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DCPC Board Ponders Screening Recommendations: Should NCI Have Policies? If So, What Will They Be?

An ad hoc committee of the Board of Scientific Counselors of the Div. of Cancer Prevention & Control has taken on what could turn out to be one of the most difficult and contro-

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In Brief

CCOP Prospects Submit 130 Letters Of Intent; DeVita Recovering On Schedule From Surgery

A TOTAL of 130 letters of intent were submitted by community organizations which indicated they would participate in the recompetition of NCI's Community Clinical Oncology Program. Letters of intent were also received from 24 institutions/organizations which want to serve as CCOP research bases. Ten of those were from cancer centers, two from state health departments and the rest from cooperative groups. Letters of intent are not mandatory; deadline for submission of applications is Oct. 23. . . . **NOW IT** can be told: the reason NCI Director Vincent DeVita did not attend the 14th International Cancer Congress in Budapest, and the reason he has not been in his office the last couple of weeks, is that he underwent surgery for removal of his gall bladder Sept. 5 in Washington. His recovery is proceeding on schedule, and he will be back at work full time soon. . . . **LAWRENCE EINHORN**, who developed the treatment at Indiana Univ. which has made testicular cancer one of the most curable malignancies, will deliver the Jeffery A. Gottlieb Memorial Lecture at the 30th annual Clinical Conference on Cancer in Houston Nov. 13. His topic will be, "Platinum Based Chemotherapy in the Management of Solid Tumors". . . . **EXPAND ASSOCIATES**, a Silver Spring, MD, management and support services firm, was the major provider of financial support and management expertise for the conference on U.S. Black and Caribbean populations held in Jamaica earlier this year (**The Cancer Letter**, Aug. 22). The Assn. of Black Hospital Pharmacists also participated in supporting the meeting. . . . **NOMINATIONS** are being accepted for the 10th annual Bristol-Myers Award for Distinguished Achievement in Cancer Research. Winner of the $50,000 prize will be chosen by a committee chaired this year by Henry Pitot, director of McArdle Laboratory at the Univ. of Wisconsin. Nominations may be made by medical schools, free standing hospitals and cancer research centers.

DCPC Board Developing Policy Recommendations On Screening

(Continued from page 1)
versial tasks ever faced by an NCI advisory group--determining whether NCI should advocate various screening techniques, and if so, recommending what they should be.

The committee, chaired by John Ultmann, director of the Univ. of Chicago Cancer Center, presented a draft of its recommendations to the Board Monday. Those recommendations came out of a series of meetings the committee has held over the past few months.

The committee was charged with developing recommendations on the following major areas:

1. Research for early detection--bridging the gap between basic laboratory research on new screening and diagnostic technologies and human clinical trials for efficacy.

2. Research to influence the health care system--refining existing technologies, influencing physician behavior related to screening in usual medical practice.

3. Research on health promotion and applications--public policy for screening, methods to exert leadership, liaison with industry and public health agencies, programs for the general public and high risk subpopulations.

The committee was asked to first address the health promotion and applications component in particular the issue of whether NCI ought to formulate specific policy recommendations for cancer screening and whether the recommendations ought to be consistent with those of other appropriate organizations. The report presented Monday focused on that aspect of the committee's charge.

The full Board was anything but unanimous on the report's recommendations, although most members agreed that (1) NCI should take positions on screening when appropriate and (2) its recommendations should be consistent with those of other organizations.

As for the report's specific recommendations on screening, Board members disagreed sharply and eventually voted to refer the report back to the committee for further discussion. Another interim report will be offered at the Board's January meeting.

The committee accepted the following special considerations in its deliberations:

*Definition--screening is defined as the search for disease in asymptomatic persons. "Asymptomatic" is further clarified to mean, asymptomatic for the condition for which the screening test or procedure is applied.

*Case finding vs. mass screening--Considerable discussion occurred regarding the setting where screening would occur. Ideally, screening should be integrated into the usual source of medical care and be provided as part of a health maintenance program or preventive care package, the report states. When screening is undertaken at alternate locations, the referral mechanisms for diagnostic evaluation and therapeutic services must be thoroughly established.

"In general, the majority of the group did not favor constructing a distinction between mass screening and case finding for the purpose of establishing screening recommendations," the report says. "Moreover, the majority agreed that one should apply the same criteria of validity in assessing screening interventions irrespective of the setting in which screening is applied."

