THE CANCER LETTER

Vol. 21 No. 48
Dec. 15, 1995

Price $255 Per Year US
$280 Per Year Elsewhere

P.O. Box 15189 Washington, D.C. 20003 Telephone 202-543-7665

Intramural PIs To Control Own Budgets, Have Greater Autonomy, Klausner Says

As a result of a reorganization, principal investigators in the NCI intramural research program may be given greater academic and administrative autonomy, Institute officials said.

Under a plan presented to the National Cancer Advisory Board by NCI Director Richard Klausner, all principal investigators would be able to control the budgets of their research projects.

Currently, in most NCI laboratories, the budgets of all research

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In Brief

Tomasi To Resign As Roswell Park President; Committee To Study NIH Grant Review Issues

THOMAS TOMASI, president and CEO of Roswell Park Cancer Institute since 1986, will resign at the end of 1996, the institute said. Tomasi, who is credited with revitalizing the institute and galvanizing support for a $241 million modernization project, said he plans to return to laboratory work. "The Institute has come to a new plateau," Tomasi said. "Roswell Park has regained its international leadership position in cancer treatment and research. I feel I can now renew my professional pursuits in the laboratory." . . . **NIH DIRECTOR** Harold Varmus plans to appoint a committee to study grant review issues. Membership will include both NIH and extramural representatives, Varmus said to the Advisory Committee to the Director, NIH, last week. . . . **BERNADETTE MARRIOTT** was appointed director of the NIH Office of Dietary Supplements Research. She was associate director, Food and Nutrition Board, Institute of Medicine. . . . **WILLIAM RUTTER,** chairman of the board of Chiron Corp., and **C. EVERETT KOOP,** former US Surgeon General, received Heinz Awards from the Heinz Family Foundation. Teresa Heinz created the awards of $250,000 each as a tribute to her late husband, US Sen. John Heinz, who died in a 1991 plane crash. . . . **RICHARD SCHULOF,** 48, oncology director of Health One, a group of four large Denver hospitals, died Nov. 22 in an automobile accident. According to news reports, Schulof drowned after his car went off Colorado Route 40 and slid into a creek. Shulof was a member of the National Biotherapy Study Group. . . . **AIDS CLINICAL** Trials Group was funded last month by the National Institute of Allergy and Infectious Diseases. The four-year awards will fund 30 clinical trials units, a statistical and data management center and a coordinating center.

Klausner Offers Intramural PIs Budget Info, Greater Autonomy

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projects—and therefore the direction of research—are controlled by lab chiefs.

"The fundamental principle that guides the intramural research program of the NCI is that the scientific organization is based upon independent principal investigators, and not on lab chiefs," Klausner said to the board Nov. 28. "It may not sound like much, but, in fact, this is a real change."

In exchange for greater autonomy, principal investigators will be subject to a more rigorous review process, Klausner said. Under the reform plans, NCI laboratories will become similar to university laboratories, in which principal investigators secure grant support for their projects and justify their work to peers, NCI officials said.

Calabresi: "Thrilled" To See Change

The change to a university-style system was recommended in last summer's report of the NCAB committee that reviewed the NCI intramural program, Klausner said.

"This Institute needs to improve its quality, its use of resources and its level of contribution to science," Klausner said. "There is some anxiety on campus, but I think there ought to be. Things are going to be more rigorous."

Paul Calabresi, a member of the President's Cancer Panel who co-chaired the NCAB committee with Michael Bishop of the Univ. of California, San Francisco, said the changes Klausner proposed were consistent with the report's recommendations.

"It is thrilling and rewarding that so many of our recommendations are being implemented," Calabresi said.

A Budget For Every PI

Under the new structure, which is now being implemented throughout the Institute, laboratory chiefs would no longer supervise the scientific work of the PIs in their labs, Klausner said.

Every PI would submit an annual budget request to the laboratory chief, who would forward the requests to the division director. In addition, each laboratory would have an administrative budget and resources for supporting core functions that benefit all of the PIs it employs.

"The lab budget will be made up by the sum of the negotiated budgets of each PI and any additional budget," Klausner said. "That's not the way it is now."

In its report, the Bishop-Calabresi committee criticized what it described as a hierarchical structure of the intramural program. The scientific and administrative hierarchy discouraged innovation on the part of young investigators and resulted in a lack of financial accountability, the report said.

The Bishop-Calabresi committee found that 55 investigators had budgets of more than $1 million. Several laboratory chiefs appeared to have used their authority to amass disproportionate funding for their own projects at the expense of supporting the work of other PIs in their labs, the report said (**The Cancer Letter**, July 14, 1995).

