THE CANCER LETTER

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NCAB Votes Down Dietary Fat Study In Women; Proposal Highly Recommended By Study Section

The National Cancer Advisory Board voted in closed session last week not to fund a study of the relationship of dietary fat to the incidence of cancer and heart disease in older women, against the favorable recommendation of a special study section which assigned the proposal a priority score of

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In Brief

Baquet Heads Cancer Control Science Program; Joftes, Davignon To Retire; Schepartz Returns

STAFF CHANGES at NCI: **Claudia Baquet** was selected associate director of NCI's Cancer Control Science Program in the Div. of Cancer Prevention & Control; **David Joftes,** chief of the Contracts Review Branch in the Div. of Extramural Activities, is retiring Oct. 1; **Paul Davignon** has departed as chief of the Pharmaceutical Resources Branch and will retire Oct. 1; **Michelle** Evans was appointed special assistant for minority affairs; **Kenneth Paull** was appointed chief of the Information Technology Branch; **Richard Costlow** has been designated acting associate director of the DCPC Cancer Prevention Research Program; **Brenda Edwards** was appointed acting associate director of the Surveillance Program; **Benjamin Hankey** was appointed chief of the Cancer Statistics Branch in the Surveillance Program. . . . **SAUL SCHEPARTZ,** who left NCI in 1984 for a position with the New Jersey Univ. of Medicine & Dentistry, has returned to the Div. of Cancer Treatment. Shepartz was appointed DCT deputy director in 1976, and before that headed Drug, Research & Development, predecessor of DCT's Developmental Therapeutics Program. He is working as special assistant to DTP Director Michael Boyd. . . . **DOROTHY TISEVICH** has been hired as NCI's legislative liaison. Tisevich is in the office of the assistant secretary for management and budget in HHS. In a previous job she was the departmental administrative officer in DCT. . . . **LUCIUS SINKS,** former chief of NCI's Cancer Centers Branch, received a certificate of appreciation from the Assn. of American Cancer Institutes for "notable service to the cancer centers in helping to save lives from cancer." . . .**ARMAND HAMMER'S** STOP Cancer project has made two contributions to the NCI Director's Gift Fund. The first, a gift of $158,000, donated by Leonard Abramson, will be directed to basic research. The second, a gift of $250,000 by Lawrence and Selma Ruben, will support research in biologic treatments.

Concerns About Women's Health Trial Haunted Proposed Prevention Study

(Continued from page 1)
152 and a percentile of 13.2, The Cancer Letter has learned.

Some of the same questions that plagued the Women's Health Trial, the large study of the relationship of dietary fat to breast cancer that was stopped last year by the Div. Cancer Prevention & Control Board of Scientific Counselors, resurfaced in the discussion of the proposed new trial at the closed NCAB session, according to a source who was present at the meeting. The cost of the trial also appears to have been a factor in the NCAB's decision.

The RO1 investigator initiated proposal, called the Dietary Fat Intervention Trial in Women, or "Diet FIT" for short, was recommended by the study section to have direct costs of $60 million over five years, or $12 million a year.

The trial proposed to study 24,000 women aged 55-69 drawn from 12 collaborating centers. The trial design was to randomize 40 percent of the women to a low fat diet, in which fat is reduced from about 40 percent of caloric intake to 20 percent. The other 60 percent of the women, the control group, would stay on their regular diets.

The trial was intended to test the hypothesis that over the 10 year study period, the subjects will show a reduction in the in the incidence rate of breast, colon, rectal, ovarian and endometrial cancers and coronary heart disease, in the range of 10 to 30 percent, depending on the disease. The investigators also predicted a reduction in total mortality of 10 percent.

In addition, the trial was designed to provide data on other questions, such as the ability to achieve and document long term compliance to the dietary intervention, the identification of effective approaches to achieving the dietary goals, the prediction of compliance through behavioral measures, and the effect of a low fat diet in relation to patient survival following a cancer.

The principal investigators were Ross Prentice, director of public health sciences at the Fred Hutchinson Cancer Research Center in Seattle, and Maureen Henderson, head of the cancer prevention program at the center. Henderson was the principal investigator on the WHT. Curt Furberg, director of public health sciences at Wake Forest School of Medicine, was the lead investigator for the coronary heart disease portion of the study.

The trial was reviewed in July by a special review committee headed by former NCAB chairman Henry Pitot, director of the McArdle Laboratory at the Univ. of Wisconsin. Among other prominent members of the committee were Louis Bernard, dean of the Meharry Medical School; Thomas Burish, chairman of the psychology department at Vanderbilt Univ.; Gary Clark, a professor of medicine at the Univ. of Texas Health Sciences Center; Mary Costanza, an oncologist and director of the Univ. of Massachusetts Medical Center; Ronald Prineas, chairman of the epidemiology department at the Univ. of Miami; Edward Fisher Jr., a nationally recognized psychologist; and Pelayo Correa, pathology professor at Louisiana State Univ.

