

THE

LETTER

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NCI, DOE Working Out Details Of Converting Portion of Idaho Facility To Work On BNCT

NCI and the Dept. of Energy are continuing to negotiate details of an agreement through which the Div. of Cancer Treatment's Radiation Research Program will develop boron
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In Brief

Levin Leaves UCSF For M.D. Anderson; Copeland Moves to Ohio State; OCC's Alice Hamm Retires

VICTOR LEVIN, chief of neuro-oncology at the Univ. of California (San Francisco), has been appointed chairman of the Dept. of Neuro-Oncology at the Univ. of Texas M.D. Anderson Cancer Center. He will continue as principal investigator for one of the national collaborative drug discovery groups funded by NCI. . . . LARRY COPELAND, associate professor of gynecology at M.D. Anderson, has been named director of the Div. of Gynecologic Oncology at Ohio State Univ. Hospitals ALICE HAMM, science writer with the Office of Cancer Communications, has retired after 17 years with NCI. She plans to work as a volunteer two days a week at the NIH Clinical Center, and will write on assignment articles relating to AIDS for a national magazine. . . . AMONG 40 new members elected to the Institute of Medicine are David Baltimore, director of the Whitehead Institute for Biomedical Research; Barry Bloom, chairman of microbiology and immunology at Albert Einstein College of Medicine; Paul Capp, chairman of radiology at Univ. of Arizona Health Sciences Center; Stanley Cohen, professor of genetics and medicine, Stanford Univ. School of Medicine; Bernard Fields, chairman of microbiology and molecular genetics, Harvard Medical School; Emil Gotschlich, chairman of bacteriology and immunology, Rockefeller Univ.; David Hoel, director of the Biometry & Risk Assessment Program, National Institute of Environmental Health Sciences; Barbara Hulka, chairwoman of epidemiology at Univ. of North Carolina (Chapel Hill); Philip Majerus, codirector of hematology-oncology, Washington Univ. School of Medicine; Noel Weiss, chairman of epidemiology, Univ. of Washington School of Public Health & Community Medicine. Election to senior memberships included Jonathan Rhoads, professor of surgery, Hospital of the Univ. of Pennsylvania and first chairman of the National Cancer Advisory Board; and Benno Schmidt, chairman of the Memorial Sloan-Kettering Board and first chairman of the President's Cancer Panel.

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Congressional Pressure, Prospects For BNCT Encourage Idaho Project

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neutron capture therapy at a DOE facility in Idaho which has been producing isotopes for military use.

NCI has not had much success in converting DOE physics machines to cancer treatment use in the past, and was reluctant to commit a substantial portion of its budget to the Idaho project. But pressure from the state's congressional delegation and the intriguing prospects for BNCT in tackling hard to treat tumors such as glioblastoma has encouraged DCT staff members and their advisors to give serious consideration to the proposal.

At a closed session during the recent meeting of the DCT Board of Scientific Counselors, proponents of the Idaho BNCT project presented what Radiation Research Program Director John Antoine said was a "program project like" proposal. Under this plan, NCI would be responsible for only a portion of the facility, rather than the entire operation as previously discussed (The Cancer Letter, March 25).

The earlier discussions focused on BNCT's prospects for treating brain tumors, but a workshop held recently on the subject determined that melanoma and possibly other tumors could be candidate targets for the process.

Boron neutron capture therapy involves delivery of boron to the tumor site, to be followed with neutron beam irradiation. The neutrons activate boron alpha particles. With the boron localized in the tumor and immediate vicinity, there is little damage to normal tissue.

The process is not unlike photodynamic therapy, in which an inactive compound localized to a tumor is activated by infrared light beams.

Antoine said that additional workshops will be convened to define proper avenues to take, including determining tumors that will be included in the study if it is undertaken.

There are other facilities in the U.S. and abroad which might be used on collaborative BNCT efforts. One possibility is that they could be brought into a BNCT cooperative group.

The remoteness of the DOE facility, 50 miles from Idaho Falls, had discouraged some NCI staff members. But, "Idaho Falls has a good airport, so the transportation problem

could be overcome," Antoine said. Also, the fine community hospital there is very interested in participating, which would provide the clinical setting the program would need.