In some cases, lab chiefs simply did not inform PIs about the sizes of their budgets, Klausner said. The confusion was compounded by the lack of uniform accounting methods at the Institute. Thus, the budgeting methods at one NCI division differed from the budgeting methods of another.

"In some of the divisions, the laboratories did not know what their resources were," Klausner said. "They never had a budget, or if they did, they didn't know what it was.

"That is over," he said.

Intramural Manual To Be Published

In the latest phase of reform, the Institute would issue cost management guidelines that are comparable to university practices, Klausner said.

A PI's budget would no longer remain an entitlement of the lab. Thus, a departure of a PI would lead to withdrawal of his budget. Similarly, the

THE CANCER LETTER

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Subscription $255 per year US, $280 elsewhere. ISSN 0096-3917. Published 48 times a year by The Cancer Letter Inc., also publisher of The Clinical Cancer Letter.

departure of a laboratory chief would trigger a review of the lab's future.

NCI plans to publish a manual that would define the roles of a all intramural positions, including those of the lab chief, PI and staff scientist, Klausner said. The manual would also outline the procedures for establishing and disbanding laboratories.

According to a draft of the manual, NCI would define a laboratory or a branch as "an organizational entity consisting of one or more PIs that is intended to provide an enhanced intellectual and structural framework for its members," Klausner said to the NCAB. "The lab or branch chief is responsible for ensuring the effective functioning of the lab or branch by creating an interactive scientific environment that supports and enhances the independent research programs of the PIs."

In an earlier reorganization move, all NCI intramural laboratories and branches were placed into three divisions, the Division of Basic Sciences, the Division of Clinical Sciences, and the Division of Cancer Epidemiology and Genetics (**The Cancer Letter**, Oct. 13).

More Rigorous Review

As investigators gain autonomy, peer review of their work would become more rigorous, said Edward Harlow, chairman of the basic science subcommittee of the NCI Board of Scientific Counselors.

In the past, peer review by advisors from outside NCI was ambiguous, Harlow said to NCAB. Reviewers used vague terminology, such as "below average enthusiasm," "average enthusiasm," and "high enthusiasm" to describe their reaction to a laboratory's work.

"It was confusing and frustrating to an outsider," *Harlow said.*

Though the plan for peer review has not been completed, Harlow described a "working model" of the process that he said would include both retrospective review of a PI's accomplishments and prospective review of a PI's plans.

The retrospective review would be contained in a written report by a review committee, while the prospective review will be performed by a team of site visitors. PIs and lab chiefs will be reviewed every four years.

The reviewers would be asked to provide recommendations about a PI's use of resources. The terminology used by the reviewers would be more specific as well. Instead of describing the levels of their "enthusiasm," reviewers would recommend whether to "expand," "continue," "re-evaluate" or "close" a project.

The review process will allow for rebuttal by a PI, Harlow said.

BSC's recommendations would remain advisory. However, NCI would be obligated to inform the board of actions taken following a review.

Intramural Divisions Describe Programs

At the NCAB meeting, the leaders of the new intramural divisions described changes in their programs.

Following are some highlights:

●The Division of Basic Sciences has formed a steering committee that would have oversight for hiring, tenure track appointments, allocation of division resources, and review of laboratory management practices.

The steering committee consists of the division director and six laboratory chiefs. Currently, there is no division director. George Vande Woude, principal investigator of the basic research program at the NCI Frederick Cancer Research and Development Center, oversees the division temporarily as Klausner's special advisor for basic sciences.

Members of the committee are Vande Woude, NIH Director Harold Varmus, who is a laboratory chief in the division, Douglas Lowy, Alfred Singer, Stuart Yuspa, Jonathan Ashwell, Jacalyn Pierce, and Larry Willhite, the program management officer.

The division houses 33 laboratories and 1,462 research staff, including 201 PIs. There are only 34 young scientists on the tenure track, a number that Vande Woude said is low.

"Now that the program is united, we can begin to look at ways to improve it," he said. "There are some obvious deficiencies in what you would like to see in the intramural program. In the next several years we

The Cancer Letter Takes Annual Publication Break

The Cancer Letter will take its annual winter publication break over the next two weeks.

This issue of **The Cancer Letter**, Vol. 21 No. 48, is the final issue for 1995.

The next issue, Vol. 22 No. 1, will be dated Jan. 5, 1996.

will try to recruit in those areas, especially in developmental biology."