NCI's Role

The committee concluded that NCI should establish policy statements for the following reasons:

1. NCI possesses or has access to knowledge and expertise to objectively assess the evidence for benefit from cancer screening.

2. Policy statements from NCI ought to be useful to clinicians and to the public in order to guide and inform their actions.

3. Policy statements by NCI may have an influence over policies made by other organizations such as the Health Care Financing Administration, health maintenance organizations, and other third party payers to secure reimbursement for screening.

4. The broad mission of cancer control for DCPC requires that NCI pursue a more vigorous and proactive role on screening recommendations than it has in the past. DCPC needs a clear statement of policy in order to guide research and program development, to promote the application of effective screening technologies by the professional and lay communities and to educate health professionals and the public regarding the benefits of cancer screening.

Criteria of evidence. Mortality reduction is the most highly desired health outcome, the report states. "The committee accepted the principle that there should be no statement that a certain type of evidence is a sine qua non for establishing a screening policy. While the randomized, controlled clinical trial showing a mortality reduction is the most highly regarded type of evidence,

it is not the only type of evidence that should be examined when recommending screening. The committee agreed that where direct evidence of benefit is not available, i.e., a randomized, controlled clinical trial demonstrating mortality reduction, the committee will weigh the indirect evidence in making its recommendations. Based on assessment of the evidence at hand and expert judgment, policies may be established for cancer sites and different audiences, settings and circumstances."

The committee decided that it would use a two tiered approach, with a formal policy statement where substantial agreement exists that scientific evidence for mortality benefit exists for a particular screening intervention; and an interim or working policy statement where indirect evidence exists but expert opion differs substantially.

Draft Policy Statements

Ultmann and other committee members emphasized that recommendations for policy statements in the report were to be considered as drafts and subject to revision. BSC Chairman Erwin Bettinghaus urged Board members to submit comments and suggestions to him, Ultmann or DCPC Director Peter Greenwald for the committee's consideration.

***Screening for breast cancer.**

1. For women over age 50, a formal policy should be established recommending low dose mammography with physical examination of the breast. There was no upper age limit for this policy statement.

The committee recognized that extending the interval to two years, as some studies suggest, "would place NCI out of step with the American Cancer Society and would revise the current NCI position which recommends routine mammogram and breast examination, which is interpreted to mean annual. The group decided to maintain a consistent position with ACS and the previous recommendations of NCI."

2. For women under age 50, an interim policy statement could be formulated recommending physical examination of the breast. The frequency and lower age limit were not identified.

"The committee concluded that a recommendation could not be made for mammography for this age group at this time. The committee recognized that this statement is inconsistent with the current position of ACS (but) concluded that sufficient evidence of benefit for mammography for women age 40-49 is not available to justify an interim policy recommendation."

***Screening for colon cancer.**

1. The committee concluded that available evidence does not support a formal policy statement.

2. A working or interim policy recommendation could be made on the best available indirect evidence which suggests that screening for colon cancer reduces mortality. However, experts have a wide range of uncertainty regarding expected benefits. Different combinations of screening interventions yield different estimates of mortality reduction.

3, "If formulated, an interim policy statement should be directed toward the practicing physician with a clear discussion of the limitations of the indirect evidence," the report says.

The majority of the committee accepted the current ACS position as an acceptable interim policy statement:

--For average risk individuals, an annual digital rectal examination starting at age 40; an annual fecal occult blood test, starting at age 50; sigmoidoscopy every three to five years, starting at age 50, after two negative annual examinations. There is no upper age limit in the recommendation. Persons at high risk of developing colorectal cancer should receive more frequent and intensive examinations beginning at an earlier age.

***Screening for cancer of the cervix.**

The committee proposed that a formal policy statement could be made for screening for cancer of the cervix which is compatible with the current ACS guidelines. There is evidence, although not from a randomized, controlled trial, which is sufficiently conclusive to establish a mortality benefit for screening for cancer of the cervix. The ages at which screening is offered have been established. The frequency of the intervention, the Pap smear, has been established. The International Union Against Cancer, the World Health Organization and ACS all have policy statements which substantially agree.

Screening is started when the woman becomes sexually active or age 20, whichever is later. The upper age is 65 when screening may be stopped, assuming that the individual has participated in a regular screening program prior to that age. The optimal frequency of screening is judged to be at three year intervals. Individuals under age

35 and at high risk may be tested more frequently.