Antoine intends to report on the new program at the October meeting of the DCT board.

"Cancer Week" Idea Dropped; AACR, ASCO Continue Membership Growth

The annual meetings of the American Assn. for Cancer Research and American Society of Clinical Oncology are getting so large that ASCO leadership came up with the idea of calling the consecutive spring meetings "Cancer Week."

B.J. Kennedy, the outgoing ASCO president, said at the New Orleans meeting that allied oncologic societies would be asked to participate. Increased opportunities for joint sessions, information exchange, developing interdisciplinary collaborations, and various other benefits were behind the proposal.

It is not to be, however, probably much to the relief of those with the responsibility of finding places big enough to hold the meetings and cities with enough hotel rooms to accommodate the hordes who would attend them.

Enrico Mihich, outgoing AACR president, said that at joint meetings of the ASCO and AACR officers and board members, it had been decided that "the issue of cancer week is dead, unless both societies indicate they want to consider it at some time in the future."

The Society of Surgical Oncology already has started having its annual meetings at the same time as ASCO's. The Oncology Nursing Society will resume its practice of meeting just prior to ASCO next year in San Francisco. But after doing the same, in Washington D.C. in 1990, ONS will split.

"It's just too much all at once," ONS President Deborah Mayer said. ONS will not even be meeting in the same city as the others, starting in 1991.

The SSO scientific sessions were well attended in New Orleans, but the massive ASCO gathering seemed to overwhelm everything. The ASCO plenary sessions and symposia were jammed, the 203 slide presentations filled the meeting rooms, and the record number of exhibitors filled the huge exhibit hall and the ASCO coffers.

The record figures Kennedy liked best were the membership and meeting attendance

numbers. Last year, ASCO had 6,480 members; this year, it is "7,400 beautiful, wonderful oncologists," Kennedy beamed. Last year, 4,625 registered for the meeting; in New Orleans, 5,700 physicians were there, along with 400 spouses and 1,300 exhibitors.

The new members included 425 from the American Society of Therapeutic Radiology & Oncology, as ASCO continued its policy of opening its membership to ASTRO and SSO members; and 88 from SSO.

The numbers were a little smaller but it was much the same story with AACR. With 3,766 active members, an eight percent increase over last year; and 618 corresponding, 346 emeritus and 18 honorary members, the total is an alltime high. Registration for the meeting was about 4,000, up from 3,300 last year. There were 109 commercial exhibits, compared with 68 two years ago (AACR did not have commercial exhibits last year).

Young Investigator Awards

ASCO's annual Young Investigator Awards, supported by grants from industry, went to Mark Roberts, pediatric oncologist at St. Jude Children's Research Hospital, sponsored by Burroughs Wellcome; Stanley Riddell, medical oncologist at the Univ. of Washington, sponsored by Lederle; Theodore Lawrence, radiation oncologist at Univ. of Michigan, sponsored by Varian Associates; Ethan Dmetrovsky, medical oncologist at Memorial Sloan-Kettering, sponsored by Bristol-Myers; David Namus, medical oncologist at Memorial Sloan-Kettering, sponsored by Schering; William Carroll, pediatric oncologist at Washington Univ., sponsored by Genentech; and Edward Staren, surgical oncologist at Rush Presbyterian St. Luke's Medical Center, sponsored by Roche Laboratories.

Upjohn and Cytogen contributed \$10,000 each to help young investigators who presented papers to attend the meeting.

Allen Lichter, chairman of the Awards Selection Committee, said that he had contacted 19 of the 23 young investigator awardees of the last three years. Sixteen of the 19 remain in research careers, virtually all of them independently funded, Lichter said.

Stephen Schimpff, secretary treasurer, reported that the society is in good financial condition, with its \$2 million annual budget and cash reserves of \$575,000, "which probably will climb to \$600,000 given the attendance at this meeting and the number of exhibits."

Sharon Murphy, chairwoman of the Publications Committee, noted that a

successful joint publishing venture with Grune & Stratton resulted in revenue exceeding \$2 million, meaning there would be no increase in subscription rates for the "Journal of Clinical Oncology" nor any increase in dues.

George Canellos, "JCO" editor, reported that volume of papers submitted had increased, "more and better, and more from European investigators." Submissions averaged 50 per month, with a 43 percent acceptance rate.

