THE CANCER LETTER

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Chemical Industry Sues NTP Over Listing PDCB As Carcinogen; Environmental Groups Join Defense

Three chemical companies and two associations are suing the Dept. of Health & Human Services to prevent the department from including the substance p-dichlorobenzene in

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In Brief

Groups Agree On Mammography Screening; Money Bill Markups Due After July 4 Recess

ELEVEN NATIONAL organizations have reached an agreement on mammography screening guidelines which basically are those recommended by NCI and the American Cancer Society: For women age 40-49, mammograms every one to two years; for those 50 and over, every year. The new agreement does not address the issue of base line mammograms for women under 40. Other organizations endorsing the agreement are the American Academy of Family Physicians, American Assn. of Women Radiologists, American College of Radiology, American Medical Assn., American Osteopathic College of Radiology, American Society for Therapeutic Radiology & Oncology, American Society of Internal Medicine, College of American Pathologists, and the National Medical Assn. . . . **JOHN ANTOINE,** director of NCI's Radiation Research Program, will chair an interinstitute committee in diagnostic imaging, at NIH Director James Wyngaarden's request. The committee will define NIH wide goals for supporting imaging research and coordinate extramural research. Wyngaarden is considering an intramural research program in diagnostic imaging. . . . **HOUSE AND** Senate Labor-HHS-Education Appropriations Committees have not yet scheduled their budget markups, but it will take place sometime after the July 4 recess. . . . **GEORGE LEWIS** is retiring as chairman of the Gynecologic Oncology Group. He will be succeeded by **Robert Park** of Walter Reed Army Medical Center. . . . **BRIAN KIMES,** director of the Extramural Research Program of NCI's Div. of Cancer Biology & Diagnosis, is on temporary detail to the new NIH Office of Scientific Integrity, which he will head until a permanent director has been recruited. While he is away, **Faye Austin,** chief of the Cancer Immunology Branch, is in charge of DCBD extramural research. Kimes will continue to chair NCI's Organ Systems Coordinating Committee. **Dorothy MacFarlane,** chief of quality assurance in the Div. of Cancer Treatment's Regulatory Affairs Branch, has also been detailed to OSI temporarily.

Chemical Industry Battles NTP, Environmentalist Groups Over PDCB

(Continued from page 1)
the annual a report on carcinogens published by the National Toxicology Program.

The lawsuit, filed in U.S. District Court in the Western District of Louisiana, challenges the criteria for classifying substances as carcinogens or possible carcinogens and seeks an injunction to stop the publication of the data on PDCB in the HHS "Fifth Annual Report on Carcinogens."

PDCB is a chemical widely used for the control of moths and odor, and as an industrial intermediate.

The plaintiffs are the Synthetic Organic Chemical Manufacturers Assn., Chlorobenzene Producers Assn., PPG Industries Inc., Lagasse Brothers Inc. and Standard Chlorine Chemical Co. They charge that the National Toxicology Program set procedures for the classification that improperly exclude evidence that could mitigate a finding about a substance's carcinogenicity.

The suit names as defendants the Secretary and undersecretary of HHS and the NTP director.

HHS has filed a motion to dismiss the suit. No hearing date has been set.

Federal law requires HHS to classify chemicals known to be carcinogens or "reasonably anticipated to be carcinogens to which a significant number of persons residing in the U.S. are exposed," and to publish the findings in an annual report. The first report was published in 1982.

NTP, a component of the National Institute of Environmental Health Sciences, has responsibility for classifying substances as carcinogens and preparation of the annual report.

The classification of a substance as a carcinogen automatically triggers reporting and disclosure obligations under federal and state laws. Classification of a substance also may subject the manufacturer to civil and criminal liability under state law.

The suit was filed in Louisiana because the three chemical companies manufacture or sell PDCB there. PPG Industries Inc. has a chemical manufacturing facility in the district and Lagasse Brothers Inc. is a Louisiana corporation.

Other groups have become involved in the lawsuit. The Chemical Manufacturers Assn. was granted its motion to intervene on the side of the plaintiffs. The National Resources Defense Council and the Environmental Defense Fund filed a motion to intervene on behalf of the defendants.