***Screening for lung cancer.**

The committee concluded that no screening recommendation should be proposed for this cancer site. Primary prevention in the form of abstinance from tobacco use is the recommended policy position.

***Screening for other cancer sites.**

The committee considered whether screening recommendations ought to be formulated for other cancer sites--skin, prostate, oral cavity, lymph nodes, testis, ovary and endometrium. "While one finds merit in addressing these examinations during regular physical examination, and educational programs for health professionals and the public should encourage preventive behavior, the committee did not formulate screening recommendations for these sites. Self examination, examination by a physician and biopsy of suspicious lesions for early detection of melanoma were supported by the committee. Evidence pertaining to screening interventions for these cancer sites ought to be examined to determine the basis for screening recommendations," the report concludes.

David Eddy, a member of the committee, presented a mathematical model to the Board on colorectal cancer relating expected mortality in 1987 and periodically through the year 2020. The model projects mortality reductions as the result of screening, number of persons screened and costs. Those figures were related to screening by fecal occult blood test only, by that test and sigmoidoscopy triennially, and by that latter combination when assuming that only 10 percent of the population which otherwise would not be screened is screened.

The tables project that 19 million persons would be screened in 1987, 28 million in 2020. A reduction in less than 500 deaths are anticipated in 1987 at a net cost of nearly $39 million with the fecal occult blood test; 2,172 fewer deaths at a cost of over $1.17 billion with sigmodoscopy; and only 217 fewer deaths and costing $1.17 billion with the 10 percent assumption.

In the year 2020, those projections 41 million screened, with 914 fewer deaths at a cost of $5.8 billion with fecal occult blood test alone; 5,846 fewer deaths at a cost of $17.9 billion with sigmoidoscopy; and only 585 fewer deaths at $17.9 billion with the 10 percent assumption.

Eddy noted that the cost per year per life saved would be $15,000. "The question is, would I write out a check for $15,000 each year to extend my life? The answer is yes, I probably would."

Board member Virgil Loeb said, "I am somewhat disappointed in the written report. If we submit it as is, we will lose an opportunity for NCI to take the lead in a major public health issue. Mortality is not the only benefit from screening." Loeb suggested that morbidity and quality of life are other "population benefits" achievable through screening which are also part of NCI's mission. "I don't think anyone here is a prospect for immortality. If there is, it won't be because of something NCI does."

Loeb added that things like digital rectal examinations are proper in standard physical examinations. It is entirely appropriate for NCI to recommend them. It is ridiculous to say we don't know of a suspicious lesion should be biopsied. It's ridiculous to say that removing a dark skin lesion is not in the patient's best interest. I don't think we need to have positive proof of reduction in mortality to make those statements."

"I appreciate Dr. Loeb's point but we should keep straight where the real controversies are," Eddy responded. "We're talking about screening asymptomatic persons, not persons who need workups because of symptoms."

"That's my point," Loeb said. "NCI should make positive statements on these examinations. NCI should tell the public to look for suspicious signs and to get examinations. NCI should be an advocate for good public health measures."

"But we're in the real world, and with limited resources," Board member Kenneth Warner said. "Suppose as an alternative you take the $150 million and put it into TV commercials encouraging people not to smoke. At the moment we're talking about screening programs, not about convincing people they should shell out $50-60 for screening for something they don't understand."

"There are areas in this report to which any number of recommendations could be made," Board member Philip Cole said. "You haven't got time this week to discuss all the question I've got in mind."

Ultmann reiterated that "symptomatic persons are not the issue. If someone has a malignant mole and nothing is done, that's sad, but that is not the issue. Also, neither is it a question of doctors looking for

suspicious symptoms. The issue is screening asymptomatic people. What should NCI's policy be. Should we recommend a policy that causes 19 million people to be screened, with X reduction in mortality at a cost of X dollars?"

"It is our charge to develop a policy," Board member Paul Engstrom commented. "We have to get something on the table and make sure NCI lets the public and physicians know it supports screening for some cancers."

Board member Mary-Claire King noted that NCI's current recommendations on mammography for women under 50 are that those over 40 with a familial history of breast cancer and those over 35 who have had breast cancer themselves should have annual mammograms.

"In our recommendations there is no attempt to deal with populations with special risk factors," Ultmann said. "That's not the issue. The issue is with normal populations."

