NCI's Radiation Epidemiology Branch.

The three-year, \$600,000 study examined deaths from 16 types of cancer for the populations living in the U.S. counties containing or adjacent to 62 nuclear facilities. The study focused on 52 commercial nuclear power plants, nine Dept. of Energy research and weapons plants and one commercial fuel reprocessing plant whose operations began before 1982.

The study compared the cancer death rates of the 107 counties with nuclear facilities before and after operation began to rates in the 292 counties nearby for the years between 1950 and 1984. The neighboring counties were chosen for their comparable socioeconomic factors such as income and education.

The NCI study shows that some nuclear counties have higher rates of cancer deaths than non-nuclear counties but also that some actually have a lower rate than their non-nuclear neighbors.

Some health interest groups immediately attacked the study, saying it was incomplete and does not erase concern for health risks at the DOE's production centers, in particular.

David Lewis, director of public affairs for Physicians for Social Responsibility, said the study "raises more questions than answers."

"This is not a clean bill of health at all--these findings merit much more in-depth study," Lewis said.

The Ad Hoc Advisory Committee to the study called the study's treatment of the data "quite satisfactory," but said many more areas need further attention.

The committee said further study should be more narrowly focused on smaller population groups living in the immediate area of the facility and also the cancer rates of workers in the nuclear facilities themselves.

Lewis agreed, saying NCI needs to carry out a "more sensitive assessment," of areas around the facilities and called for the release of DOE records on the health of facility workers.

Boice said he agrees with Lewis "100 percent," that studies on facility workers would prove useful but pointed out that the radiation data for individual nuclear power plant workers are not yet available. He said NCI will conduct studies similar to the new one every five years, next time including the facilities having begun operation through 1989.

The study is the first of its kind conducted by the U.S. government to examine the cancer rates of citizens living near nuclear facilities. It started in 1987 after a report by the British Office of Population Censuses and Surveys showed an excess of deaths from childhood leukemia near some nuclear facilities in England and Wales.

Although the British survey did not show a general increase of cancer risk near nuclear facilities, it did report a 350 percent increase in childhood leukemia near the Sellafield nuclear fuel processing plant.

Like the British report, the NCI study showed no overall increase in cancer risk near nuclear facilities. The study says cancer death rates only climbed a "random" 1 percent while the rate for leukemia in the

nuclear counties fell by 4 percent.

The counties surrounding the DOE plants witnessed a drop of 39 percent in childhood leukemia and a 2 percent drop in other cancers at all ages since before the facilities began their operation, the study found.

Advocates of the commercial nuclear energy industry jumped to support the study's findings as "not surprising."

"This study, which is broader in scope than any previous assessment, should put the public at ease that living near a nuclear plant is not harmful to their health," the U.S. Council for Energy Awareness, an industry group, said in a statement released last week.

But the NCI study did find at least one rise in death rates from childhood leukemia in New London County, CN, the area surrounding the Millstone Nuclear Power Plant. A 304 percent increase in leukemia deaths for children under the age of 10 was recorded near Millstone since the plant began its operations in 1970.

Upon review, however, the study said the excess rates were due in part to low cancer rates in the surrounding counties being compared to New London County.

Physicians for Social Responsibility and the Nuclear Information and Resource Service, an anti-nuclear energy group, pointed out several limitations of the study. First, the study focuses on cancer deaths, not the number of cancer cases. Second, the study is not based on death certificates from the immediate area of the facility but on entire counties, including large cities that would not be affected by the nuclear facility in question. Third, many of the facilities only recently began operation so that many types of cancer have not had time enough to develop for detection by the study.

In addition, the study did not account for people who may have gotten cancer and moved out of the county or sought treatment in another county and died there. Also, many death certificates list only the immediate cause of death rather than the underlying cause which could have been cancer.

An NCI press release acknowledged that the study has flaws, but stressed it is "an initial step" in assessing the health risks to people living near nuclear facilities.