The "Fifth Annual Report on Carcinogens" lists 29 substances and occupational exposures known to be carcinogens and 119 substances classified as "reasonably anticipated to be carcinogens," including PDCB.

According to the suit, the criteria for classification for the fifth report was changed in 1986. That resulted in 21 additional substances being listed as possible carcinogens.

At that time, the Chlorobenzene Producers Assn. objected to the change and submitted evidence it said showed that PDCB did not cause cancer in an inhalation study with rats.

The group also said that an NTP animal study showing that the substance did cause cancer was the result of "a biological mechanism unique to the rodent studies and not reproducible in humans."

CPA requested that the criteria be revised to require HHS to consider evidence that does not support the listing of substances as carcinogens, including evidence that the animal test results do no demonstrate a human cancer threat.

In March 1987, NTP held proceedings to reconsider the procedures and criteria. In September, NTP decided that the evidence submitted by CPA was not to be considered and that PDCB should be classified as a possible carcinogen.

In December 1987, the HHS Committee to Coordinate Environmental Health and Related Programs was convened to review the criteria. The committee issued a report in November 1988, supporting the NTP's criteria.

The plaintiffs argue that the criteria "narrowly limit the type of evidence that NTP and the Secretary may consider."

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Editor: Jerry D. Boyd

Associate Editors:
Patricia Williams, Kirsten Boyd Goldberg

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Under the classification procedures adopted by HHS, a substance is classified as reasonably anticipated to be a carcinogen if there is "sufficient evidence of carcinogenicity" from animal studies. Positive test results from studies of two species of laboratory animals are considered sufficient evidence.

"Evidence that a carcinogenic result in laboratory animals cannot occur or is unlikely to occur in humans does not fit within the criteria and cannot be considered to negate 'sufficient evidence' in animals," the suit contends.

The plaintiffs charge that the criteria and their application to the classification of PDCB violate their right to due process.

"The classification procedures and criteria adopted by the department create an irrebuttable presumption that if a substance produces positive results in carcinogenicity studies in multiple species, it is presumed by the department to be reasonably anticipated to pose a carcinogenic hazard," the plaintiffs said. "The criteria do not allow for the presentation of evidence of any kind showing that, for specific substances, particular animal studies may not be valid predictors of human carcinogenicity."

The Environmental Protection Agency decided in 1987 that consideration of CPA's additional evidence was necessary to determine the carcinogenicity of PDCB. EPA decided that the substance should not be classified as a probable carcinogen, as EPA had proposed, but as a possible carcinogen.

In the suit, the plaintiffs ask the court to declare the NTP classification procedures and criteria invalid and to issue an injunction stopping the publication of the data on PDCB in the "Annual Report on Carcinogens."

The suit also asks that HHS be permanently enjoined from applying the classification procedures to PDCB "and any other substance."

NCI To Be More Flexible In Funding RFAs With Scores Above Payline

The NCI Executive Committee has agreed to a new policy that will allow NCI program directors to propose funding plans for RFAs that would provide more flexibility in funding grants above priority score paylines, and to create an "RFA pool" from funds left over when RFAs do not use up all the money set aside for them.

The new policy resulted in part from the switch of RO1 and PO1 awards to percentile paylines from priority scores. It was further triggered by a protest of irate applicants for an RFA on magnetic resonance imaging.

Div. of Cancer Treatment Director Bruce Chabner discussed the new policy at the last meeting of the division's Board of Scientific Counselors.

For regular RO1 grants, and for PO1s, applications reviewed by a given study section are ranked by percentile and those that fall within the percentile payline (20.9 percent this year) are funded.

RFAs (requests for applications) are generated by NCI's program divisions, with approval of their respective boards of scientific counselors. Each RFA includes a specific sum of money which represents NCI staff's best estimate of the amount required to fund the grants expected to be scored in the fundable range.

Since each RFA is reviewed by special study sections, there tend to be too few grants to assign percentiles. Funding of them, therefore, is made on the basis of priority scores. An effort is made to make the RFA paylines comparable to those of RO1s/PO1s by estimating that a payline of X percentile is equivalent to a payline of X priority score.