Diane Fink, vice president for professional education of the American Cancer Society who participated in some of the committee's meetings, said, "It's healthy to see what areas of disagreement there are. For those areas, I hope we can work out statements which will not confuse people." Fink said that an ACS committee chaired by Robert Hutter is in the process of reviewing the various guidelines.

Board member Robert McKenna, a former president of ACS, said, "The guidelines will change and should change. We should try to make (ACS and NCI) them as close as possible."

McKenna made the motion to refer the draft report back to the committee for further consideration of the guidelines. "I strongly endorse the position that NCI should have a policy," he added.

Cole said he supported the motion. "If the final report is anything like the present one, it would be a disaster." He criticized the report as "a confusion of ideas. It is unclear what is meant by some of the terminology. To suggest that we should not recommend a policy because it is inconsistent with previous NCI policy, well, that's small. NCI should be willing to accept and recommend new policy, if it is appropriate."

Fink agreed that ACS and NCI should collaborate and suggested that action be postponed for a few months while they and others work on screening guidelines.

The motion to refer was approved unanimously.

AZT Trial Unblinded After Prolonged Survival Noted in Some AIDS Patients

The control group of AIDS patients enrolled in clinical trials of azidothymidine have begun receiving the active drug after an announcement last Friday that treatment with the drug prolongs the survival of certain patients with acquired immune deficiency syndrome.

AZT manufacturer Burroughs Wellcome and Public Health Service officials made the announcement the day after an independent data and safety monitoring board recommended that the control group of the studies immediately begin receiving AZT. Researchers were immediately notified to make the change.

The study has found that AIDS patients who have experienced pneumocystis carinii pneumonia (PCP) and were given AZT had a significantly lower mortality rate than those receiving placebo.

To date, there have been 16 deaths among the 137 patients receiving placebos and only one death among the 145 patients receiving AZT, Dannie King, head of Burroughs Wellcome's Dept. of Infectious Diseases, told a press conference in Washington.

"The group receiving AZT also had a decreased number of other serious medical events including opportunistic infections, compared to the placebo group," he said. "In addition, weight gain and improvements in daily activities as well as the immune system that were noted during the phase 1 study have been confirmed in the phase 2 studies."

A total of 282 patients were enrolled in the trial, which began Feb. 18. Approximately half of the patients were enrolled by May 1, and the last patient was enrolled on June 30.
Only AIDS patients who were within four months of their first episode of pneumocystis carinii pneumonia were eligible. Patients with AIDS related complex (ARC) with significant disease progression such as weight loss, thrush, fever and herpes zoster, were also eligible for treatment on the protocol.

The monitoring board held its first meeting on Aug. 1, and decided to continue the study as designed (**The Cancer Letter**, Sept. 19). Although the next meeting of the board was not scheduled until Oct. 1, company officials noticed during their preparation for the review that one group had significantly fewer deaths than the other. The data were given to the board on Sept. 10, and additional data were supplied over the week

to insure that the data were not the result of statistical artifact or bias in either study group.

Burroughs Wellcome will be making the drug available free through NIH to "a certain narrow category of patients with AIDS who have been shown in this clinical trial to have received some benefit from AZT," David Barry, vice president of research for the firm, announced. When the drug is commercially available following FDA approval, it will be marketed, a company spokesperson said. No estimates for the anticipated cost of the drug were available.

The Senate recently voted to provide NIH with an additional $47 million to deliver AZT and other experimental AIDS drugs (**The Cancer Letter,** Sept. 19).

Assisstant Secretary for Health Robert Windom has charged FDA "to expedite the process whereby this drug is made available to AIDS patients."

AIDS drugs are already on a fast track system at FDA. The agency reported that "in general, FDA has been successful in reviewing IND applications for AIDS drugs in less than five days." Burroughs Wellcome submitted its IND application for AZT on June 14, 1985, and received the go ahead to start trials from FDA seven days later. AZT was awarded orphan drug status by FDA in July 1985.

FDA estimates that it expects to complete action on NDAs for AIDS drugs in less than 180 days.

Windom said the drug will be available for "persons with AIDS who have had PCP, who meet the eligibility criteria of the treatment IND protocol, and who are not currently participating in a clinical trial."