Boice agreed the study has its "limits," but said county mortality studies have been successful in the past in drawing "cancer maps" for other types of cancer. He points to the NCI study done in the 1950's of lung cancer deaths due to arsenic emissions from nearby smelters and asbestos exposure in shipyards. In addition, mortality data is not available for areas



smaller than counties, he said.

"Although the study is limited, in the past it has been successful in identifying hot spots and why counties have high rates of cancer," Boice says. "No study can prove the absence of an effect. But if any excess cancer risk due to radiation pollution is present in counties with nuclear facilities, the risk is too small to be detected by the methods used."

Seymour Jablon served as the principal investigator of the study, along with Boice. Jablon is an expert in the Div. of Cancer Etiology's Radiation Epidemiology Branch.

The study examined 2.7 million death certificates and surveyed 16 types of cancer including leukemia, Hodgkin's disease, multiple myeloma, cancer of the stomach, colon and rectum and liver, cancer of the trachea, bronchus, and lung, breast cancer, thyroid cancer, cancer of the bone and joints, bladder cancer, brain and other central nervous system cancer and other benign or unspecified tumors.

Copies of the report, "Cancer In Populations Living Near Nuclear Facilities" are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. List the report's stock no. 017-042-00276-1. Price \$40 for the two volume set.

## Evaluation Of Unconventional Cancer Treatments Warranted, Study Says

Unconventional cancer treatments do not deliver the dramatic successes that supporters often claim, but the federal government, through NCI, could do more to provide information on unconventional treatments and should devise ways to evaluate these treatments, a government study says.

According to the report, "Unconventional Cancer Treatments," released last week, the Congressional Office of Technology Assessment found the claims of dramatic success for these treatments to be unsupported by the available evidence.

OTA examined treatments based on psychological and behavioral approaches, dietary manipulation, and use of herbal, pharmacologic and biologic substances. Only the area of psychological approaches stands out as one in which well-designed studies are beginning to be carried out, with some encouraging results, but the claims are far more extravagant than the evidence can support, OTA said.

The OTA study was done at the request of the House Committee on Energy & Commerce, which asked the nonpartisan agency to examine the subject of unconventional cancer treatments. OTA also received

letters signed by 42 members of Congress asking for an assessment of "immuno-augmentive therapy," which was sparked by the 1986 closing of a clinic in the Bahamas run by IAT inventor Lawrence Burton.

Then-Rep. Guy Molinari of New York, among whose constituents were a number of clinic patients, asked his colleagues to sign letters of request to OTA concerning IAT.

In response to the congressional interest, OTA undertook a case study to develop a protocol for a clinical trial to study the efficacy and safety of IAT. After initially accepting the plan, Burton rejected it and offered no scientifically acceptable alternative.

NCI has not yet prepared a formal response to the OTA report. However, members of the National Cancer Advisory Board expressed their concerns at a board meeting last February at which OTA presented its findings on IAT. When OTA suggested that NCI do more to study unconventional treatments, board members said they were concerned that the agency was requesting "two types of scientific methods" (The Cancer Letter, Feb. 9).

The OTA study found that a wide cross-section of Americans make use of unconventional treatments, and with the emphasis in the past decade on patients taking a more active role in their treatment decisions, many patients are exploring all available options. Many find unconventional treatments attractive, OTA said, because of the discomfort associated with conventional treatments, and the lack of attention to quality of life. Most patients using unconventional treatments have run the course of available mainstream treatments either before trying them or along with them, the OTA report said.

Little productive dialogue has taken place between "mainstream" and the "alternative" medicine, the OTA report said. The two groups are highly polarized. In addition, health insurance policies generally do not pay for unconventional treatments, but many patients are using the legal system to challenge insurers. Treatment costs vary, but most of the major clinics charge between \$5,000 and \$40,000 for an "average" treatment course, the report said.