The review committee's report, or "pink sheet," which Henderson released to The Cancer Letter, listed the scientific merits of the study as "good to outstanding," despite the complicated study design. It gave the proposal a priority score of 152 and a percentile of 13.2. Presently, NCI is funding projects up to the 20th percentile.

"The special review committee believes this project is timely and important for addressing chronic disease and gerontological aspects in older women," the pink sheet said. "The Diet FIT provides as good an opportunity as possible to evaluate fat vs. chronic disease in the foreseeable future as the public becomes more health conscious of fat in the diet."

The reviewers noted that the proposal was not devoid of difficulties. "In general, the overall plan is excellent despite the high scientific risk. Problems which will arise during the study include compliance of subjects and a possible weak statistical outcome, such as no individual effect seen in some cancer endpoints. "The age group to be

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studied for cancer prevention is older than ideal, considering the natural history of several of the cancers involved, including breast cancer. Effects from the trial cannot be directly related to one or the other factors of fat, calories or other dietary components since the trial is not structured to separate such effects. For several areas, the power of the study may be somewhat borderline, although the combined endpoints could increase the power or even complicate the study.

"Nonetheless, this application addresses a pressing scientific problem in human biology and disease, and the findings, if convincingly positive or negative, will be very important. The group of investigators are outstanding, and have had experience in several trials in the past, including the WHT.

"Based on the importance of the problem, the background developed by this and other groups, and the high level of expertise of the investigators in this application, approval is recommended. The scientific merit is judged to be good to outstanding."

Later in the pink sheet, the reviewers note that, "The study may be described as a 'high risk' undertaking because the outcome is uncertain and the research costs are high. The relation of dietary fat to the occurrence of cancers and (coronary heart disease) is one of the most pressing scientific and public health issues of our time. The investigators argue convincingly that the question will probably not be answered clearly by means other than an experimental trial.

"In retrospect, the cost of the study might be viewed as modest. Changes are now taking place in dietary patterns nationwide. If the Diet FIT study is to be done, it would be advisable to start as soon as possible to minimize possible contamination by these evolving changes."

The NCAB did not receive a complete copy of the pink sheet, according to a source who attended the closed session. The board had the abstract and the first page of the committee's critique, which does not address some of the questions that NCAB members raised. The board also did not have a list of the site visitors and the names of the review committee members.

The board voted 6-3 against the proposal, with one abstention. One board member who voted for the proposal, requested that in the future, for any grant that may be controversial, the board be provided with materials two weeks in advance, according to the source. As is customary, the board received materials the night before the meeting.

During the two hours the board considered the proposal, most of the discussion centered on animal studies relating to the question of whether the hypothesized reduction in cancer incidence would be due to the lower fat intake, or the loss of weight many women would experience while on the low fat diet.

That question was a serious challenge to the WHT last year. The committee formed by the DCPC Board to oversee the WHT determined that animal studies that had appeared to show increased risk with increased dietary fat had been supplanted by studies which found that the increased risk may be due to higher caloric intake rather than fat. Epidemiological studies provide the best evidence, the panel said, but are inconclusive about whether a dietary change late in life will result in a large drop in cancer incidence (**The Cancer Letter**, Jan. 15, 1988).

However, the review committee for Diet FIT concluded that the investigators' "lack of an attempt to disentangle the effect of decreased dietary fat from that of associated dietary changes" is defensible on grounds of feasibility.

"It is probably impossible and perhaps not appropriate as public health policy to try to maintain isocaloric diets in free living subjects. A similar argument applies to attempts to manipulate unsaturated vs. saturated fats," the reviewers said.

Critics on the NCAB also argued that women may not comply with the change in their diets and that monitoring compliance would be impossible. Those arguments were raised during the WHT. A feasibility study demonstrated conclusively that accrual, dietary modification and maintenance, and monitoring were indeed feasible.

DCPC Director Peter Greenwald presented the case for funding the trial at the NCAB meeting. Greenwald would not comment on the closed session, but he did tell **The Cancer Letter** his opinion of the trial.

"My view is that the relation of dietary fat to the occurrence of cancer is one of the most pressing health issues of our time," Greenwald said. "If we were to try to pick out the best investigators to conduct such a trial, I don't think there would be any better than these. And the only way to study this question is through an experimental trial. The questions are not going to go away.

"From an NCI point of view, I think it is

very important that we continue to explore ways to lower cancer risk by dietary intervention," he said.