An estimated 6,000 AIDS patients in the U.S. are expected to be eligible for the Treatment IND protocol. As of Sept. 15, a total of 24,859 cases of AIDS have been reported in the U.S. Of that number, 13,689 are known to have died.

"The drug will be available only upon the recommendation of a physician with expertise in the diagnosis and management of AIDS, and only to patients otherwise eligible for the protocol," Windom said. Details of the treatment IND protocol will be finalized this week. It is not expected to include ARC patients.

While noting that "it has been a real challenge to go from experimental quantities to this stage" of manufacturing the compound, the Burroughs Wellcome spokesperson said the firm anticipates being able to meet the needs of the protocol.

Principal investigators from AIDS treatment evaluation units met Saturday to discuss five new AZT protocols to be underway soon. Two will be placebo controlled: one for patients with early Kaposi's sarcoma, the other for patients with persistent generalized lymphadenopathy. The other three dose range protocols will provide AZT to all patients enrolled. Those studies will try to determine the most effective dose range for AIDS patients with PCP, neurologic symptoms, and for symptomatic ARC patients.

Lasker Awards

Three world reknowned scientists credited with discovering the HTLV-3 AIDS virus learned this week that they were receiving the prestigious Albert Lasker Clinical Medical Research Award. Robert Gallo of NCI, Myron Essex of Harvard and Luc Montagnier of Pasteur Institute will share the prestigious award. It's the second Lasker Award for Gallo, who received the basic research award in 1982 for his discovery of the first virus known to be associated with human cancer, a leukemia.

RFAs Available

RFA 86-HL-33-P

Title: Biological and behavioral factors in smoking relapse

Application receipt date: Dec. 8

The Behavioral Medicine Branch of the Div. of Epidemiology & Clinical Applications of the National Heart, Lung & Blood Institute announces the availability of an RFA on the above subject. This program will support research on humans on the short and long term effects of smoking cessation and relapse. Studies may examine psychological, behavioral, environmental, social, and biological factors. In addition, researchers may consider socioeconomic, gender, and ethnic differences that differentially contribute to relapse. Studies that use multilevel assessment approaches (e.g., socio-cultural differences) to examine important predictors of smoking relapse may be particularly valuable. It is important that research designs seek to determine the biobehavioral processes through which relapse to tobacco use occurs, rather than merely enumerate population or gender differences.

Copies of the RFA may be obtained from Dr. Sally Shumaker, Behavioral Medicine Branch, DECA, NHLBI, NIH, Bethesda, MD 20892.

RFA 86-AI-11

Title: Pathogenesis of AIDS associated factors

Application receipt date: Jan. 5, 1987

The National Institute of Allergy & Infectious Diseases invites applications for regular research grants to identify factors which affect the outcome of HTLV-3/LAV infection (human T cell lymphotropic virus type 3/lymphadenopathy associated virus. The name human immunodeficiency virus [HIV] has been proposed for these viruses by the International Committee on the Taxonomy of Viruses).

NIAID wishes to encourage ongoing investigations and to stimulate new research to identify other factors besides HTLV-3/LAV which may enhance the severe immunosuppression characteristics of AIDS and/or promote the development of illnesses caused by the opportunistic agents and malignancies that follow HTLV-3/LAV infection. Such research should lead to an improved fundamental understanding of the interactions of the virus and other contributing factors, such as other viruses, environmental and social or familial factors, in the development of clinical HTLV-3/LAV infection. By identifying associated factors, investigators may be able to define additional opportunities for the prevention of AIDS.

While NIAID will receive primary assignment on most applications, decisions on the awarding unit assignments will follow programmatic guidelines established by NIH. NIAID has allocated $1.5 million for this program. The number of awards to be made is dependent upon receipt of a sufficient number of applications of high scientific merit and upon the availability of funds. The earliest possible award date is July 1, 1987.

A complete copy of the RFA may be obtained from Harry Haverkos, MD, or Harold Ginzburg, MD, JD, MPH, Westwood Bldg Rm 753, NIH, Bethesda, MD 20892, phone 301-496-0545.

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 Blair building room number shown, National Cancer Institute, NIH, Bethesda MD 20892. Proposals may be hand delivered to the Blair building, 8300 Colesville Rd., Silver Spring MD, but the U.S. Postal Service will not deliver there. RFP announcements from other agencies will include the complete mailing address at the end of each.