In the report, OTA examines the best known and most controversial unconventional treatments, including the Gerson and Kelley dietary regimens, the macrobiotic diet, antineoplastons, "biologically guided chemotherapy," IAT, the Hoxsey herbal treatments, the Livingston-Wheeler treatment, vitamin C and laetrile.

In a recommendation that may come under fire in "mainstream" circles, the report concludes that the federal government should provide technical assistance to "alternative" physicians in undertaking scientifically

credible studies of unconventional treatments.

Following are the report's major recommendations:

►To broaden the base of information on the use of unconventional cancer treatments in the U.S., OTA suggests the federal government fund studies on the characteristics and motivations of cancer patients who use unconventional treatments. "Utilization studies" also should be done to determine the types of unconventional cancer treatment used in the U.S. and the extent of use.

►In order to gather and make available information on unconventional cancer treatments, OTA said, "NCI could have the Cancer Information Service and Cancer Communications Office evaluated for the adequacy and quality of information it supplies about widely used unconventional cancer treatments in relation to the information requirements of its users."

►According to OTA, NCI has a "mandated responsibility" to pursue information about and facilitate examination of widely used unconventional cancer treatments. In the past, OTA said, NCI has reacted to reported problems or as a result of congressional pressure rather than seeking out information on these treatments. OTA said various sections of NCI might undertake efforts to examine some treatments. NCI could screen appropriate components of unconventional treatments, OTA said.

►"NCI could develop and circulate widely specifications for a simple process for assembling 'best case' series [of unconventionally treated patients] in a form that might be acceptable for publication in the peer reviewed literature. NCI might consider providing for a meeting with the preparer after the review has been completed, to discuss the review, for the purpose of minimizing avoidable ambiguities or misunderstandings."

►"NCI could provide funding to recruit and support a small group of consultant experts in evaluation methodology to advise unconventional practitioners or their advocates who which to plan and carry out evaluations. These could range from advising on plans for 'best case' series to planning randomized trials, when appropriate. These consultants could also assist with filing IND applications, should evaluation reach that stage." NCI could contract with a university or other organization to direct the consultant group.

►The federal government, through NCI or another office, could provide funds for evaluating unconventional cancer treatments for a limited time, OTA said. "A review committee could be established to review proposals for evaluations, which would have to meet appropriate methodologic standards. The committee should include both mainstream scientists

or physicians and those identified with unconventional treatments. Four years might be an appropriate time period.

"If implemented, the program should be evaluated after three or four years to determine whether the mechanism has stimulated worthwhile evaluative efforts, and whether it should be continued. Funds would have to be large enough to provide for a fair test of the program, but the government would need to limit the amount to reasonable levels until the value of such an effort is demonstrated.

"During the first phase, research proposals would be solicited and reviewed. The review committee would be funded in this phase, but no actual research funds would be allocated. Estimates of annual funding requirements for phase two would be based on the quantity and quality of proposals received during the first phase.

►"The government could maintain a registry for reports of documented tumor regressions that follow unconventional treatment in circumstances where the regression cannot plausibly be ascribed to the effects of previous or concurrent conventional treatments, and for regressions occurring in the absence of any treatment. Criteria for documentation of cases would be specified." This could also be of value to further knowledge about spontaneous remissions, OTA said.

►"The government could maintain a registry for reports of documented adverse effects of unconventional cancer treatments (and of unconventional treatments in other major disease). Currently, physicians are required to report adverse reactions to prescription drugs, but no such requirement exists for unapproved substances. Criteria for acceptable cases would be specified."

►"A federal and state effort to assemble and make publicly available information on practitioners of unconventional cancer treatments who have been convicted for practicing medicine without a license."

OTA said it took "several unusual measures" during the course of its study. A project advisory panel, chaired by Rosemary Stevens of the Univ. of Pennsylvania, played a key role. Representatives from mainstream and alternative medicine were members of the panel. OTA also formed a working group on IAT. Former NCI Deputy Director Maryann Roper was among the members of the working group.