The cancers that were endpoints in the study account for 54 percent of the cancer cases and 38 percent of cancer deaths in women in that age group, Greenwald noted.

"It's a very important issue. But I can understand the NCAB's action, it is a very costly project. I feel it's up to us at NCI to have a clear, strong research agenda on dietary fat and cancer."

However, asked what research alternatives there would be to Diet FIT, Greenwald said, "I don't see any stronger alternatives. We have a very strong set of evidence that dietary fat can alter the occurrence of cancer--but we don't have a trial to refer to as a gold standard. If we don't do a trial, we won't have anything to refer to."

The issue may come up for further discussion at the next NCAB meeting in December, Greenwald said. "The action is not over, as far as I know, but it is negative."

Prentice, reached by phone in Seattle, said he did not have any information about the board's discussion, and that the investigators asked NCI Director Samuel Broder for a statement to clarify "whether the NCAB's disapproval arises primarily because of the cost of the proposal or for scientific reasons, or other reasons the NCAB chose not to follow the peer review recommendation."

Prentice said he learned that the trial was discussed at last week's meeting of the NCI Executive Committee. "We're still a bit hopeful," Prentice said. "We think the trial is important from a public health point of view."

"I can't comment on the specifics of grant currently under review," Broder told **The Cancer Letter** last week.

"A number of issues related to women's health are an exceedingly high priority for the institute," Broder said. "We have a strong interest in trying to work out ways to study nutrition, chemoprevention and other issues that effect prevention of breast cancer, and we are looking at ways we can reach a consensus. This is a field in which people with the same backgrounds and training, and with the best intentions, can look at an issue and disagree. It's important for us to be solution oriented, and recognize that there is a divergence of strongly held views on this issue."

Broder said he had spoken to Prentice about the NCAB's decision, but Henderson told **The Cancer Letter** that the investigators still want a statement clarifying the NCAB's concerns.

"The ad hoc study section gave it a fantastically good review," Henderson said. "Since we haven't been told why it was turned down, the only reason we can assume is because of the cost."

Henderson said the investigators do not have any avenue for appeal. "You can appeal if there has been an unfair scientific review, but we had a very fair review," she said. "The director and the board have the final say in how they spend their money. I think it's a question of whether they see prevention as an important area for research. I would argue about any alternative to prevention for breast cancer, for example. Certainly, there could be more in treatment, but in order to really make a change in the incidence of breast cancer, we need to do research on prevention."

The application was submitted to both NCI and the National Heart, Lung & Blood Institute. In the review process, NCI was assigned the lead role on the project. The investigators had requested partial funding from NHLBI.

Henderson said the Diet FIT study would have cost about the same overall as a major study of men conducted with funding from NHLBI, called the Multiple Risk Factor Intervention Trial, or "MR FIT." The trial, now in its 17th year of follow up, studied the health effects of a low cholesterol diet in men.

"This is the first time I've ever felt the NCAB didn't want to do something for women," said Rose Kushner, executive director and founder of the Breast Cancer Advisory Center and member of the American Cancer Society's Breast Cancer Task Force.

Nancy Brinker, an NCAB member and chairman of the Susan G. Komen Foundation for the Advancement of Breast Cancer Research, abstained from the vote, according to a source.

After a gathering of prominent women in Washington last week on mammography, (see story later in this issue), Brinker did not confirm whether she abstained. However, she did comment on the board's action.

"I have rarely seen an issue that was so taken to heart and so thoroughly looked at, not only intellectually, but emotionally," Brinker told **The Cancer Letter**. "We do the best job we can, and that includes that trial. I can't say anything more about it, but I can assure you that my personal agenda is to encourage women's causes and women's health concerns. I consider it very important that the women of America perceive that we are doing

all we can, and for us to provide the kind of setting and tools (for research) that is not only usable but affordable. Dollars are tight.

"I will say we are very fortunate to have one of the best boards. We have a very reasoned, very smart board, and I don't think anybody has but the best of intentions."

Committee Urges Medicare Payment For Investigational Drugs, Care

The National Committee to Review Current Procedures for Approval of New Drugs for Cancer and AIDS has recommended that Medicare cover drug and clinical care costs for investigational drugs received by persons enrolled in cancer and AIDs clinical trials.

The committee, commonly referred to as the Lasagna Committee, after Chairman Louis Lasagna, released its recommendations at a recent meeting of the National Cancer Advisory Board.

The group specifically recommends that "Medicare coverage for the hospital, physician and other medical care costs for patients involved in cancer and AIDS trials should take cognizance of the fact that peer reviewed, scientifically sound trials provide state of the art treatment for patients desperately needing such treatment but for whom currently available drugs are ineffective.

"For such patients, scientifically meritorious investigational drug therapy is the best available therapy, and should be covered."