RFP NIH-NIAID-AIDSP-87-13

Title: Development of methods to detect HTLV-3/LAV and related retroviruses in experimental systems and clinical materials
Deadline: Dec. 2

The National Institute of Allergy & Infectious Diseases has a requirement for the development of simpler, faster and quantitative methods for the detection of HTLV-3/LAV and related retroviruses. The end products of this research should permit the ready detection and measurement of those viruses in clinical, animal and laboratory specimens. Studies may stress innovative approaches to the problem as well as advanced development of currently available methods and techniques. It is anticipated that approaches using recombinant DNA, microscopic, tissue culture, immunodetection and biochemical methods will be proposed but offerors are not constrained to use only those approaches.

It is expected that a cost reimbursement type contract will be awarded and that the project will take approximately three years to complete.

For copies of the RFP, send two self addressed mailing labels to Brenda Velez, Westwood Bldg Rm 707, NIH, Bethesda, MD 20892.

RFP NIH-NIAID-AIDSP-87-12

Title: Correlates or markers of immunity in AIDS
Deadline: Dec. 6

NIAID has a requirement to support research aimed at identifying and characterizing the correlates or markers of the immune status to infection with HTLV and subsequent development of AIDS. Applications are expected to develop research plans that would explore the relationship of humoral and/or cellular immune mechanisms to an immune state against HTLV-3/LAV. Such plans may incorporate research on human subjects, animal studies and in vitro experiments.

This project will take approximately five years to complete. It is expected that a cost reimbursement type contract will be used.

For a copy of the RFP, send two self addressed mailing labels to Mary Anne Glitz, Westwood Bldg Rm 707, NIH, Bethesda, MD 20892.

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

Oncology Nursing Symposium: Cancer Implications Throughout the Life Span--Oct. 1-3, Cleveland. Contact Center for CME, Cleveland Clinic Educational Foundation, 9500 Euclid Ave., Rm TT3-301, Cleveland 44106.

XIII International Pigment Cell Conference--Oct. 5-9, Holiday Inn Broadway, Tucson. Plenary lectures, poster presentations and workshops. International Pigment Cell Society and Arizona Cancer Center. Contact Mary Humphrey, phone 602-626-6044.

National Cancer Advisory Board Cancer Information Committee--Oct. 5, NIH Bldg 31 Rm 8, 2 p.m., open.

NCAB Organ Systems Committee--Oct. 5, NIH Bldg 31 Rm 7, 5 p.m., open.

National Cancer Advisory Board--Oct. 6-8, NIH Bldg 31 Rm 6, 8:30 a.m. Closed Oct. 7 for grant review.

NCAB Committee on Innovations In Surgical Oncology --Oct. 6, NIH Bldg 31 Rm 7, starting immediately after meeting of the full Board, open.

NCAB Committee on Planning & Budget--Oct. 6, NIH Bldg 31 Rm 11A10, 7:30 p.m., open.

Platelet Transfusion Therapy--Oct. 6-8, Warren Magnuson Clinical Center, NIH. NIH consensus development conference. Contact Sharon Feldman, Prospect Associates, Suite 500, 1801 Rockville Pike, Rockville, MD 20852, phone 301-468-6555.

Molecular Neurobiology of Drosophila--Oct. 6-8, Cold Spring Harber, address above.

NCAB Committee on Review of Contracts & Budget for the Office of the Director--Oct. 7, NIH Bldg 31 Rm 8, starting immediately after the full Board ends its grants review meeting. The committee meeting is open, the grants review meeting closed.

NCAB Committee on Cancer Control and the Year 2000 --Oct. 7, NIH Bldg 31 Rm 8, 7:30 p.m., open.

12th Annual Topics in Gastroenterology and Liver Disease--Oct. 9-11, Johns Hopkins Medical Institutions, Baltimore. Contact Jeanne Ryan, Office of Continue Education, Johns Hopkins Univ. School of Medicine, 720 Rutland Ave., Baltimore, MD 21205.

Oncology Nursing in Transition: Caring, Coping, Costs--Oct. 10-12, Waterville Valley, NH. Contact Lynn Westgate, ACS-NH Div., 686 Mast Rd, Manchester, NH 03102, phone 603-669-3270.

Mechanisms of Drug Resistance in Neoplastic Cells--Oct. 15-16, Washington DC. Ninth annual Bristol-Myers Symposium on Cancer Research. Contact Lillian Kamal, Administrator, Lombardi Cancer Research Center, 3800 Reservoir Rd NW, Washington DC 20007.