● The Division of Clinical Sciences is reviewing all of the intramural clinical programs now consolidated in the division, as well as nearly 300 active protocols.

PIs have been encouraged to close protocols, particularly phase III protocols, that could be done in universities or cancer centers, said Philip Pizzo, acting director of the division.

The mission of the intramural clinical program should be to "conduct pioneering scientific and clinical research that improves our understanding of cancer and its diagnosis, treatment and prevention," Pizzo said.

Pizzo established two new positions: a deputy director for clinical affairs and a deputy director for clinical research.

Gregory Curt was named acting deputy director for clinical affairs. Curt also heads a task force studying options for consolidating responsibilities for patient care. Currently, each of the clinical branches controls the clinical service for patients enrolled on their protocols.

The division, with an estimated FY95 budget of $84 million, houses 880 staff and 127 square feet of laboratory space.

● The Division of Cancer Epidemiology and Genetics has proposed a reorganization that would establish four main programs: Human Genetics; Epidemiology and Biostatistics; Extramural Epidemiology and Genetics; and an Office of Program Planning and Coordination.

Currently, the division consists of six branches: Genetic Epidemiology, Viral Epidemiology, Environmental Epidemiology, Biostatistics, Radiation Epidemiology and Extramural Programs.

The mission of the division is to "conduct epidemiologic, genetics, and biostatistical research with a population-based and interdisciplinary orientation aimed at identifying environmental and host determinants of cancer, leading to prevention strategies," Joseph Fraumeni, division director, said. The division also will respond to emerging public health concerns, and monitor patterns of cancer incidence and mortality.

There are 67 intramural staff and five extramural program staff in the division, which had an estimated FY95 budget of $15.8 million as well as $26 million in contracts.

Gene Therapy "Oversold," Panel Tells NIH; Advises Basic Research Emphasis

Despite the lack of evidence of clinical efficacy, gene therapy has been "oversold" as an imminently available treatment for human disease, a panel said to NIH last week.

Gene therapy researchers and their supporters have hyped the results of laboratory and clinical studies to the extent that the public thinks the research is much farther along than it is in reality, the panel said in a report to NIH Director Harold Varmus.

"There has been an overselling of gene therapy in the field which causes a gap between public perception and reality," Stuart Orkin, professor of hematology-oncology at Harvard Medical School, said to the Advisory Committee to the NIH Director. "If patients believe gene therapy is going to be on board soon, they think they can relax on their current therapy and that can be destructive."

Orkin and Arno Motulsky, a genetics professor at Univ. of Washington, headed the panel Varmus appointed last spring to assess the NIH investment in gene therapy research. They presented the panel's report Dec. 7 to the Advisory Committee.

More Restraint Urged

The panel cautioned scientists, research institutions, industry and the press to be "more restrained" in their public pronouncements about findings and prospects of gene therapy.

The panel also criticized the gene therapy field for proceeding to clinical studies too early. Soon after discovery of a "disease gene," researchers are trying long-shot therapies in patients before using the discovery to improve knowledge of disease and find ways to improve conventional treatments, the report said.

"Strict adherence to the highest standards of excellence in clinical research must be demanded," Orkin said. "Inherent in that statement is the suggestion that we don't think that has been the case so far."

Gene therapy has potential for treating human disease, but more basic research needs to be done to overcome significant problems, a panel said.

The panel said NIH spending on gene therapy research—about $200 million annually—is appropriate. Innovative basic research should be

encouraged through NIH funding of workshops, resulting in program announcements inviting investigator-initiated short-term pilot grants, the panel said.

Panel's Findings, Recommendations

A summary of the panel's findings and recommendations follows:

1. Somatic gene therapy is a logical and natural progression in the application of fundamental biomedical science to medicine and offers extraordinary potential, in the long-term, for the management and correction of human disease, including inherited and acquired disorders, cancer, and AIDS. The concept that gene transfer might be used to treat disease is founded on the remarkable advances of the past two decades in recombinant DNA technology. The types of diseases under consideration for gene therapy are diverse; hence, many different treatment strategies are being investigated, each with its own set of scientific and clinical challenges.

2. While the expectations and the promise of gene therapy are great, clinical efficacy has not been definitively demonstrated at this time in any gene therapy protocol, despite anecdotal claims of successful therapy and the initiation of more than 100 Recombinant DNA Advisory Committee (RAC)-approved protocols.

3. Significant problems remain in all basic aspects of gene therapy. Major difficulties at the basic level include shortcomings in all current gene transfer vectors and an inadequate understanding of the biological interaction of these vectors with the host.