It also advises that "there is essentially no difference between investigational drugs approved by FDA for treatment of patients (e.g., a Compassionate IND or Treatment IND) and the Group 'C' investigational drugs of the National Cancer Institute.

"Coverage should be identical for all investigational drugs for which safety and efficacy have been demonstrated to a sufficient extent to achieve such treatment use while still in investigational status. To treat these two classes differently is inconsistent and indefensible on any grounds. Both should be covered, along with the clinical care costs for the drug recipients."

The committee also recommends reimbursement for off label use of approved drugs, stating that coverage should rely primarily "on the status of such indications in authoritative medical compendia."

It asserts that "usage approved by expert authority is more valid as a basis for reimbursement than whether specific FDA approval has been granted, since such approval may not as yet have been sought by the specific manufacturer, and in fact for some medications might never be sought."

Noting that for some indications, expert approval will not be available in the form of compendial coverage because of lags in publication schedules, it advises the Health Care Financing Administration to develop a mechanism "to rapidly review new indications supported by evidence in the medical literature and clinical practice, but not as yet approved in the compendia. Medicare coverage should be provided promptly in such instances."

The committee also recommends that a panel of experts be created to help determine whether trials hold promise of efficacy sufficient to warrant coverage in order to guide HCFA and carriers about reimbursement.

Coverage "should be automatic" once those criteria are met, and "carriers should have no discretion with respect to coverage of unlabeled indications."

The policy should apply equally to inpatient services, outpatient drugs administered by a physician and self administered prescription drugs "when that benefit becomes effective."

Hammer Supports Committee Statement

Armand Hammer, chairman of the President's Cancer Panel, told the NCAB that he supports the Lasagna Committee's conclusions and will transmit the statement to the HHS Secretary Louis Sullivan and to HCFA.

Hammer said the committee's statement asks HCFA to consider "a wholly new method to use in establishing criteria for reimbursement decisions for investigational therapies."

At a recent meeting of the committee, Robert Capizzi, who serves on the FDA's Oncologic Drugs Advisory Committee, "indicated he and his colleagues have felt evaluation criteria had indeed been vague, and they had been under the impression that increased survival was a requisite condition for any new drug approval recommended by his group," Hammer said. "It became apparent at the Lasagna Committee hearing that this is not, however, a statutory requirement."

At the Lasagna Committee's recent meeting, Daniel Hoth, director of the Div. of AIDS at the National Institute of Allergy & Infectious Diseases, reiterated his call for reimbursement of experimental agents.

"A well designed phase 2 or 3 trial should be state of the art care for that patient," he said.

"In many cases, the best available treatment

is an experimental drug. It is absurd to consider this simply a form of experimentation with no benefit to the recipient."

Hoth also recommended that FDA consider early approval of drugs with mandatory post market testing for agents to treat life threatening diseases.

"Recognizing that early data has a high degree of uncertainty about it, I think that we should be prepared to let FDA approve drugs based on early trials with the full recognition that on occasion follow up studies, or further data from long term follow up of the original studies would fail to support the original demonstration of efficacy," he said. "In such cases, the FDA ought to have the ability to withdraw its approval," a provision he called "an NDA with a string attached."

One possible approach could be a sunset provision by which "the drug approval expires unless the basis for its marketing approval is sustained." Hoth asserted that the risk of reversal of approval would be fairly small because of the high percentage of drugs that make it to phase 3 trials that are eventually approved by FDA. The major disadvantage is that "some drugs would be approved for marketing that later turn out to be ineffective."

Clarification On 5-FU/Levamisole

A story in last week's issue of **The Cancer Letter** incorrectly reported that FDA placed levamisole for the treatment of colon cancer on Group C status in July. The correct date was May.

The story also said that NCI staff members told **The Cancer Letter** that soon after the controversy over whether to release data on the levamisole/5-FU trial was reported in the June 9 issue, NCI received many calls for information about the combination.

NCI Director Samuel Broder said there has not been overwhelming demand for the combination. "We have to do more to get the word out," he said. It is likely that NCI will issue a clinical alert on the combination.

Due to a typographical error, the story left out Dukes C colon cancer in a sentence that said levamisole/5-FU is the first major improvement in the chemotherapy of Dukes B-2 colon cancer. The initial report from the North Central Cancer Treatment Group did show some improvement for Dukes B-2 patients. However, the analysis coming out of the intergroup study reportedly shows that Dukes C patients are the primary benefactors.

Women Encouraged To Get Screening Mammogram Regularly, Tell Others

Women leaders in business, politics, labor, science, the media and the arts were urged to fight breast cancer by encouraging their friends and colleagues over 40 to get regular mammograms.