That does not always come out equitably from the various special study sections. Chabner cited an example in which an arbitrary payline of 151 was assigned for RFAs, but several respondents to the MRI RFA received scores of 160 to 170. DCT program staff felt some were meritorious, but they were not funded.

"As might be expected, the disappointed applicants protested," which prompted the NCI Executive Committee to review the issue, Chabner said.

Under the new policy, program directors would propose a funding plan for each RFA. The funding plan will require the approval of the Executive Committee.

"For the current year, we have funded at least two applications for each RFA issued, including three for the RFA on MRI imaging," Chabner said.

The new policy, the final details of which have not yet been determined, would provide for transfer of unused RFA set aside funds to a special pool. Those funds now revert to the RO1/PO1 pool. NCI divisions would compete for special pool funds, as they do now for other surplus money. That money could be used to support RFA generated grants which scored above the paylines.

"The board will have to keep in mind that, under the new policy, concept approval of new RFAs will remove funds from the grants pool and allow the funding of applications above the payline set for regular grants," Chabner said.

"I strongly believe in the use of the RFA as a mechanism of encouraging new directions in research, but also believe that the mechanism should be used conservatively, since it reduces our ability to fund regular grants."

ONS Membership Over 15,000, End Not In Sight; Political Clout Grows

Most of the professional oncologic societies experienced strong membership growth during the past year, but the Oncology Nursing Society continues to run away from them all.

ONS membership grew by more than 2,000 in the 12 months preceding last month's 14th congress in San Francisco, going over 15,000. The number of ONS chapters grew from 110 to 123.

The American Society of Clinical Oncology had a net increase of more than 700 members, going over 8,000. And the American Assn. for Cancer Research increased by a healthy 15 percent, to 5,450.

ONS is in a class by itself, and the end apparently is not in sight. Deborah Mayer, immediate past president, estimates that there are 150,000 individuals "that we can consider oncology nurses by our definition." Some ONS leaders believe the organization's membership could hit 50,000. The newly adopted ONS strategic plan allows for a membership total of 20,000 by 1992.

All those numbers represent tremendous political power potential, the prospect of which ONS is very well aware. During the past year, the society hired a director of government relations (Cynthia McCormick) and did some lobbying for appointment of a nurse to the National Cancer Advisory Board; inclusion of tobacco addiction in education and drug addiction treatment programs; Medicare coverage for screening mammography; and armed services policies concerning sale and pricing of tobacco products.

ONS is also interested in the vital issues of NCI's budget, reauthorization of the National Cancer Act, reimbursement for clinical trials and for nursing services, nursing education, and various tobacco issues.

An informed and well organized group of 15,000 nurses could have enormous impact on Congress, and on the state legislatures where many of the battles for support of cancer research and cancer control will be fought in the 1990s. Helping McCormick provide that information and organization is ONS' Government Relations Committee, chaired last year by Kerry Harwood and this year by Mary McCabe.

The 1990 ONS annual congress will be held in Washington D.C., with 5,000 or more expected to attend. McCabe's committee, with the theme, "ONS Nurses Vote," hopes to unleash those members on Capitol Hill.

Pamela Haylock, moderator of a session at the San Francisco congress on "Activating Political Action," said "there is power in numbers and power in unanimity," noting there are two million nurses in the U.S. But, "Nurses in general are rookies in the political arena."

Marguerite Donoghue, director of legislative affairs for Capitol Associates, a Washington health consulting firm, addressed the session and commented that the government spends more in 22 months on defense related research and development than NIH has spent in its 100 year history. "We're not addressing health care needs because we are not communicating those needs to the people we are voting into power."

Donoghue said that Sen. Edward Kennedy (D-MA) has noted that nurses are the largest single bloc of health professionals "but have not translated that fact into power. People like me in Washington can provide information, the framework, and advice, but you have to provide the (votes and contacts with the legislators)."