Karen Antman, chairwoman of the Public Issues Committee, reported that its major legislative priority was renewal of the National Cancer Act. The major policy issue is coverage of patient care costs in clinical trials. "The advice of Dr. (John) Gruppenhoff (whose Washington DC firm represents health organizations) has been critical," Antman said.

Other issues, Antman continued, include increasing participation in clinical trials (which new President Charles Coltman said is going to be the theme of his term), subspecialty recognition for oncology, a Health Care Finance Administration study of the costs of administering chemotherapy, an expanded Harvard relative value scale study including all specialties, shaping reimbursement for chemotherapy in the future, payment for FDA labeled drugs prescribed for unapproved indications, and unorthodox therapies.

AACR honored two of its distinguished members and presented special awards to the American Cancer Society and two of its departing staff members.

Named as new honorary members, "distinguished scientists who have made extraordinary contributions to cancer research," outgoing President Enrico Mihich said, were George Klein of Karolinska Institute and Abraham Golden of NCI. Golden was one of the first to develop the theory of combination chemotherapy, Mihich said.

NCI Director Vincent DeVita added, "Abe Golden, Gordon Zubrod, Tom Frei, Jay Freireich and Paul Carbone all nurtured me in the early years" of cancer chemotherapy development at NCI.

Mihich presented a certificate of award to ACS marking the Society's 75th anniversary. ACS President Harmon Eyre accepted the award.

Explaining why ACS has moved its national headquarters from New York to Atlanta, Eyre said, "We believe we must be responsible stewards of the money donated to the Society. We will save \$5 million a year by moving, and

we intend to apply that to more support for cancer research."

Mihich also presented awards to Frank Rauscher, who left ACS recently as senior vice president for research, and Arthur Holleb, who has retired as senior vice president for medical affairs.

Rauscher, former NCI director, left ACS rather than move to Atlanta. He is now executive director of TIMA Foundation. Mihich said "through his leadership, ACS research programs grew tremendously. He has been a model of activity and integrity."

Holleb "has been an elegant spokesperson for the Society and interpreter of cancer issues for the professional and lay public," Mihich said. Holleb is continuing as editor of the ACS publication, "CA--A Journal for Clinicians."

In his report, Mihich said that ASCO leaders have agreed to an AACR request to switch the order in which the organizations meet. The ASCO meeting has been starting the week, AACR following. The change probably will start in 1991, with AACR opening the week in Houston.

Bypass Budget

Mihich said that in meeting with members of Congress and their health aides during the year, he was disturbed to learn that most of the aides "were not aware of the existence of NCI's bypass budget. It is the only official document which presents the needs of the National Cancer Program, and describes the leads from basic science which need to be exploited. Nothing is as important as the bypass budget. You should stress that in your letters to members of Congress."

DeVita commented that he had accompanied Armand Hammer, chairman of the President's Cancer Panel, to the White House when Hammer presented President Reagan with a copy of the 1989 bypass budget. "Dr. Hammer told him he was the first President to touch the bypass budget since Richard Nixon," DeVita said.

Mihich said that the absence of construction funds in the current NCI budget and the prospect of the same next year "is particularly painful, as is the level of training funds."

Mihich, a member of the National Cancer Advisory Board, said his service on the board has given him an insight into NCI priorities. "In the past, some of you have expressed concern about the future of ROIs. That concern should never cross your minds again. As a member of the NCAB, I have seen the

efforts NCI administrators make to protect and nourish ROIs."

Mihich mentioned the series of small meetings, three to four a year with attendance limited to 200, which he has initiated. They will involve "awareness of what can be done on the cutting edge of cancer research." One has been scheduled for October of this year on oncogenes, another on tumor viruses in San Diego next January, another on molecular events and mutation in Tuburon, CA, prior to next May's annual meetings in San Francisco, a meeting with Japanese scientists in Honolulu after the San Francisco meeting, and a meeting in Cambridge, England, on molecular targets of chemotherapy in October, 1989.

Plans for a permanent headquarters for AACR are proceeding, with the intention to purchase a building within four to five years.

James Holland offered the suggestion that AACR finances could be enhanced if members would include bequests for the organization in their wills. "That's a painless way to make a contribution," Holland said.