About 200 women attended a seminar and lucheon sponsored by the Susan Komen Foundation and NCI last week to listen to scientists and breast cancer patients reiterate the importance of screening mammography in the early detection of breast cancer.

First Lady Barbara Bush, the keynote speaker, asked the participants to "get the word out to save lives." Noting that "a good starting place is ourselves," Bush said that she has a screening mammogram annually.

The program launched NCI's breast cancer screening education initiative. Participants were provided with ideas and materials to take back to their organizations and communities to encourage women to get mammograms and breast exams. A questionnaire the participants filled out will provide a basis for follow up.

HHS Secretary Louis Sullivan said that breast cancer "is one of those conditions where we can change the data. We can reduce the number of deaths from breast cancer by at least 30 percent if women who are not getting mammograms would get them."

NCI Director Samuel Broder, Deputy Director Maryann Roper, and Marc Lippman, director of the Vincent Lombardi Cancer Research Center at Georgetown Univ. presented the scientific case for screening mammography.

Breast cancer patients presented the personal reasons for getting a mammogram. Nancy Brinker, founder and chairman of the Komen Foundation, told the story of her sister, who did not survive breast cancer, and her own successful treatment.

Nina Hyde, fashion editor of "The Washington Post" and cochairman of the summit, told her story. A mammogram in 1982 that was improperly read lulled her into thinking she was fine, Hyde said. She did not have another mammogram for three years and in 1985, she was diagnosed with breast cancer, which had spread to 19 lymph nodes. She is undergoing treatment.

"The number of women who are getting breast cancer is growing and is getting younger," Hyde said. "Maybe you can help just one woman, perhaps thousands."

Jackson Laboratory Should Be Rebuilt With Federal Funds, NIH Panel Says

The mice production facility at the Jackson Laboratory in Bar Harbor, ME, should be rebuilt as soon as possible with federal funds, an NIH panel has concluded.

The panel, comprised of university researchers in cancer, immunology, and other fields, was invited by NIH to submit its findings at the conclusion of a recent conference on the impact of the May 10 fire.

A bill passed by the Senate provides $25 million for a new facility, on a competitive basis. The bill may go to a House and Senate conference committee this week. NIH had opposed the bill, but a spokesman for the agency said NIH is waiting for the panel's report to make a final policy statement. The report will not be available until early October.

Jackson Laboratory officials prepared a briefing paper they will take to Congress this week that outlines the panel's findings. Following are exerpts from the paper:

1. Jackson Laboratory is a valuable and unique national resource. The nonprofit laboratory provides nearly 2 million mice a year to research institutions. Surveys of medical research literature for last year showed that 80 to 95 percent of reports in AIDS, hematology, immunology, neurology and eye disease that used inbred mice depended on Jackson mice. Commercial distributors provide only 20 of the 1,700 strains produced by Jackson. The commercial breeders told the NIH conference that they would not be willing to assume responsibility for producing the 1,700 strains available from Jackson.

The production of large numbers of mice, the panel said, allows the lab to discover new mutations that are extremely valuable to the research community. Without producing a sufficient volume of the major strains of inbred mice, the laboratory would be unable to continue finding new mutations.

2. Jackson Laboratory should be fully restored in a timely manner using federal funds. The panel urged the federal government to restore during this appropriations cycle the supply of mice. Valuable research in AIDS, cancer, and other areas has been significantly delayed or stopped due to the mice shortage. The lab has tried to minimize disruption by using $7 million of its insurance proceeds to finance construction of interim production facilities. The lab has also given pedigreed pairings to research laboratories to raise their own mice. But there has been little success with this process because of costs and concern with volume, quality control and genetic uniformity.

3. NIH should be the lead agency in the effort to restore Jackson Laboratory. NIH has a substantial stake in resolving the shortage in research mice. Nearly two thirds of Jackson mice go to NIH or its grantees, and about $600 to $700 million of research will be affected or stopped this year due to the fire.

4. There are a number of precedents for the allocation of federal funds to nonprofit agencies to construct infrastructure required for national public health needs. The Senate has passed a bill to authorize funds for a mouse production facility, but current law is more than adequate to handle this need.

5. The money to rebuild the production facility should come in the form of new appropriations. The shortfall between Jackson's insurance and actual losses is $25 million. Even if the lab could borrow construction funds, the interest charges would increase the total cost to $69 million. The research community, particularly NIH grantees, would bear the brunt of the interest charges in the form of higher costs for mice.

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

American Society for Therapeutic Radiology and Oncology Annual Meeting--Oct. 2-5, San Francisco Hilton. Call 703/648-8910.

Developmental Therapeutics Contract Review Committee--Oct. 2, NIH Bldg 31 Rm 8, open 9-10 a.m.