4. In the enthusiasm to proceed to clinical trials, basic studies of disease pathophysiology, which are likely to be critical to the eventual success of gene therapy, have not been given adequate attention. Such studies can lead to better definition of the important target cells and to more effective design of the therapeutic approach. They often can be carried out in appropriate animal models. Pathophysiologic studies may also suggest alternative treatment strategies.

5. There is a clear and legitimate need for clinical studies to evaluate various aspects of gene therapy approaches. Although animal investigations are often valuable, it is not always possible to extrapolate directly from animal experiments to human studies. Indeed, in some cases, such as cystic fibrosis, cancer, and AIDS, animal models do not satisfactorily mimic the major manifestations of the corresponding human disease. Clinical studies represent not only practical implementation of basic discoveries, but also critical experiments which refine and define new questions to be addressed by non-clinical investigation.

6. Interpretation of the results of many gene therapy protocols has been hindered by a very low frequency of gene transfer, reliance on qualitative rather than quantitative assessments of gene transfer and expression, lack of suitable controls, and lack of rigorously defined biochemical or disease endpoints. The impression of the panel is that only a minority of clinical studies, illustrated by some gene marking experiments, have been designed to yield useful basic information.

7. Overselling of the results of laboratory and clinical studies by investigators and their sponsors—be they academic, federal, or industrial—has led to the mistaken and widespread perception that gene therapy is further developed and more successful than it actually is. Such inaccurate portrayals threaten confidence in the integrity of the field and may ultimately hinder progress toward successful application of gene therapy to human disease.

The panel recommended the following:

1. In order to confront the major outstanding obstacles to successful somatic gene therapy, greater focus on basic aspects of gene transfer, and gene expression within the context of gene transfer approaches, is required. Such efforts need to be applied to improving vectors for gene delivery, enhancing and maintaining high level expression of genes transferred to somatic cells, achieving tissue-specific and regulated expression of transferred genes, and directing gene transfer to specific cell types. To stimulate innovative research, the panel recommends the use of interdisciplinary workshops, specific program announcements in these areas, and the use of short-term, pilot grants for testing new ideas and for encouraging investigators from other areas to enter the field of gene therapy.

2. To address important biological questions and provide a basis for the discovery of alternative treatment modalities, the panel recommends increased emphasis on research dealing with the mechanisms of disease pathogenesis, further development of animal models of disease, enhanced use of preclinical gene therapy approaches in these models, and greater

study of stem cell biology in diverse organ systems.

3. Strict adherence to high standards for excellence in clinical protocols must be demanded of investigators. Gene therapy protocols need to meet the same high standards required for all forms of translational (or clinical) research, whatever the enthusiasm for this (or any other) treatment approach.

4. To enhance the overall level of research in this area, the panel recommends that NIH support broad interdisciplinary postdoctoral training of M.D. and Ph.D. investigators at the interface of clinical and basic science. Mechanisms for physician training in this area might include use of career development awards based on a program announcement in gene therapy.

5. Investigators in the field and their supporters need to be more restrained in their public discussion of findings, publications, and immediate prospects for the successful implementation of gene therapy approaches. The panel recommends a concerted effort on the part of scientists, clinicians, science writers, research advocates, research institutions, industry, and the press to inform the public about not only the extraordinary promise of gene therapy, but also its current limitations.

6. NIH has already provided an appropriate initial investment in gene therapy. Future gene therapy research should compete with other forms of biomedical research for funding under stringent peer review. Only with fair, yet critical, peer review will high standards be met and maintained. The panel specifically does not recommend special gene therapy study sections, expansion of existing center programs in gene therapy, or expansion of the recently funded core vector production program. To ensure that the level of support remains appropriate, the NIH investment in this field should be reexamined periodically.

7. To enhance the contribution of industry to the field, the panel recommends that NIH encourage collaborative arrangements between academic institutions and industry that complement NIH-supported research, and also implement mechanisms that facilitate the distribution and testing of vectors and adjunct materials for use in clinical studies.

8. In an effort to improve gene therapy research and reduce duplication of effort, the panel urges better coordination and scientific review of such research throughout the NIH Intramural Program. In addition, NIH institute directors should resist pressures to include gene therapy research in their portfolios (either intramural or extramural) to "round out" their programs or compete with other institutes. Instead, they should include such research only when there are compelling scientific reasons to go forward. Institute directors should take the lead, where it seems appropriate, to focus efforts on improvement of diagnosis and understanding of disease pathogenesis and await further developments in vector technology before expanding clinical gene therapy programs.