Donoghue, a former oncology nurse and an ONS member, urged nurses to "get involved," invite their congressmen to visit cancer centers and meet with local chapters, encourage their patients to write their legislators. "The response on the Hill to nurses is very good, and there is a tremendous response to cancer patients."

The President's FY 1990 budget for NCI is $600 million under the bypass budget, Donoghue said. "Last year, NCI was the only institute at NIH with a budget below the President's request. It was the smallest percentage increase (over the previous year) in the last decade. That translated into fewer clinical trials, fewer cancer control and prevention studies. We know that 178,000 people will die this year who could have been saved with earlier detection."

Donoghue suggested that among the issues oncology nurses might take up, one might be

the increasing incidence of cancer in women. "NCI has no program to address that.

"People in Washington are making decisions about how your patients will be cared for. You know more about what is needed than they do. The money is there. We're just not spending it in the right way."

Dolores Esparza, the new ONS president, intends during her term to develop projects involving cancer in ethnic groups and oncology nursing administration. "I'm talking about team building, creative staffing, work distribution," Esparza told **The Cancer Letter**. Example of the job related help she thinks ONS can give: "We can prepare them better to negotiate their salaries."

They can also negotiate for nurses aides and ward secretaries, "so we can get rid of things that aren't nursing," Mayer suggested. Those include making beds, delivering food, running to the pharmacy, "doing a lot of other peoples' jobs. How much time do we spend giving chemotherapy and how much time getting records and doing other clerical work?"

An ONS subsidiary is the Oncology Nursing Certification Corp. which since 1986 has administered the certification examinations in the program developed by the society. Through 1988, a total of 5,116 passed the exam and earned the right to the title, Oncology Certified Nurse.

A controversy emerged this year as the time for recertification of the first group gets closer. Medical oncologists never have to go in for recertification, some nurses argued, so why should they?

The corporation nevertheless reaffirmed the decision for renewal every four years. The sites approved for the 1990 examinations are Los Angeles, Denver, Dallas, Chicago, New York and Atlanta.

Has certification had any impact on the profession yet?

Mayer said that OCNs appear to have been somewhat successful in getting salary increases, particularly in the Northeast and West Coast. Esparza added that OCNs are using certification in salary negotiations and are making a case for better pay. Some hospitals are using the fact that they have OCNs on their staffs as marketing tools.

ONS award winners:

Distinguished Service Award--Anne Gardner, St. Vincent Hospital and Medical Center, Portland, OR.

Clinical Lectureship--Mary Cunningham, M.D. Anderson Cancer Center.

Excellence in Cancer Nursing Education Award--Joan Piemme, Cancer Nursing Service, NIH.

Excellence in Cancer Nursing Administration Award--Linda Jones, Univ. of Rochester Cancer Center.

Excellence in Cancer Nursing Research Award--Laurel Northouse, Wayne State Univ. College of Nursing.

Excellence in Publication Award for Clinical Practice--Mary Fraser, NIH Cancer Nursing Service, and Margaret Tucker, NCI.

Excellence in Publication Award for Research--Sally Thorne, Univ. of British Columbia School of Nursing.

Quality of Life Award--Betty Ferrell, City of Hope Medical Center.

Mary Mogensen Flaherty Annual Memorial Lecture--Colleen Scanlon, Calvary Hospital, Bronx, NY.

Public Education Award--Fredrica Preston, Univ. of Pennsylvania Cancer Center.

Pearl Moore Career Development Award--Nadine Nakazawa-Carpol, Stanford Univ. Hospital.

Hatfield Asks AACR To Join Him In Forming "Triangle Coalition"

The top ranking Republican member of the Senate Appropriations Committee, Mark Hatfield of Oregon, asked American Assn. for Cancer Research members to join him in building a "triangle coalition" from science, industry and education to fight for increased federal support of science and education.

"I'm here to say that tomorrow is in trouble," Hatfield commented in his remarks at an AACR plenary session. There has been a "shocking erosion" of teachers qualified to teach high school science. "Everyone in medical research and science should be involved in building science education at every level."

Hatfield opened by intoning, "President Busch," pausing while new AACR President Harris Busch joined in the laughter, and adding, "It's nice to have the opportunity to go east or west and address President Bus(c)h."