Community Cancer Centers: The Critical Link for the Year 2000--Oct. 5-6, Killington, VT. Contact Green Mountain Oncology Group, 160 Allen St., Rutland, VT 05701, phone 802/775-7111 ext 184.

Cancer Care: Differentiating Your Program--Oct. 5-6, Hilton Head, S.C. Contact CDP, phone 404/391-9872.

Issues in Oncology Nursing--Oct. 6, M.D. Anderson Cancer Center, Houston. Call 713/792-8574.

Breast Cancer: Current Research, Practice and Controversy--Oct. 6, Chapel Hill, NC. Contact Nancy Barnes, Office of Continuing Education, Campus Box #7000, Univ. of North Carolina, Chapel Hill 25799, phone 919/962-2118.

Piedmont Oncology Assn.--Oct. 6-7, Myrtle Beach, SC. 10th annual symposium. Contact Cancer Center/POA, 300 S. Hawthorne Rd., Winston-Salem, NC 27103, phone 919/748-4464.

XIVth Symposium of the International Association for Comparative Research on Leukemia and Related Diseases--Oct. 6-7, Denver, CO. Contact Dr. Marvin Rich, AMC Cancer Research Center, 1600 Pierce, Denver, CO 80214, phone 303/233-6501.

Urologic Oncology: An Update--Oct. 7, Roswell Park Memorial Institute Oncology Seminars. Contact Gayle Bersani, 716/845-2339.

Blood Cell Growth Factors: Their Biology and Clinical Applications--Oct. 8-12, Capri. Sponsored by "International Journal of Cell Cloning," 4100 S. Kettering Blvd., Dayton, OH 45439; and International Menarini Foundation. Organized under auspices of the Hipple Cancer Research Center.

XIVth International Symposium for Comparative Research on Leukemia and Related Diseases--Oct. 8-12, Vail, CO. Preceded by a satellite conference on AIDS Oct. 6-7 in Denver. Cosponsored by the American Assn. for Cancer Research and IACRLRD. Contact Conference Secretariat, IACRLRD, 410 W. 12th Ave., Suite 302, Columbus, OH 43210, phone 614/292-5602.

Canadian Association of Radiologists Annual Meeting--Oct. 10-14, Quebec City Convention Center. Call 703/648-8910.

Cancer Biotherapy Achieving State of the Art--Oct. 11, Cleveland. Contact Ronald Bukowski, M.D., Cleveland Clinic Cancer Center, 9500 Euclid Ave. (T33), Cleveland, OH 44195, phone 216/444-6825.

Meeting Patient and Family Support and Referral Needs--Oct. 11, 18 and 25, Westmoreland County Community College, Youngwood, PA; and Nov. 3, 10 and 17, Univ. of Pittsburgh School of Nursing, Pittsburgh, PA. Contact Pittsburgh Cancer Institute, 412/624-4785.

First International Consensus Workshop on Radiation Therapy in the Treatment of Metastatic and Locally Advanced Cancer--Oct. 11-13, Capital Hilton Hotel, Washington, D.C. Contact American College of Radiology, 1101 Market St., 14th Floor, Philadelphia, PA 19197, phone 215/574-3181.

Div. of Cancer Treatment Board of Scientific Counselors--Oct. 12-13, NIH Bldg 31 Rm 10, 8:30 a.m.

Div. of Cancer Prevention & Control Board of Scientific Counselors--Oct. 12-13, NIH Bldg 31 Rm 6, 8:30 a.m.

President's Cancer Panel--Sept. 13, Stanford Univ., 9 a.m.-12:30 p.m., open.

Toward 2000 V--Oct. 13-14, Fox Chase Cancer Center, Philadelphia. Contact Kathy Smith or Louise Blasick, Fox Chase Cancer Center, 430 Rhawn St., Bldg A, Philadelphia, PA 19111, phone 215/728-2715.

14th International Body Imaging Conference--Oct. 14-21, Waikoloa, Kona, Hawaii. Contact Ronald Friedman, M.D., Program Director, 9800 D. Topanga Canyon Blvd., Suite 232, Chatsworth, CA 91311, phone 818/700-9821.

2nd International Conference on Melanoma--Oct. 16-19, Venice. Contact General Secretariat, Melanoma Conference, Istituto Nazionale Tumori, Via G. Venezian 1, 20133 Milan, Italy.

Continuum of Care--Oct. 16-17, Cleveland. Contact Ina

Hardesty, Cleveland Clinic Foundation, 9500 Euclid Ave., A110, Cleveland, OH 44195.

Thyroid Iodine 131 Assessments Committee--Oct. 17-18, Hyatt Regency Bethesda, 9 a.m. open.