Copies of the 312-page OTA report, "Unconventional Cancer Treatments," may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The GPO stock number is 052-003-01207-3; price \$14.

## NCI Advisory Group, Other Cancer Meetings For Oct., Nov., Future

**National Cancer Advisory Board**--Oct. 1-2, NIH Bldg. 31 Rm 6: Open 8 a.m.-noon Oct. 1 and 8 a.m.-adjournment Oct. 2.

**NCAB Information & Cancer Control for Year 2000 Committee**--Oct. 1, NIH Bldg. 31 Rm 8, immediately following the NCAB meeting.

**NCAB AIDS Committee**--Oct. 1, NIH Bldg. 31 Rm 9, immediately following NCAB meeting.

**NCAB Planning & Budget Committee**--Oct. 1, NIH Bldg. 31 Rm 7, 6 p.m.

**Harvard Medical School Urologic Cancer Course**--Oct. 1-3, Boston, MA, Four Seasons Hotel. Contact Harvard Medical School, Dept. of Continuing Education, Boston, MA 02115, phone 617/432-1526.

**Southwest Oncology Group**--Oct. 2-4, Columbus, OH, Hyatt Regency Columbus. Contact Marjorie Godfrey, SWOG, 5430 Fredericksburg Rd No. 618, Oak Hills Tower Bldg., San Antonio, TX 78229-6197, phone 512/366-9300.

**World Congress on Gestational Trophoblastic Disease**--Oct. 3-5, London, UK. Contact Dr. J.J. Gallai-Hatchard, Cancer Research Campaign Laboratories, Dept. of Medical Oncology, Charing Cross Hospital, Fulham Palace Rd, London W6 8RF, UK.

**Univ. of Chicago Current Issues in Breast Cancer Management**--Oct. 4-6, Chicago, IL. Contact Center for Continuing Medical Education, Univ. of Chicago, 312/702-1056.

**Pheresis Conference**--Oct. 4-6, Houston, TX. Contact Jeff Rasco, Conference Services, M.D. Anderson Cancer Center, phone 713/792-2222.

**International Society of Pediatric Oncology Annual Meeting**--Oct. 6-9, Rome, Italy. Contact Meeting Services BV, J.W. Brouwersplein 27, PO Box 5090, 1007 AB Amsterdam, The Netherlands.

**American College of Surgeons Clinical Congress**--Oct. 7-12, San Francisco, CA. Contact Frank Arado, ACOS, phone 312/664-4050.

**Growth Factors in The 1990's: Uses & Development**--Oct. 10, Cleveland, OH. Contact Cleveland Clinic Educational Foundation, Dept. of Continuing Education, 9500 Euclid Ave. TT31, Cleveland, OH 44195-5241, phone 216/444-5696 or 800/762-8173.

**Society for Complex Carbohydrates Annual Meeting**--Oct. 10-13, La Jolla, CA. Hyatt Regency. Contact Cass Jones, Professional Conference Management, 7916 Convoy Ct., San Diego, CA 92111, phone 619/565-9921.

**Advances in Oncology: Applications in Patient Care**--Oct. 11-13, Lexington, KY. Radisson Plaza Hotel. Contact Markey Cancer Center, phone 606/257-4500.

**Assn. of Community Cancer Centers Fall Leadership Conference**--Oct. 11-13, Las Vegas, NV. Contact ACCC, 11600 Nebel St., Suite 201, Rockville, MD 20852, phone 301/984-9496.

**Immunology in the 21st Century**--Oct. 11-12, New York City, Plaza Hotel. Contact Slack Inc., Irvington symposium coordinator, 6900 Grove Rd., Thorofare, NJ 08086, phone 1-800-257-8290.

**Toward 2000 VI**--Oct. 12-13, Philadelphia, PA. Contact Fox Chase Cancer Center, 215/728-2700.

**Markey Cancer Center Symposium**--Oct. 12-13, Lexington, KY. Contact Karen Christian, 606/257-4500.

**Chromosomal Growth Factor Abnormalities in Leukemia**--Oct. 14-18, Chatham, MA. Contact American Assn. for Cancer Research, Public Ledger Bldg. Suite 816, 6th & Chestnut Sts., Philadelphia, PA 19106, phone 215/440-9300.