But that was the only favorable remark Hatfield had for the President based on the East Coast, or for Congress.

"We have an agreement on the 1990 fiscal year budget, and I have to tell you it's as

phony as every other budget since the Budget Act process was established," Hatfield said. "Gramm-Rudman-Hollings is gimmickry. The line item veto (requested by the President) is a gimmick. The whole process is an exercise in double talk."

Balancing the budget is simple, Hatfield insisted. "All we have to do is balance expenditures with revenue."

Hatfield came down strongly on the side of those who insist military spending should be cut sharply in favor of increased spending on health and education. "We have the resources but not the priorities. We can increase priorities that enhance life if we reduce the priorities for destroying life. We have public opinion going for us. In a recent survey, 53 percent of Americans supported increased funding for health research, and only three percent supported more money for weapons.

"It's time to build a coalition for all medical research. There is not enough pressure for health research under current priorities. We must build a constituency to demand an increased base for all medical research, not just to redistribute the existing base."

Responding to questions from members, Hatfield said:

--**Training.** "We're on the defensive, trying to hold the line. NIH was supporting 11,000 trainees, but when we increased stipends, the number was reduced to 10,000. We've communicated a psychological bombshell. We also have to be conscious of the trainors, by retaining NIH scientists. The average salary of NIH scientists is $75,000; in academia, it is $135,000. In answer to your question, what are we doing about training, the answer is nothing."

--**NCI's budget,** which in the last 10 years has been increased on a percentage basis less than any other at NIH. "Stalin said that the death of one person is a tragedy, but the death of millions is a statistic. We have to get the face of Marvella Bayh back in front. She reminded us of the need to maintain our commitment to the Cancer Program."

--Cutting military spending is difficult when it brings jobs into most congressional districts. Every congressional district also has people employed in cancer treatment and research. "The problem is that cancer is a $30 billion cost to the economy, and the benefits of research are coming in, but not to OMB, like timber sale receipts."

NCI Director Samuel Broder kept on the subject of science and avoided budgets and politics in his address at the AACR meeting. Broder said he thought there will be "major breakthroughs in cancer research in the next decade." He listed several areas of research in which he said these advances probably would occur.

"We will see a number of advances in cancer prevention, diagnosis and treatment. We will see an era in which there is highly individualized therapy, customized on a genetic and molecular level in individual patients in a way that would have been almost impossible to imagine a few years ago.

"We will see increasingly important refinements in surgery, radiation and chemotherapy and their interactions as time moves along.

"I anticipate dramatic insight in three major areas of molecular cell growth. These would relate to oncogenes and suppressor genes:

--"We will see the definition of the molecular cloning of genes, including an array of growth factors for different cells and their surface receptors. In the first of these areas, we will see an extended series of new oncogenes, already to be added to the list of more than 40. We will have expansions of our concept of the suppressor genes.

--"Two animal model systems will be critical in defining the function of these oncogenes and suppressor genes. These include the transgenic model and gene knockout methodology.... A second area of even greater activity in the future will be the study of DNA sequences and the transacting protein factors that regulate gene activity.

--"To date at least seven interleukin molecules and perhaps four major hematopoietic growth factors have been purified. I feel very strongly there will be an array of new growth factors.

"I think we will see a number of developments that will affect every aspect of the Cancer Institute program. We will see major expansions in our ability to prevent cancer in part by understanding based on some of the molecular concepts.

"How various factors in the workplace, how various factors in our environment, how certain behavioral activities of which smoking is but one, may precipitate in the cascade of suppressor gene disfunction and oncogene activation, and then we will be able to institute appropriate preventive measures.

"I think we will have major advances in

prognosis. We will have a number of important gene factors. Some of them may be linked to the new oncogenes. . .

"I see this as not something that is science fiction, but as something that will be here in the very near future.

"I think these are important things and we need to prepare for them. We also need to make sure that we have clinical trials methods that will be able to implement knowledge. I am concerned about the ability to transfer new knowledge at a clinical level.