Robert Handschumacher, finishing his term as secretary treasurer, reported that AACR's journal, "Cancer Research," had finished the year with a slight deficit, considerably less than expected.

Overall, AACR had projected a \$47,000 deficit for the year but in fact ended only \$7,000 in the red. The budget this year calls for a \$10,000 surplus, and reserves have been enhanced to over \$300,000.

Executive Director Margaret Foti reminded members that next year's meeting will be May 24-27 at San Francisco's Mosconi Center. The deadline for abstracts is Dec. 8.

Organ Systems Groups At Work, Breast Cancer Recommendations Made

Members of the working groups which form the most important element of NCI's Organ Systems Program were nearly unanimous in opposing the changes that NCI's leadership and the National Cancer Advisory Board adopted earlier this year--phasing out the Organ Systems Coordinating Center, bringing that function into NCI, and dispersing the grants to the program divisions.

The working groups, one for each of the organ sites involved in the program, still have the task of determining research areas which need emphasis, and recommending the mechanism to stimulate those areas--RFAs or program announcements for grants, or RFPs

for contracts. After discussions with NCI Director Vincent DeVita and staff members, it appears the working groups have adjusted to the new arrangements and are back at work.

Kenneth McCarty, chairman of the Breast Cancer Working Group, reported to the DCPC Board of Scientific Counselors a list of priorities in breast cancer that his group had drawn up:

Short term priorities

1. Cancer control diet, genetic and environmental factors--identify populations at risk, characterize possible intermediate lesions, establish markers of fat and nutrient intake, experimentally evaluate diet and its influence on cancer, intermediate risk groups and survival; chemoprevention in risk groups, educate the scientific community, physicians and the population in the goals of cancer control.

2. Treatment--Education in the importance of clinical trials, disseminate the observations of adjuvant trials, uniformity of classification and categories of treatment groups, evaluate the significance of the Scottish and Wisconsin data, explore immune and growth factor modulation models.

3. Diagnosis--Improve awareness of survival gains with mammography, establish priorities of cancer detection in cancer centers, continue evaluation of immunodiagnosics, consider reference resource for precancerous and dysplastic lesions, improve detection mechanisms for residual and recurrent disease.

4. Epidemiology--Pursue intensively leads regarding special risk factors, evaluate biologic characteristics of risk factor free cancers, genetic characterizations, estrogen and progestin replacement effects in population studies, molecular markers.

Long Term Priorities

Development, differentiation, and regression in normal mammary glands; identify and characterize genetic aberrations in dysplasias and cancers; develop targeted therapies taking advantage of the above differences; exploit autocrine, paracrine and endocrine effects; increase commitment to clinical trials, cancer control and diagnostic modalities which reduce mortality; diet, effective diet, measures of dietary compliance; followup of the vanguard group in the Women's Health Trial; observational cohort study of diet, risk and intermediate lesions; support studies of mechanisms of differentiation and development; and workshops and improved communication between disciplines.

NCI Conducting Four Epidemiology Studies On Residential Radon Threat

Radon, which has moved onto the scene as possibly one of the more serious environmental health threats, is the subject of epidemiologic studies carried on by NCI in collaboration with other groups, assessing the carcinogenic hazards of household radon exposure.

The ongoing studies were reviewed briefly for the National Cancer Advisory Board recently by John Boice, chief of the Radiation Epidemiology Branch in the Div. of Cancer Etiology.

Radon is a radioactive gas produced from the decay of uranium in soil and rocks. It was first identified as a health problem in the early 1900s among underground miners, many of whom were developing lung cancer. Since then, numerous studies of underground miners have shown a direct correlation between lung cancer and radon exposure.

The potential health risk of radon was brought to the attention of the public several years ago when high levels of radon were detected in some U.S. homes built on uranium rich soil. Recognizing the potential risk of residential radon, the Environmental Protection Agency issued guidelines for radon exposure, recommending four picocuries per liter of air as the guideline level above which homeowners should take action to reduce exposure. EPA estimates that eight million homes in the U.S. may exceed that level.