**Biometry & Epidemiology Contract Review Committee**--Oct. 15-16, Executive Plaza North Rm H. Open 9 a.m.-10 a.m. Oct. 15.

**American Society for Therapeutic Radiology & Oncology**--Oct.

15-18, Miami Beach, FL. Contact ACR, 1891 Preston White Dr., Reston, VA 22091, phone 703/648-8900.

**International Conference of Anticancer Research**--Oct. 16-20, Marathon, Greece. Contact Anticancer Research, 5 Argyropoulou St., Kato Patissia, Athens 11145, Greece.

**International Congress of the European Assn. for Palliative Care**--Oct. 17-19, Paris, France. Contact Unite de Soins Palliatifs, Hopital International de l'Universite, 42 Boulevard Jourdan, 75674 Paris Cedex 14, France.

**NCI Div. of Cancer Prevention & Control Board of Scientific Counselors**--Oct. 18-19, NIH Bldg. 31 Rm 6. Open 8:30 a.m.-recess on Oct. 18 and 8:30 a.m.-adjournment on Oct. 19.

**NCI Div. of Cancer Biology, Diagnosis & Centers Board of Scientific Counselors**--Oct. 22, NIH Bldg 31 Rm 10. Open 8:30 a.m.-4:30 p.m.

**NCI Div. of Cancer Treatment Board of Scientific Counselors**--Oct. 22-23, NIH Bldg. 1 Wilson Hall. Open 8:30 a.m.-recess Oct. 22 and 8:30 a.m.-adjournment Oct. 23.

**NCI Div. of Cancer Etiology Board of Scientific Counselors**--Oct. 25-26, NIH Bldg. 31 Rm 10. Open 1 p.m.-recess Oct. 25 and 9 a.m.-adjournment Oct. 26.

**Inter-Science Conference on Antimicrobial Agents & Chemotherapy**--Oct. 21-24, Atlanta, GA. Contact American Society of Microbiology, 202/737-3600.

**Negative Controls on Cell Growth & Their Breakdown During the Pathogenesis of Cancer**--Oct. 21-25, Cape Cod, MA. Contact American Assn. for Cancer Research, 215/440-9300.

**President's Cancer Panel**--Oct. 22, Providence, RI. Roger Williams Medical Center, Brown Univ., Kay Auditorium, 825 Chalkstone Ave. Open 8:30-noon.

**Antigen & Clone Specific Immunoregulation**--Oct. 22-24, New York City. Contact Conference Dept, New York Academy of Sciences, 212/838-0230.

**Human Genome Conference**--Oct. 22-24, San Diego, CA. Contact Jefferey Teramani, American Assn. for the Advancement of Science, 202/326-6440.

**14th Cancer Symposium/10th Cancer Symposium for Nurses**--Oct. 22-24, San Diego, CA. Sheraton Harbor Island Hotel. Contact Meeting Management, Cancer Symposium, 5665 Oberlin Dr. #110, San Diego, CA 92121.

**Antigen & Clone Specific Immunoregulation**--Oct. 22-24, New York City, Vista International. Contact Conference Dept., New York Academy of Sciences, 2 E.63rd St., New York, NY 10021, phone 212/838-0230.

**Illinois Cancer Council Conference**--Oct. 24, Chicago, IL. Contact Patti Jelen, the Illinois Cancer Council, phone 312/346-9813.

**Oncology Nursing Society Fall Institute**--Oct. 26-28, Chicago, IL. Contact ONS National Office, phone 412/921-7373.

**American Society of Clinical Oncology Fall Conference**--Oct. 26-28, Anaheim, CA. Contact ASCO, 435 N. Michigan Ave. Suite 1717, Chicago, IL 60611, phone 312/644-0828.

