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Senate, House Budget Plans Likely To Result In Modest Funding Increases For NIH, NCI

The Senate Budget Committee last week approved a budget resolution that would provide $65.7 billion in budget authority for all health-related spending in FY 1991, $1.55 billion below the figure approved recently by the House Budget Committee, but still $6 billion above the

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In Brief

Broder To Discuss Cancer Centers Plan Between Meetings; Symposium Dedicated To William Scott

NCI DIRECTOR Samuel Broder will discuss the five year plan for cancer centers May 23 in Washington, between the ASCO and AACR meetings. The discussion will be at the Ramada Renaissance Hotel, Room 8 and 9, from 7 to 9 p.m. Center directors and other representatives of cancer centers, and anyone else interested in the subject, are invited. . . . **WILLIAM SCOTT**, Johns Hopkins Univ., will be honored for his contributions in a 44 year career in urology at the Second International Symposium on Advances in Urologic Cancer. The symposium, to be held in Paris June 27-29, will be dedicated to Scott. . . . **TUTORIAL** on CPT codes for chemotherapy, J codes for therapy procedures, and completing form 1500 for maximum reimbursement will be available on an interactive computer at the Adria Laboratories booth at ASCO May 20-22. . . . **MEMORIAL TRIBUTE** to honor Barney Lepovetsky, the late chief of NCI's Office of Technology Development, will be held on June 20 at 9 a.m. in NIH Bldg. 31, Rm 10. Several speakers will discuss Lepovetsky's 20-year career at NIH, 15 of which were spent at NCI. . . . **ANIMAL RESEARCH** office has been established in the NIH Office of the Deputy Director to provide information to researchers, legislators, educators, professional societies and the public about the benefits of animal research. The director of the office is Louis Sibal, recently appointed senior scientific advisor to the NIH deputy director. The office was formed on the recommendation of a working group on animal welfare composed of 20 representatives of PHS agencies. . . . **PAUL PARKMAN**, director of the FDA's Center for Biologics Evaluation & Research, will retire July 14. He joined the Public Health Service in 1963, and served as deputy director of FDA's Dept. of Biologics from 1973 to 1982. . . . **KATHERINE BICK**, director of the NIH Office of Extramural Research and principal author of proposed conflict of interest guidelines that were rejected last year, has left NIH. She has joined the Italian neuroscience research group, Centro Multicentrico Italiano Sulla Demenza, as its Washington representative.

NCI Could Get Modest Increase Under House Budget Plan

(Continued from page 1)

fiscal year 1990 level. The Senate committee did not specify an amount for NIH, leaving that up to the appropriations committee. However, NIH will be one of the agencies recommended for an increase in the budget committee report, a committee staff member told **The Cancer Letter.**

The House Budget Committee authorized $67.25 billion in budget authority for health spending, an increase of $7.612 billion above the FY 1990 level.

The House also recommended that NIH receive $8.65 billion in FY 91, excluding AIDS research funding. That amount is $750 million above the President's FY 1991 budget request, and more than $1 billion more than the FY 1990 budget.

The budget resolutions are not binding on the appropriations committees, but the committees cannot exceed the overall limits in each broad spending category, such as health.

Budget outlays approved for health were $65.85 billion in the House and $64.5 billion in the Senate.

Until the appropriations committees draw up their budget plans, it is not clear how the House increase, and any possible Senate increase, might trickle down to NCI.

Administration officials say the House and Senate budget plans, as well as the President's original proposal, are based on outdated economic assumptions.

Worsening economic conditions mean that more drastic measures will be necessary to meet the deficit targets mandated by the Gramm-Rudman-Hollings deficit reduction act. Mandatory budget cuts would be put into effect unless deficit targets are reached.

However, in discussions with NCI and congressional sources this week, it appears that the Cancer Institute could receive a modest proportion of the House committee's recommended increase for NIH.

The committee indicated that the $750 million it tacked on to the President's budget request should be directed to "increase funding for new and competing grants in biomedical research," and said it was "especially concerned" that cancer research "is not adequately funded."

The committee also said it was concerned about funding for the National Institute of Child Health & Human Development.

Any additional funding, the committee said, could be directed for research in mental illness, Alzheimer's disease, multiple sclerosis and cystic fibrosis.

Given those recommendations, one source told **The Cancer Letter** that under a conservative scenario, NCI might end up with about a $200 million increase above the President's request, or more than $1.8 billion.

That amount is nowhere near the more than $700 million needed to make up the difference between the President's budget and NCI's bypass request. However, the additional funding could go a long way toward funding new and competing grants, cancer center core grants, and other critical areas.

The bypass budget calls for a $36 million addition to the Cancer Centers Program. Sydney Salmon, president of the Assn. of American Cancer Institutes, recently told a House subcommittee that even half that amount "would keep the program alive, albeit not completely healthy." *(See story below).*

Cost-Benefit Comparisons Provide Lobbying Strategy For Advocates

Cancer program advocates are increasingly turning to cost-benefit analysis to demonstrate that expenditures for research have a positive financial impact on society when the results are translated into cancer treatment and prevention.

Such an approach appears to play favorably on Capitol Hill, where the ultimate funding decisions for cancer and biomedical research are made.

At a recent hearing on the NCI budget before the House Labor, HHS, Education Appropriations Subcommittee, several cancer researchers struck that theme in their testimony and went on to make a strong case for full funding of NCI's bypass budget. The bypass budget recommends that NCI receive a total of $2.4 billion, about $716 million above the President's FY 1991 budget request.