Outdoors, radon occurs naturally, usually in harmless, low levels. But indoors, the invisible, odorless gas can accumulate, moving through small spaces in soil and rocks and seeping in through dirt floors, cracks in concrete, floor drains, and sump joints. It can also enter through water drawn in from private wells. Lack of ventilation and tight insulation may contribute to indoor radon gas buildup.

Radon decays and forms radioactive byproducts that can be inhaled into the lungs. These decay byproducts lodge in the lungs, causing damage to lung cells, which may eventually lead to cancer.

Between 5,000 and 20,000 lung cancer deaths a year in the U.S. may be attributed to radon, EPA estimates.

EPA has developed a range of cancer risk estimates for various radon exposure levels. Some experts believe, however, that these projections, based only on data from the miner

studies, may be too high for the general population.

To assess the possible lung cancer risk associated with residential radon exposure, NCI initiated three studies--in New Jersey, Sweden and China--in 1985 and a fourth study in Missouri in 1987. Boice believes that these studies, three of which have been added to ongoing lung cancer studies initiated for other reasons, will yield important information on radon risk, including information on the possible interaction of radon with cigarette smoking and the specific risk among women.

New Jersey study

As part of a case control study of lung cancer among women in New Jersey, NCI in collaboration with the New Jersey Dept. of Health is evaluating radon as a potential risk factor by monitoring radon levels in the homes of persons who developed lung cancer and in the homes of others who do not have the disease. New Jersey was chosen as the study site largely because many municipalities in this region are located on the Reading Prong, a uranium rich belt of land extending through eastern Pennsylvania, New Jersey and New York. Many homes along the Reading Prong have been found to have elevated levels of indoor radon.

To assess cumulative radon exposure of the New Jersey women, the researchers have placed two radon detectors in the long term residences of approximately 800 women--400 women who were diagnosed with lung cancer in 1982 and 1983, and 400 controls. Analysis of the radon readings should be completed in about a year.

Missouri study

A similar study of women in Missouri began last year. This study focuses specifically on the risks of radon exposure for nonsmoking women. Missouri was identified as a good study site based on a pilot survey showing that over 15 percent of the houses measured exceeded the EPA remedial action guideline. Further, the state's population is relatively stable, increasing the likelihood that residents have lived in homes with elevated radon levels for extended periods of time.

Approximately 350 nonsmoking women who developed lung cancer and 700 controls are being selected for interview and for placement of radon detectors in their homes. Two radon detectors are being placed in each home occupied by the study participants in the past 30 years. Results of the study should be available in 1990.

Sweden study

In Stockholm, scientists from NCI and the Swedish National Institute of Environmental Medicine are assessing residential radon risk in a study involving 200 women diagnosed with lung cancer between November 1984 and March 1986, and 400 controls. Stockholm has high indoor radon levels due partly to the geologic formation upon which the city is built and partly to the use of building materials having high radon content.

Scientists have already obtained information on residential histories and on other possible cancer risk factors, such as passive smoking and diet. They are currently measuring radon levels in all of the residences where study participants lived for two or more years. They have completed an evaluation of dosimetry techniques, contrasting measurements made by two types of detectors, and have found the two methods to agree reasonably well.

China study

NCI's Biostatistics Branch and the Liaoning Province Public Health & Antiepidemic Station is conducting a study in Shenyang to assess the lung cancer risk associated with residential pollutants (e.g., radon and hydrocarbons) as well as with outdoor air pollutants. Shenyang, one of the most polluted cities in the world, is located in Liaoning Province, the region with the highest incidence rate of lung cancer in China.

Investigators are currently placing radon detectors and taking measurements in the homes of 460 women with lung cancer diagnosed between March 1986 and March 1987 and a comparable number of controls.

Only women are included in the four studies because they are more likely to spend time at home than men, making residential measurements among women more relevant to the question of lung cancer risk, Boice said. Further, women are less likely than men to smoke or to be exposed to other occupational carcinogens.

Boice noted that evaluation of actual radon risks may be complicated by the inherent study limitations, including the presence of other risk factors for lung cancer, notably smoking; the mobility of people throughout their lifetimes, changing overall lifetime exposure patterns; and the difficulty of assessing the amount of time people spend in their homes. Additionally, varying radon levels in different parts of houses and modifications to homes in the past 20 to 30 years might influence actual radon exposure. Detecting only small increases

in lung cancer risk also may be difficult because radon levels in homes are relatively low (much lower than in uranium mines).