Midwest Regional Oncology Conference--Oct. 19-20, Kansas City, MO. Contact Beth Paul, 800/451-3182.

Second Annual Cancer Symposium--Sheraton West Port Inn, St. Louis, MO. Sponsored by St. Louis Univ. School of Medicine and the American Cancer Society. Contact Jayma Mikes, 3635 Vista at Grand, PO Box 15250, St. Louis, MO 63110-0250, phone 314/577-8854.

42nd Annual Symposium on Fundamental Cancer Research: Cellular and Molecular Targets of Cancer Therapy--Oct. 24-27, Stouffer Presidente Hotel, Houston, TX. Contact M.D. Anderson Cancer Center, phone 713/792-3030.

Oncology Nursing Symposium--Oct. 25, Los Angeles. Contact Marie Randolph, Education and Training, St. Vincent Medical Center, PO Box 57992, Los Angeles, CA 90057, phone 213/484-7451.

National Committee to Review Current Procedures for Approval of New Drugs for Cancer and AIDS (Lasagna Committee)--Oct. 25, NIH Bldg 31 Rm 10, 9 a.m.-4 p.m., open.

Div. of Cancer Etiology Board of Scientific Counselors--Oct. 26-27, NIH Bldg 31 Rm 10, open 1 p.m. Oct. 26 and 9 a.m. Oct. 27.

Div. of Cancer Biology & Diagnosis Board of Scientific Counselors--Oct. 27, NIH Bldg 31 Rm 7, 8:30 a.m.

IX Congreso Argentino y Regional de Oncologia Clinica--Oct. 29-Nov. 2, Buenos Aires. Contact Dr. E. Mickievicz, Av. Santa Fe 3233-2 B, Buenos Aires (1425), Argentina.

9th Annual Scripps Memorial Hospital Cancer Symposium for Nurses--Oct. 29-Nov. 1, San Diego. Contact Nomi Feldman, Conference Coordinator, 3770 Tansy, San Diego, CA 92121, phone 619/453-6222.

13th Annual Scripps Cancer Symposium--Oct. 30-Nov. 1, San Diego. Contact Nomi Feldman, Conference Coordinator, 3770 Tansy, San Diego, CA 92121, phone 619/453-6222.

Foundation Course in Care of the Patient with Advanced Cancer--Oct. 30-Nov. 3, Oxford, UK. Contact Study Centre Coordinator, Sir Michael Sobell House, Churchill Hospital, Oxford OX3 7LJ, UK.

Living with Cancer--Oct. 31, New York. Conference on survivorship sponsored by the Oncology Nursing Education Committee of Columbia-Presbyterian Medical Center. Contact Columbia Univ. Comprehensive Cancer Center, 701 W. 168th St., Rm 1424, New York 10032, phone 212/305-6905.

How Much Cancer Can Be Prevented by Dietary Change?--Nov. 1-3, Nagoya, Japan. UICC Nutrition and Cancer Program Workshop. Contact Dr. Curtis Mettlin, Roswell Park Memorial Institute, Buffalo, NY 14263, phone 716/845-4406.

First International Symposium on Immunobiology of Renal Cell Carcinoma--Nov. 6-7, Cleveland, OH. Contact Dr. Ronald Bukowski, Cleveland Clinic Cancer Center, 9500 Euclid Ave., Cleveland, OH 44195-5236, phone 216/444-6825.

Melanoma: State of the Art Research--Nov. 8, Chicago. Illinois Cancer Council conference. Contact Patti Jelen, Coordinator, ICC, 36 S. Wabash Ave. Suite 700, Chicago 60603, phone 312/346-9813.

33rd Annual Clinical Conference: Endocrine and Nonendocrine Hormone Producing Tumors--Nov. 8-11, Univ. of Texas M.D. Anderson Cancer Center. Call 713/792-3030.

National Committee to Review Current Procedures for the Approval of New Drugs for Cancer and AIDS (Lasagna Committee)--Nov. 9, NIH Bldg 31 Rm 10, 9 a.m.

Practical Advances in Bioprognosis and Biomodulation for the Medical Oncologist--Nov. 9-10, New York City. Contact Jaclyn Silverman, Div. of Medical Oncology, Box 1178, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029, phone 212/241-6772.

GI Cancer--Nov. 10-11, Century Plaza Hotel, Los Angeles. Sponsored by Saint Joseph Medical Center. Contact Nomi Feldman, 3770 Tansy, San Diego, CA 92121, phone 619/453-6222.

Multidisciplinary Management of Bronchogenic Carcinoma: Advances and Controversies--Nov. 11, Cleveland. Contact Betty Olson, Education Coordinator, Ireland Cancer Center, Univ. Hospitals of Cleveland/Case Western Reserve Univ., 2074 Abington Rd., Cleveland, OH 44106, phone 216/844-7858.