"I am concerned and need your help to make sure that we have appropriate individuals, young men and women making a commitment to go into science, to go into biomedical science....

"All biological systems need renewal. We in the cancer community are no different. I do feel that we will need to explore potentially new ways of trying to reach young people, even before college. I hope you will share your ideas with me."

Lawrence Loeb, who completed his term as AACR president, focused on "an aspect of carcinogenesis that needs further in depth study because it could be a major cause of human cancers" and of the impact of molecular biology on cancer research in his presidential address.

On the carcinogenesis topic, Loeb said, "I am referring to the Damoclean possibility that certain normal endogenous cellular processes are mutagenic and that this intrinsic mutagenesis is a significant factor in the etiology and pathogenesis of some human cancers. . . In the last few years we have created a veritable explosion in knowledge about how chemical carcinogens damage DNA. We have extended concepts formulated by the Millers; chemical carcinogens are electrophiles or are converted to electrophiles by cellular activating enzymes, and it is the resultant activated species that react with many cellular macromolecules including DNA. It is the interaction with DNA that marks cancer as a disease of genes. Not a classically inherited disease, but rather a disease that is transmitted from parent cell to daughter cell with each division cycle, and a disease that is invariably associated with altered nucleotide sequences in DNA and/or with changes in gene transcription. . .

"Mutagenesis results from unrepaired DNA damage. During each cell division cycle, DNA polymerases copy past the damaged DNA and insert noncomplementary nucleotides opposite the site of damage. In this model, mutations would not result from error free DNA repair nor from unrepaired lesions that are copied with a change in sequence of the newly replicated DNA. Furthermore, mutations would not occur in cells that fail to undergo DNA replication. There are regions of DNA prone to damage--"hot spots" for mutagenesis--however, in light of our lack of knowledge about specific nucleotide sequences that are hot spots, the simple assumption is that both DNA damage and mutagenesis are randomly distributed over the genome."

Loeb discussed spontaneous mutations as a cause of cancer, mutation rate and cancer, potential sources of spontaneous mutations, chemical instability of DNA, mutagenesis by oxygen free radicals, mutagenesis due to errors in DNA replication, and the spectrum of spontaneous mutations in eucaryotic cells.

"I have considered the possibility that spontaneous mutations contribute causally to human cancer. This contribution is likely to be most significant for cancers with no known risk factors and/or for cancers whose incidence is age dependent and similar, with respect to genetic background or geography. Molecular methods to identify mutations in genes that determine the malignant phenotype should allow us to evaluate the contribution of spontaneous mutagenesis to carcinogenesis. Thus, for each individual it could be only a matter of time before the thread that holds the sword of Damocles breaks,s and the carcinogenic process is started. A superficial analysis would suggest that many cancers are inevitable.

Molecular Differences

"A deeper inspection would highlight our lack of understanding of molecular differences between normal and cancer cells and the cell's mechanisms for accurate replication of DNA. This knowledge is required before we can even consider how to manipulate these factors. Thus, molecular biology offers the power and the promise to unravel the mysteries of human cancer.

"I believe we are witnessing a quantum leap in our understanding of how cells work. This revolution is spearheaded by molecular biology. . . . I submit that molecular biology constitutes a series of new techniques of unprecedented power--techniques that will increasingly change most aspects of cancer research. Thus it is imperative that these techniques become part of the armamentarium of current and future cancer investigators."

New Publications

New titles from CRC Press, 2000 Corporate Blvd. N.W., Boca Raton, FL 33431. Tel. 800/272-7737, in Florida call collect 407/994-0563. All titles free on 30 day approval:

"Genetic Epidemiology of Cancer," edited by Henry Lynch and Takeshi Hirayama. May 1989. $167 U.S., $196 elsewhere. An accounting of cancer from standpoint of genetic and environmental factors.

"Developments in Cancer Chemotherapy, Vol. 2," edited by Robert Glazer. $99.50 U.S., $117 elsewhere. New experimental approaches to treatment that have evolved from recent advances in cell and molecular biology. Vol. 1, published in 1984, available for $59.95.