In spite of study limitations, the investigators believe the projects will ultimately provide a clearer indication of the magnitude of the health hazard associated with exposure to residential radon.

Boice told the NCAB that National Academy of Science models predict that about 10,000 lung cancer deaths a year in the U.S. are associated with residential radon exposure. However, 87 percent of those are smokers.

NCAB member Howard Temin said that the high rate of smokers in that group "certainly suggests that the most cost effective way of dealing with this is to stop smoking."

ONS Sponsors Prevention Workshop On Asian, Hispanic, Native Americans

The Oncology Nursing Society, through a grant from NCI, is sponsoring a three day nursing workshop on cancer prevention and detection in Asian Pacific, Hispanic and Native Americans Oct. 29-31 in Chicago.

Registered nurses interested in participating may submit applications to ONS. For those selected to attend, there will be no registration fee, and transportation and hotel costs will be covered.

The workshop content will include lectures, discussions and practice sessions on:

- *Health behaviors and practices of Asian Pacific, Hispanic, and Native Americans which facilitate or impede cancer prevention and detection.

- *Cancer risk appraisal.

- *Physical assessment skills.

Topics will focus on the prevention and detection of prostate, colorectal, lung, breast, gynecological and other cancer sites of high incidence among the specific minority groups. Participants will be invited to assist in the development of a prevention and early detection manual.

To be eligible, an applicant must be a registered nurse and employed in a clinical or educational setting that serves Asian Pacific, Hispanic or Native American clients.

Completed applications must be received by July 29. A letter of support for the applicant must accompany each application.

Applications and additional information may be obtained from Oncology Nursing Society, Dept. of Education, 1016 Greentree Rd., Pittsburgh, PA 15220, phone 412/921-7373.

New Publications

"The Final Act," by Paul Goldberg. This has no relationship to cancer, except that the author is editor of *Cancer Economics*. The true and heretofore untold story of the brave band of Soviet citizens who, with shrewd use of the American press and openly confronting the authorities, tried to shame their government into respecting human rights. William Morrow, \$19.95.

"Building A Healthy America," by Terry Lierman. Combines vital statistics and information with a how to course on lobbying, by one of Washington D.C.'s leading health lobbyists. Lierman is president of Capitol Associates Inc., former staff director of the Senate Labor-HHS Appropriations Subcommittee and former NCI staff member. Mary Ann Liebert Inc., 1651 Third Ave., New York 10128, phone 212/289-2300, \$19 U.S., \$26 overseas.

"I Can Cope: Staying Healthy with Cancer," by Judi Johnson and Linda Klein. A comprehensive resource for cancer patients and their families. Johnson is oncology nursing director at North Memorial Medical Center in Minneapolis, and is former president of the Oncology Nursing Society. Klein is a professional writer. DCI Publishing, Minneapolis, \$8.95.

"What Are Clinical Trials All About," by Eleanor Nealon, chief of the Reports & Inquiries Branch of NCI's Office of Cancer Communications. Free from OCC, NCI, Bldg 31 Rm 10A29, Bethesda, MD 20892.

"Maximizing Bereavement Services Within Limited Resources," free from Health Resources Publishing, P.O. Box 1442, Wall Township, NJ 07719. Send self addressed stamped envelope.

"Consensus Development Conference on Magnetic Resonance Imaging," by NIH. Report of the consensus development panel from the conference held last fall (summaries of the draft report appeared in *The Cancer Letter*, Nov. 6, 1987, and *The Clinical Cancer Letter*, November, 1987). Free from Michael Bernstein, Office of Medical Applications of Research, NIH, Bldg 1 Rm 216, Bethesda, MD 20892.

"50 Fast Facts to Reduce Your Risk of Cancer," by Univ. of Texas M.D. Anderson Cancer Center. Covers smoking, diet, sun exposure and early detection. Free, with self addressed stamped (65 cents) envelope, from M.D. Anderson, 1515 Holcombe Blvd., HMB 229, Houston, TX 77030.