**Autologous Bone Marrow Transplantation**--Oct. 26, Portland, OR. Contact Pat Meyers, Columbia River Oncology Program, 4805 NE Glisan, Portland, OR 97213.

**Developmental Therapeutics Contracts Review Committee**--Nov. 1-2, NIH Executive Plaza North Rm J, open 8 a.m.-9 a.m. on Nov. 1.

**Oncology in China**--Nov. 1-5, Beijing, China. Contact U.S. Organizing Committee, 8839 Knox Ave., Skokie, IL 60076, phone 708/676-9891.

**Hematologic Growth Factors in Breast Cancer**--Nov. 1, San Antonio, TX. Contact Lois Dunnington, Cancer Therapy & Research Center, 4450 Medical Dr., San Antonio, TX 78229, phone 512/567-4745.

**San Antonio Breast Cancer Symposium**--Nov. 2-3, San Antonio, TX. Contact Lois Dunnington, Symposium Coordinator, 512/567-4745.

**Current Controversies in Colon & Rectal Cancer**--Nov. 3, Research Triangle Park, NC, Sheraton-Imperial Hotel. Contact Nancy Barnes, Office of Continuing Medical Education, Campus Box 7000, Univ. of North Carolina, Chapel Hill, NC 27599, phone 919/962-2118.

**Clinical Conference And Special Pathology Program**--Nov. 3-7, Houston, TX. Contact M.D. Anderson Cancer Center, Conference Services, 713/792-2222.

**Monoclonal Antibodies and Breast Cancer**--Nov. 5-6, San Francisco, CA. Contact Carolyn Klinepeter, John Muir Cancer & Aging Research Institute, 2055 N. Broadway, Walnut Creek, CA 94596, phone 415/943-1182.

**Chemotherapy Foundation Symposium IX: Innovative Cancer Chemotherapy for Tomorrow**--Nov. 7-9, New York City, Sheraton Centre Hotel. Contact Jaclyn Silverman, Div. of Medical Oncology, Box 1178, Mount Sinai School of Medicine, One Gustave Levy Place, New York, NY 10029, phone 212/241-6772.

**Neuro-Oncology Update**--Nov. 8-10, New York City. Contact Roberto Fuenmayor, CME Office, Memorial Sloan-Kettering Cancer Center, 1275 York Ave., New York, NY 10021, phone 212/639-6754.

**International Conference on Lung Cancer**--Nov. 9-10, Boston, MA. Contact Dept. of Continuing Medical Education, Boston Univ. School of Medicine, 80 E. Concord St., Boston, MA 02118, phone 617/638-4605.

**Cancer Management Course**--Nov. 9-10, Philadelphia, PA. Contact Dr. Harvey Lerner, American College of Surgeons, Cancer Dept., 55 E. Erie St., Chicago, IL 60611, phone 312/664-4050.

**Neurological Adverse Reactions to Antineoplastic Chemotherapy**--Nov. 13-14, Florence, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

**Radioimmunodetection and Radioimmunotherapy of Cancer**--Nov. 15-17, Princeton, NJ. Contact Lois Gillespie, Center for Molecular Medicine & Immunology, 1 Bruce St., Newark, NJ 07103, phone 201/456-4600.

**Prostate Ultrasound Seminar**--Nov. 17-18, Laguna Niguel, CA. Contact DCMI, PO Box 2508, Ann Arbor, MI 48106, phone 313/665-2535.

**In Vitro Toxicology Mechanisms & New Technology**--Nov. 27-29, Baltimore, MD. Contact International CAAT Symposium, Office of Continuing Education, 720 Rutland Ave., Turner Bldg., Baltimore, MD 21205-2195, phone 301/955-2959.

**Clinical Oncological Society of Australia Annual Meeting**--Nov. 28-30, Melbourne, Australia. Contact L.A. Wright, GPO Box 4708, Sydney NSW, Australia.