"CRC Handbook of Surgical Oncology," by E. George Elias. $124.95 U.S., $147 elsewhere. Reference guide to ongoing clinical trials and surgical options for cancer management.

"Breast Cancer," edited by Barth Hoogstraten and Robert McDivitt. $105.50 U.S., $121.50 elsewhere. Recent developments in breast cancer diagnosis and management.

"Breast and Gynecologic Cancer Epidemiology," by Jennifer Kelsey and Nancy Hildreth. $75 U.S., $85 elsewhere. Review of literature on breast and gynecologic cancer epidemiology.

"Hemostasis and Cancer," by Laszlo Muszbeck. $148 U.S., $170 elsewhere. Review of relationship of cancer and hemostatic systems, based on material from the Hemostasis Cancer Symposium.

"Polycyclic Aromatic Hydrocarbon Carcinogenesis: Structure-Activity Relationships," edited by Shen Yang and B.D. Silverman. Two volumes each $125 U.S., $147 elsewhere. The role played by PAH structure in initiation of tumorigenesis.

"Benzene Carcinogenicity," edited by M. Aksoy. $95 U.S., $110 elsewhere. Aspects of benzene toxicity.

"Prolactin and Lesions in Breast, Uterus And Prostate," edited by Hiroshi Nagasawa. $145 U.S., $170 elsewhere. Reference to current status of clinical research, animal models and receptor problems.

"Macrophages and Cancer," edited by Gloria Heppner and Amy Fulton. $125 U.S., $147 elsewhere. Recent findings in macrophage biology as they relate to cancer.

"Resistance to Antineoplastic Drugs," edited by David Kessel. Two volumes each $125 U.S., $147 elsewhere.

"Coping with Survival: Support for People Living with Adult Leukemia and Lymphoma," published by the Leukemia Society of America. Available free to patients and health professionals. LSA, National Office, 733 Third Ave., New York 10017, phone 212/573-8484.

"Clinical Gynecologic Oncology," edited by Philip DiSaia. Mosby/Times Mirror, 11830 Westline Industrial Dr., St. Louis, MO 63146, phone 8--/325-4177 ext. 588.

"Searching for Health Information," by Vicki Freimuth, Judith Stein, and Thomas Kean. Univ. of Pennsylvania Press, PO Box 4836, Hampden Station, Baltimore, MD 21211, $49.95 cloth, $19.95 paper.

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-07317-19

Title: Storage and distribution of chemicals and drugs used in preclinical evaluation and development

Deadline: Approximately Aug. 31

The Drug Synthesis & Chemistry Branch of NCI's Developmental Therapeutics Program is seeking support services to operate and maintain DS&CB's chemical and drug repository. The principal objectives of the project are the receipt, storage, inventory, distribution, documentation, and control of synthetic compounds, bulk chemical drugs and crystalline natural products identified as potential anticancer and anti-AIDS agents. Presently, there are more than 600,000 compounds in storage, and approximately 10,000 additional new compounds enter the program annually.

The contractor must be capable of promptly responding to the needs of a rapidly evolving program and support the needs of disease oriented in vitro screens as well as biological prescreens. In addition, compounds must be shipped to research investigators both in the U.S. and in foreign countries.

The principal investigator should be trained in organic chemistry at the master's degree level from an accredited college or at the B.S. level with graduate courses in chemistry/biology and have experience in areas relevant to this work, including supervisory or managerial level responsibilities. The PI and all key personnel should be assigned to the project 100% of the time.

As a minimum requirement, licenses and permits for the storage and distribution of chemicals and drugs must be available at the time of the best and final offer and include (1) registration under the Controlled Dangerous Substances Act of 1970 from the Drug Enforcement Administration of the U.S. Dept. of Justice; (2) registration for controlled dangerous substances from the state in which the repository is located; and (3) permit to distribute from the state in which the repository is located.

This is a recompetition of a contract currently held by ERC Bioservices Corp. NCI expects to award one cost reimbursement contract for a period of five years beginning on or about Dec. 31, 1990.

Contract Specialist: Zetherine Gore
RCB Executive Plaza South Rm 603
301/496-8620