Pamphlets available from the American College of Radiology: "MRI: A Patient's Guide to Magnetic Resonance Imaging;" "CT: A

Patient's Guide to Computed Tomography;" and "Interventional Radiology: A Patient's Guide to 'Surgery Without a Scalpel'." Single copies are free; multiple copies, minimum order 50, \$10. Phone 1-800/227-7762.

"Cancer Chemotherapy Guidelines and Recommendations for Nursing Education and Practice," by the Oncology Nursing Society. Available in a series of five modules which can be purchased separately (\$4 each for ONS members, \$5 nonmembers), or as a set \$18 ONS member, \$23 nonmember). ONS, 1016 Greentree Rd., Pittsburgh, PA 15220, phone 412/921-7373.

"Adriamycin Adjuvant Trials Update in Breast Cancer," edited by Nancy Phillips. Monograph, available free from Meniscus Educational Institute, PO Box 30,000, Philadelphia, PA 19103.

"Living with Lung Cancer," by Barbara Cox, David Carr and Robert Lee. Up to date information about lung cancer, its treatment, and its prognosis. Triad Publishing Co., 1110 NW 8th Ave., Gainesville, FL 32601, \$7.95.

"Manual for Staging of Cancer," edited by Oliver Behrs, Donald Henson, Robert Hutter and Max Myers under auspices of the American Joint Committee on Cancer. Third edition. J.B. Lippincott, East Washington Square, Philadelphia, PA 19105, 24.50.

"Policy Implications of the 1986 Surgeon General's Report on Involuntary Smoking," proceedings of last year's conference sponsored by the Institute for the Study of Smoking Behavior & Policy and the Brookings Institution. \$10 per copy (less than 5) or \$7.50 (five or more) from the Institute, John F. Kennedy School of Government, Harvard Univ., 79 John F. Kennedy St., Cambridge, MA 02138.

"Chemical Carcinogenesis Research Information System Database," produced by NCI in 9 track computer tape. Available either in 1600 or 6250 bpi. National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161, \$200.

Available from S. Karger Publishers Inc., 79 Fifth Ave., New York 10003; or S. Karger AG, PO Box CH-4009, Basel, Switzerland:

--"Human Gene Mapping 9," edited by J. Frezal and H.P. Klinger. 9th international workshop on human gene mapping, Paris, Sept., 1987, \$129.50.

--"Endocrine Management of Cancer," two volumes. Vol. 1, \$89.50; Vol. 2, \$96.75; complete set, \$167.50.

--"Immunomodulation of Neoplasia," edited by J.M. Cruse and R.E. Lewis. \$158.75.

Available from Alan R. Liss Inc., 41 E. 11th St., New York 10003:

--"Journal of Surgical Oncology," Gerald Murphy, editor in chief. One year subscription (12 issues), \$96 personal rate, \$360 institutional rate.

--"Medical and Pediatric Oncology," Alvin Mauer, editor in chief. One year subscription (six issues) \$60 personal rate, \$160 institutional rate.

--"Seminars in Surgical Oncology," Gerald Murphy, editor in chief. One year subscription (four issues), \$45 personal rate, \$80 institutional rate.

--"International Journal of Cancer," N. Odartchenko, editor in chief. Official publication of the International Union Against Cancer. One year subscription (12 issues), \$414.

Available from Raven Press, 1185 Ave. of the Americas, New York 10036, phone 212/869-3495:

--"Genotypic, Phenotypic and Functional Aspects of Haematopoiesis," edited by F. Grignani, M.F. Martelli and D.Y. Mason. \$79.

--"Advances in Immunohistochemistry," edited by Ronald DeLellis. \$79.

--"The Status of Differentiation Therapy of Cancer," edited by Samuel Waxman, G.B. Rossi and F. Takaku. \$61.

"Adjuvant Systemic Therapy for Breast Cancer: Advanced Treatment Concepts," a new interactive video program produced by ICI Pharma for physicians on applications of the latest research in breast cancer. Available for three week periods on request from ICI Pharma at no cost. Contact Effective Communication Arts, phone 212/333-5656.

NCI CONTRACT AWARDS

Title: Identification of HPV by nonradioactive DNA probes
Contractor: Digene Diagnostics Inc., \$500,000

Title: Specific antibodies to human and animal polyoma virus tumor antigens
Contractor: Integrated Genetics Inc., \$273,000

The Cancer Letter

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