Div. of Cancer Treatment Board of Scientific Counselors--Oct. 16-17, NIH Bldg 31 Rm 6, 8:30 a.m. both days.

Challenge of Cancer to the Community--Oct. 17-18, Tampa. Contact Joseph Sinkovics MD, Medical Director, St. Joseph's Hospital Community Cancer Center, PO Box 4227, Tampa, FL 33677, phone 813-870-4242.

Symposium on Epstein-Barr Virus--Oct. 17-22, St. Petersburg, FL. Contact either Dr. M. Nonoyama, Showa Univ. Research Institute for Biomedicine, St. Petersburg 33702; or Dr. Dharam Ablashi, Bldg. 37 Rm

1E24, NCI, Bethesda, MD 20892.

Pediatric Oncology Symposium--Oct. 17, Univ. of Kansas Medical Center. Contact Carole Rosen, Office of Continuing Education, 39th & Rainbow Blvd., Kansas City, KS 66103, phone 913-588-4480.

Current Trends in Head and Neck Cancer Nursing--Oct. 22-23, Baltimore. Contact Pamela Macedonia, Office of Continuing Education, Johns Hopkins Medical Institutions, Turner 22, 720 Rutland Ave., Baltimore 21205, phone 301-955-6085.

Biometry & Epidemiology Contract Review Committee--Oct. 22, Bethesda Holliday Inn, open 9-9:30 a.m.

Symposium on Biological Response Modifiers in Cancer Therapy--Oct. 22, Univ. of Pittsburgh. For xxxx oncology researchers. Contact Carol Holbay, Events Office, M-250 Scaife Hall, Pittsburgh 15261, phone 412-648-9006.

New Age in Cancer Treatment--Oct. 23, Weston William Penn Hotel, Pittsburgh. Mary A. Davis Memorial Symposium. Designed to acquaint allied health professionals with the latest research in biological response modifiers for cancer therapy. Contact Carol Holbay, address above.

Div. of Cancer Etiology Board of Scientific Counselors--Oct. 23-24, NIH Bldg 31 Rm 10, open Oct. 23 1 p.m.-recess, Oct. 24 9 a.m.-adjournment.

Advances in Hematology--Oct. 24, Boston. Third William B. Castle Symposium. Contact Andrew Schafer, MD, 75 Francis St., Boston 02115, phone 617-732-5844.

Cancer Update: Talk with the Experts--Oct. 25, 39 Haines Hall, UCLA. Jonsson Comprehensive Cancer Center and UCLA Extension. Contact Continuing Education in Health Sciences, UCLA Extension, PO Box 24901, Los Angeles 90024, phone 213-825-7257.

10th Annual Cancer Symposium and 6th Annual Cancer Symposium for Nurses--Oct. 27-29, Sheraton Harbor Island Hotel East, San Diego. Scripps Memorial Hospital. Contact Nomi Feldman, Conference Coordinator, 3770 Tansy, San Diego 92121, phone 619-453-6222.

Cancer Clinical Investigation Review Committee--Oct. 27-28, Bethesda Marriott Hotel, open Oct. 27 8:30-9:15 a.m.

Human Papillomaviruses and Squamous Carcinoma--Oct. 27-29, Chicago. Contact Barbara Trejo, Rush-Presbyter-an-St. Luke's Medical Center, Office of Continuing Education, 600 S. Paulina St., Chicago 60612, phone 312-942-7095.

Innovative Cancer Chemotherapy for Tomorrow--Oct. 29-31, New York. Contact Director, Page & William Black Postgraduate School of Medicine, One Gustave L. Levy Place, New York 10029, phone 212-650-6772.

Short Course on Cancer Pain Management--Oct. 29, Roosevelt Hotel, New York Contact Denyse Adler, Director, Palliative Care Institute, Calvary Hospital. Phone 212-430-4664.

Oncology Today: Toward 2000 II--Oct. 30-31, Fox Chase Cancer Center, Philadelphia. Contact Peggy Conners, Conference Coordinator, 215-728-3110.

Cancer Research Manpower Review Committee--Oct. 30-31, Bethesda Holliday Inn, open Oct. 30 8:30-10 a.m.