**Frederick Cancer Research Center**--Nov. 29-30, Frederick, MD. FCRC Executive Bldg. 549, Executive Board Room. Open 8:30-10:15 a.m. on Nov. 29.

#### FUTURE MEETINGS

**International Conference on Cancer Prevention: Facts, Uncertainties, and Prospects**--Feb. 12-13, 1991, NIH Lister Hill Auditorium, Bethesda. Contact Coordinating Council for Cancer Research,

**St. Joseph's Cancer Institute Cancer Conference**--Feb. 15-16, Tampa, FL. Contact St. Joseph's, 3001 W. Buffalo Ave., Tampa, FL 33677, phone 813/870-4991.

**Membrane Transport in Multidrug Resistance, Development & Disease**--March 10-14, Banff Centre, Banff, Alberta, Canada. Contact American Assn. for Cancer Research, Public Ledger Bldg. Suite 816, Sixth & Chestnut Sts., Philadelphia, PA 19106, phone 215/440-9313.

**American Cancer Society Conference on Colorectal Cancer**--

March 20-22, New Orleans, LA. Contact ACS, 1599 Clifton Rd. NE, Atlanta, GA 30329, phone 404/329-7606.

**Hematopoietic Cell Regulation and Its Clinical Application in Bone Marrow Transplantation**--April 26-27, Detroit, MI. Contact Dr. Lyle Sensenbrenner, Div. of Hematology & Oncology, Dept. of Medicine, Wayne State Univ., PO Box 02188, Detroit, MI 48202, phone 313/745-8853.

**Oncology Nursing Society Annual Congress**--May 8-11, San Antonio, TX. Contact ONS, 1016 Greentree Rd., Pittsburgh, PA 15220-3125.

**Critical Issues in Tumor Microcirculation, Angiogenesis & Metastasis: Biological Significance & Clinical Relevance**--June 3-7, Pittsburgh, PA. Contact Hilda Diamond, Biomedical Engineering Program, Carnegie Mellon Univ., Pittsburgh, PA 15213, phone 412/268-2521.

## RFPs Available

Requests for proposals described here pertain to contracts planned for award by the National Cancer Institute unless otherwise noted. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs, citing the RFP number, to the individual named, the Executive Plaza South room number shown, National Cancer Institute, Bethesda MD 20892. Proposals may be hand delivered to the Executive Plaza South Building, 6130 Executive Blvd., Rockville MD. RFP announcements from other agencies will include the complete mailing address at the end of each.

### RFP NCI-CM-17527-49

Title: Development of novel drug formulation and delivery systems for anti-tumor and anti-AIDS agents

Deadline: Approximately Dec. 17

The National Cancer Institute, Div. of Cancer Treatment, Developmental Therapeutics Program, Pharmaceutical Resources Branch, is interested in receiving proposals from organizations who have innovative research ideas concerning improving intravenous delivery and other routes of administration of chemotherapeutic agents. It is anticipated that two cost reimbursement incrementally funded type contracts for a period of three years each beginning approximately June 1991 will be awarded.

A workload per year of one to two compounds having diverse chemical structures of either natural or synthetic origin is anticipated. The contractor's studies will be directed towards solving specific deliverability and/or stability problems culminating in an acceptable dosage form prepared on laboratory scale. The contractor will deliver to NCI small quantities (less than 50 units) of the experimental formulated products for preliminary evaluation for efficacy and toxicity in rodents.

The principal investigator should possess a PhD in chemistry, pharmacy or a related discipline, and have extensive experience with the development of novel drug delivery systems. The contractor should be experienced with drug analysis procedures including UV, NMR and infrared spectroscopy, plus the development of stability indicating assays using high performance liquid chromatography.

The contractor should have access to the necessary analytical equipment to perform the required work, including animal facilities for biologic evaluation. This procurement is unrestricted. The standard industrial classification code is 8731.

Contract Specialist: Sandra Lehner

RCB Executive Plaza South Rm 603  
301/496-8620