Klausner : "Scientific Literacy For All"

National Standards To Improve Science Education Issued

To improve science education in grades K-12, educators should replace teaching methods that rely on memorization with stimulating classroom experiences that mirror the excitement of the scientific process, a committee chaired by NCI Director Richard Klausner said last week.

The committee of teachers, university and college faculty, scientists, and state and local school administrators, coordinated by the National Research Council, released the first comprehensive national standards for K-12 science education on Dec. 6.

"Outstanding science is taking place in many classrooms, but not in enough of them," Klausner, chairman of the science education standards project, said. "The National Science Education Standards are designed to stimulate the sweeping improvements necessary to achieve scientific literacy for all students."

The standards are voluntary guidelines to strengthen the content of science education, as well as teaching methods, teacher education, student assessments, and schoolwide science education programs. "The standards apply to all students, regardless of age, gender, cultural or ethnic background, disabilities, aspirations or interest, and motivation in science," the committee said.

"Many of the issues people face every day demand an understanding of science and scientific processes," Bruce Alberts, president of the National Academy of Sciences and chairman of the National Research Council, said. "An understanding of science empowers people to make wise decisions. Just as important, the nature of the workplace is changing in such a way that today's jobs demand more problem-solving skills."

Several science teaching and scientific organizations asked the National Research Council in 1991 to coordinate the development of national standards for improving science education.

About 40,000 copies of the draft standards were distributed to individuals and groups over the past year for comment.

Following the publication of the standards, the National Research Council has planned a year-long series of discussions among policy leaders, teachers, scientists, students, and parents about the steps necessary to ensure that the standards are used.

Standards Offer Specific Guidelines

The standards provide specific guidelines for:

Science content: what students should understand and be able to do from kindergarten through high school. Students by fourth grade should have a basic understanding of the properties of objects and materials, life cycles of organisms, objects in the sky, and the use of science and technology in solving simple problems. By eighth grade, students should demonstrate the abilities of scientific inquiry, and understand motions and forces, reproduction and heredity, the Earth's history, and the history of science. By 12th grade, their understanding should include chemical reactions, natural resources, and the nature of scientific knowledge.

Science teaching: what science teachers at all grade levels should know and be able to do in their classrooms. The standards cover the planning of inquiry-based science programs as well as actions for guiding student learning. As one illustration of effective science teaching methods, the standards present a third-grade teacher's creative strategy for teaching about sound. Once her students are versed in the basics, she asks them to use their understanding of sound to make musical instruments. The students work in teams, assisted at key points by sixth graders who encourage their efforts. The students then "perform" with their instruments and discuss the key principles that they demonstrate.

Professional development: the way that teachers acquire the knowledge and skills necessary to nurture science literacy among students. The standards address the initial education of teachers and their need for continuing professional development.

Assessment: the process teachers and other groups use to gauge how well students are learning. The standards can be used to judge both the quality and effectiveness of assessment practices and the opportunities students have had to learn science.

Science education programs: the components necessary for putting together high-quality, schoolwide science education programs. The standards address such issues as the consistency of the science program across grade levels and the coordination of science with mathematics education.

Science education system: the broader system in which science education programs operate—including relevant community, state, and national activities. The standards establish criteria for judging the performance of the overall science education system, and stress the need to coordinate the many policies that affect science education.

The project was funded by the National Science Foundation, US Dept. of Education, National Aeronautics and Space Administration, and NIH.

The report, National Science Education Standards, is available from the National Academy Press, tel: 202/334-3313 or 1-800-624-6242. The cost of the report is $19.95 plus shipping charges of $4 for the first copy and $.50 for each additional copy. The report is also available on the World Wide Web at http://www.nas.edu; via Gopher at gopher.nas.edu; and via FTP at ftp.nas.edu/pub/

Radiation Oncology Crowded, ACR Warns Young Physicians

The American College of Radiology issued a resolution warning young physicians seeking careers in radiation oncology that employment opportunities may become severely limited in the future.

Medicare subsidy of specialty training has encouraged the training of unnecessary radiation oncologists, while managed care and changes in reimbursement have led to greater efficiency and increasing physician productivity, the College said.

The College estimated that between 750 and 1,000 radiation oncologists will be either underemployed or unemployed within the next five to eight years. About 800 new radiation oncologists are expected to enter the job market in the next five years, and fewer than 200 existing radiation oncologists will leave the workforce in the same period, ACR said.