Ninth Annual San Antonio Breast Cancer Symposium--Oct. 31-Nov. 1. Contact Terri Coltman, Cancer Therapoy & Research Center, 4450 Medical Dr., San Antonio 78229, phone 512-690-0655.

Cincinnati Cancer Conference V: Breast Cancer--Oct. 31-Nov. 1. Contact Thomas O'Connor, Continuing Medical Education, Bethesda Oak Hospital, 619 Oak St., Cincinnati 45206, phone 513-569-6339.

American Society for Therapeutic Radiology and Oncology--Nov. 2-7, Bonaventure Hotel, Los Angeles. 28th annual meeting. Keynote speakers include Andree Dutreix, Institut Gustave-Roussy, Villejuif, France, on treatment planning; NCI Director Vincent DeVita, on dose intensity and its relationship to treatment outcome; Martin Cline, UCLA Center for Health Sciences, on implications of oncogenes; and Frederick Eilber, UCLA School of Medicine, on latest perspectives of surgical oncology. Contact ASTRO, 1891 Preston White Dr., Reston, VA 22091, phone 703-648-8900.

Curative Treatment Strategies 1986--Nov. 6-8, Century Plaza Hotel, Los Angeles. Annual oncology review. Contact Lore Kahane, Rm 2049, Cedars Sinai Medical Center, PO Box 48750, Los Angeles 90048, phone 213-855-5547.

Care of the Elderly Person with Cancer--Nov. 8, Mt. Sinai Medical Center, New York. Contact Denyse Adler, Director Palliative Care Institute, 212-430-4664.

American Assn. for Cancer Education--Nov. 11-14, Montreal. Annual meeting. Contact Dr. Stephen Stowe,CRTC Bldg Rm A-1020, New Jersey Medical School, 100 Bergen St., Newark 07103.

Innovative Cancer Chemotherapy for Tomorrow--Nov. 12-14, Sheraton Center Hotel, New York. Contact Page and William Black Post Graduate School of Medicine, One Gustave Pl., New York 10029, phone 212-650-6737.

Cancer Prevention in Perspective--Nov. 12, Johns Hopkins Medical Institutions, Baltimore. Contact Program Coordinator, Office of Continuing Education, Johns Hopkins, Turner 22, 720 Rutland Ave., Baltimore 21205, phone 301-955-6046.

Current Approaches for the Diagnosis and Treatment of Gastrointestinal Cancers--Nov. 12-14, Hotel Intercontinental, Houston. 30th annual M.D. Anderson Clinical Conference. Contact Conference Services, Box 131, MDA Hospital & Tumor Institute, 6723 Bertner Ave., Houston 77030, phone 713-792-3030.

Div. of Cancer Biology & Diagnosis Board of Scientific Counselors--Nov. 13, NIH Bldg 31 Rm 4, open 8:30 a.m.-3 p.m.

Tumor Registry Training Program--Nov. 13, Cancer Research Institute, UCSF. 25th anniversary of the program. Contact General Tumor Registry, Cancer Research Institute, Univ. of California School of Medicine, San Francisco 94143, phone 415-476-2331.

Breast Cancer Conference--Nov. 19, Hackensack Medical Center Conference Center. Contact Hackensack Medical Center, Comprehensive Cancer Program, 30 Prospect Ave., Hackensack, NJ 07601, phone 201-441-2363.

Monoclonal Antibodies and Breast Cancer--Nov. 20-21, San Francisco. Contact Dr. Roberto Ceriani, John Muir Cancer and Aging Research Institute, 2055 N. Broadway, Walnut Creek, CA 94596, phone 415-943-1167.

FUTURE MEETINGS

Third National Leukemia Society of America Symposium--March 18-21, 1987, Town & Country Hotel, San Diego. Applications of basic science to clinical practice. Contact the Society, Medical Programs Dept., 733 Third Ave., New York 10017, phone 212-573-8484.

Surgical Management of Metastatic Disease--March 25-27, 1987, Memorial Sloan-Kettering Cancer Center, New York. Contact CME, C-180, MSKCC, 1275 York Ave., New York 10021, phone 212-794-6754.

Prediction of Tumor Treatment Response--April 21-24, Banff Springs Hotel, Banff, Canada. Contact Meg Keiser, American College of Radiology, 925 Chestnut St., Philadelphia 19107, phone 215-574-3153.

The Cancer Letter _Editor Jerry D. Boyd Associate Editor Patricia Williams

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