New Approaches to Problems in Radiation Oncology: Applications of Molecular Biology--Nov. 12-15, Univ. of Arizona Health Sciences Center, Tucson, AZ. Contact Mary Humphrey, Arizona Cancer Center, phone 602/626-2276, fax 602/626-2284.

Prospects of Oncological Clinical Research--Nov. 13-14, Hotel Intercontinental, Paris. Contact Pr S. Khoury, Hopital de la Pitie, Urology Service, 83 Bd de l'Hopital, 75013, Paris, France, phone (1)45703862, fax (1)45703078.

EORTC Symposium on Advances in Gastrointestinal Cancer--Nov. 15-17, Strasbourg, France. Contact Dr. M. Adloff, Centre Medico-Chirurgical et Obstetrical de las Securite Sociale, 19 rue Louis Pasteur, Schiltigheim B.P. 120, 67042 Strasbourg Cedex, France, phone (88)628300.

International Congress on Oral Cancer--Nov. 15-19, New Delhi, India. Contact Ajeet Gopal and Associates, 9-237, Greater kailash-II, New Delhi 110048, India.

Comprehensive Care in Pediatric Hematology/Oncology--Nov. 16-18, Orlando. Contact Cindi Butson, Florida Assn. of Pediatric Tumor Programs Seminar, PO Box 13372, Gainesville, FL 32604, phone 904/375-6848.

Fourth Annual National Coalition for Cancer Survivorship Assembly--Nov. 17-19, Los Angeles, CA. Contact Catherine Logan, NCCS, 323 Eighth St. SW, Albuquerque, NM 87102, phone 505/764-9956.

Ninth Asia Pacific Cancer Conference--Nov. 22-26, Lahore, Pakistan. Contact Dr. S.A. Askari, PO Box 6042, Lahore, Pakistan.

FUTURE MEETINGS

Southwest Oncology Nursing Symposium: Challenges and Opportunities in Cancer Nursing II--Feb. 16-17, Phoenix, AZ. Contact Debbie Todd, Outreach Services, Good Samaritan Regional Medical Center, 1111 E. McDowell Rd, Phoenix, AZ 85006, phone 602/239-5994.

Novel Chemotherapeutic Approaches in Treatment of Colorectal Cancer--Feb. 23-24. Doral Ocean Beach Resort, Miami Beach, FL. Contact Div. of Continuing Medical Education (D23-3), Univ. of Miami School of Medicine, PO Box 016960, Miami, FL 33101, phone 305/547-6706.

7th Annual Advances in Cancer Treatment Research/2nd Autologous Bone Marrow Transplantation Symposium--March 7-9, Grand Hyatt Hotel, New York City. Contact Office of Continuing Medical Education, Albert Einstein College of Medicine, 3301 Bainbridge Ave., Bronx, NY 10467, phone 212/920-6674.

Sixth International Conference on Adjuvant Therapy of Cancer--March 7-10, Arizona Cancer Center, Tucson, AZ. Abstract deadline Dec. 1. Contact Mary Humphrey, Arizona Cancer Center, Univ. of Arizona College of Medicine, Tucson, AZ 85724, phone 602/626-2276, fax 602/626-2284.

Third International Conference on the Interaction of Radiation Therapy and Systemic Therapy--March 9-12, Asilomar Conference Center, Monterey, CA. Contact Suzanne Bohn, American College of Radiology, 1101 Market St., 14th Floor, Philadelphia, PA 19107, phone 215/574-3181.

Association for Practitioners in Infection Control Annual Conference--June 3-7, Washington Hilton, Washington, D.C. Contact APIC, 505 E. Hawley St. Mundelein, IL 60060, phone 312/949-6052 (or after Nov. 11, call 708/949-6052).

Candlelighters Childhood Cancer Foundation 20th Anniversary Conference--July 22-25, Sheraton Washington, Washington, D.C. Contact Candlelighters Childhood Cancer Foundation, PO Box 15263, Washington, D.C. 20003.

7th International Conference on Human Tumor Markers--Sept. 10-14, Kiev, USSR. Contact IATMO Kiev 1990, c/o Prof. Georg Birkmayer, LBA laoratory for BioAnalytic and Medinfo Inc., Schwarzspanierstrasse 15, A-1090 Vienna, Austria.

NCI Contract Awards

Title: Second cancer following treatment for unterine corpus cancer.

Contractors: Finnish Cancer Registry, $38,500; Danish Cancer Registry, $46,734.

Title: Record linkage study of second cancer following treatment for uterine corpus cancer.

Contractor: Ontario Cancer Treatment and Research Foundation, $72,495.