The resolution, enacted by the ACR Board of Chancellors last month, criticized Medicare for encouraging the training of unnecessary radiation oncologists.

MIT Radiation Poisoning Was Deliberate, NRC Finds

Federal investigators said a researcher at the Massachusetts Institute of Technology was deliberately poisoned with phosphorus-32 last August.

In a report released last week, US Nuclear Regulatory Commission investigators said the perpetrator in the MIT case apparently was familiar with handling radioactive materials.

The authorities said they had no suspect in the poisoning of postdoctoral researcher Yuqing Li, who ingested 579 microcuries of P-32 Aug. 19.

The case appears to be similar to other unsolved cases of malicious radiation poisoning, including a recent case at NIH, NRC officials said.

An investigation is continuing, officials said.

Cancer Meetings Listed For January, February, March

January

The Cell Cycle—Jan. 11-17, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

Blood Stem Cell and Bone Marrow Transplants—Jan. 15-21, Keystone, CO. Contact Keystone Symposia, tel: 303/262-1230.

Molecular Biology of HIV—Jan. 17-23, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

Cancer and the Cell Cycle—Jan. 17-20, Lausanne, Switzerland. Contact American Association for Cancer Research, tel: 215/440-9300, fax: 215/440-9313.

Tissue Engineering—Jan. 23-29, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

Recruitment and Retetion of Minorities in Clinical Research--Jan. 26-27, Omni Shoreham Hotel, Washington, DC. Contact NCI Div. of Extramural Activities, tel: 301/496-5147.

Breast and Prostate Cancer: Basic Mechanisms—Jan. 29-Feb. 4, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

February

Gene Therapy for Hematopoietic Stem Cells in Genetic Disease and Cancer—Feb. 4-10, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

International Congress on Anti-Cancer Treatment—Feb. 6-9, Paris, France. Contact Prof. David Khayat, SOMPS, Hopital de la Pitie-Salpetriere, 47 Bd de l'Hopital, 75651 Paris CEDEX 13 France.

Genitourinary Conference—Feb. 8-10, Houston, TX. Contact M.D. Anderson Cancer Center, Pam Hamre, Conference Services, tel: 713/792-2222.

Radiation Therapy Oncology Group Semi-Annual Meeting—Feb. 8-11, New Orleans, LA. Contact Nancy Smith, RTOG, tel: 215/574-3205, fax: 215/928-0153, e-mail: nsmith@acr.org.

American Association for the Advancement of Science, Annual Meeting and Science Innovation Exposition—Feb. 8-13, Baltimore, MD. Contact AAAS, tel: 202/326-6440.

Molecular Regulation of Platelet Production—Feb. 16-22, Taos, NM. Contact Keystone Symposia, tel: 303/262-1230.

Clinical Hematology and Oncology—Feb. 19-22, La Jolla, CA. Contact Scripps Clinic, tel: 619/554-6310.

National Cancer Advisory Board—Feb. 26-28, NIH Building 31 Conference Rm 10, Bethesda, MD.

March

Proteases and Protease Inhibitors—March 1-5, Panama City, FL. Contact American Association for Cancer Research, tel: 215/440-9300.

Recent Advances In Paget's Disease of Bone and Related Bone Diseases—March 9, Natcher Building, Bethesda, MD. Contact The Paget Foundation, tel: 212/229-1582, fax: 212/229-1502.

NCI-EORTC Symposium on New Drugs in Cancer Therapy—March 12-15, Amsterdam, The Netherlands. Contact (in the US) Technical Resources Inc., tel: 800/883-MEET, fax: 301/770-6343.

International Conference on the Adjuvant Therapy of Cancer—March 13-16, Scottsdale, AZ. Contact Arizona Cancer Center, tel: 520/626-2276, fax: 520/626-2284.

Association of Community Cancer Centers Annual Meeting—March 13-16, Washington, DC. Contact David Walls, tel: 301/984-9496.

American Society of Preventive Oncology—March 20-23, Bethesda, MD. Contact Dr. Richard Love, tel: 608/263-7066 or Judy Bowser, tel: 303/938-1045.

Society of Surgical Oncology Annual Meeting—March 21-24, Atlanta, GA. Contact SSO, tel: 708/427-1400, fax: 708/427-1294.

Investigational Approaches and Opportunities for Preventing Prostate Cancer—March 31-April 2, Annapolis, MD. Contact Judith Karp, NCI, tel: 301/496-3505, or Dr. Andrew Chiarodo, tel: 301/496-8528, or Dr. Otis Brawley, tel: 301/496-8541.