John Ultmann, director of the Univ. of Chicago Cancer Research Center and past chairman of the

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National Coalition for Cancer Research, gave the subcommittee one example of the actual return on the federal government's investment in cancer research; in this case, research on testicular cancer.

"Research on the cost-benefit analysis of testicular cancer has demonstrated that the annual savings realized from this improved survival rate is $166 million," Ultmann said. "The total federal investment in research on testicular cancer for a 17 year period--$55.8 million--was recovered in less than one year by improving the survival rate from this disease. In addition, the annual savings realized by the improved survival rate far exceeds the estimated cost to deliver therapy, which is approximately $16 million."

Ultmann stressed the success of the National Cancer Program in generating improvement in survival rates, innovative treatment, and prevention.

"The current five year survival rate of over 50 percent shows a steady improvement over the past decades. In the 1930s, when cancer research began, the five year survival rate was only 20 percent. In the 1960s, it had increased to 33 percent," he said.

"The treatment network established by NCI through its Cancer Centers Program and Cooperative Clinical Trials Network has provided a vehicle for remarkable innovations in therapy."

Ultmann noted that surgery is more precise and less mutilating, and advances in chemotherapy combination regimes have improved mortality rates for some cancers, for example, testicular cancer. From 1975 to 1985, mortality from testicular cancer decreased by 57 percent.

"The National Cancer Program is successful and holds great promise," Ultmann said. "Yet, it is functioning under great duress." He cited the following problems:

--The Administration's recommendation falls $716 million short of the bypass budget, which is "a realistic representation of the research opportunities which presently exist in cancer research."

--NCI will lose 10 noncompeting grants. NCI will fund 27 percent of approved grants, but downward negotiations of 20 percent and 4 percent for competing and noncompeting grants will be necessary.

--The Administration's budget would level fund cancer centers, prevention & control and contracts.

"In constant dollars, the funding situation for NCI is dramatic and adverse. The total increase of the NCI budget over the last decade in constant dollars is only $73 million. When AIDS research is subtracted, the increase for cancer research initiatives is only $23 million.

"I must ask myself and you, if the second leading cause of death in this country, and a disease which annually takes more lives than did all of our wars combined, merits only a $23 million increase in constant dollars over the past decade?"

Ultmann said the NCCR recommends full funding of the bypass budget, "which will enable funding 50 percent of approved grants, full funding to existing grants, full funding of existing cancer centers and adding five new centers, expanding the number of clinical trials, expanding prevention and control research with regard to smoking and dietary intervention, increase emphasis on research and management of cancer in minority and over 65 populations."

'Positive Impact' On Health

Karen Antman, associate professor at Dana-Farber Cancer Institute and chairman of the American Society of Clinical Oncology's government relations committee, told the subcommittee that research budgets should not be targets of cost-reduction.

"We believe the funds that have been expended for cancer research have had a major positive impact on the health of the American people and that the current exciting work in research laboratories is already being translated into increased benefits for cancer patients," Antman said.

"ASCO members are aware of the constraints of the federal budget and are particularly concerned with the spiraling costs of medical care. In an effort to control the costs of patient care, research has become a vulnerable, but we feel inappropriate, target for cost cutting. Half way technology is expensive; curative treatment is generally cost effective."

Antman noted that downward negotiations on grant awards are harmful. "Any significant cut in an ongoing, already approved and funded program throws continued research into chaos.

"A second, particularly deep concern to the physicians in ASCO is that there will be only a 2.5 percent increase for clinical research. Large randomized clinical trials such as the ones that have proven the efficacy of chemotherapy in colon and breast cancer, and of the growth factors in decreasing toxicity are expensive; however, they are the most reliable. A 2.5 percent increase means that fewer trials will be completed this year and fewer answers to important questions will be obtained."

In recommending full funding of the bypass budget, Antman said that ASCO is particularly concerned about adequate funding levels for clinical research and training of future scientists.

Antman made another recommendation: "When the National Cancer Act comes up for renewal later this

year, we urge that it be kept intact; that all of the authorities it now contains not be changed, and that the term of reauthorization be for at least three, and preferably five years."

Sydney Salmon, director of the Univ. of Arizona Cancer Center and president of the Assn. of American Cancer Institutes, told the subcommittee about research advances at cancer centers, including identification of tumor suppressor genes in cancer cells, the discovery and use of chemosensitizers that can reverse resistance to anticancer drugs, and research on bone marrow growth factors.

Administration 'Unable To Respond'

"A very large proportion of all peer-reviewed cancer research now occurs at NCI designated centers nationwide," Salmon said. "Therefore, the issue of core support for these centers is critically important to the entire National Cancer Program."

Salmon noted that while NCI Director Samuel Broder and his staff "have made a very strong good faith effort" to implement the recommendations contained in the report of the Institute of Medicine, "A Stronger Cancer Centers Program," "the bad news is that despite the fact that the director and staff appeared to take the report seriously, the Administration has not been able to respond to budgetary implications.

"During the past year, very deep cuts were made in centers funding. For FY 91 the Administration's budget totally fails to respond to the budgetary implications in the IOM report that was developed last year on authorization of the Senate. The report indicated that the inadequacy of the centers' budget was resulting in the loss of critically needed resources in our nation's fight against cancer, and indicated that the current budgetary trend would result in the loss of at least 10 additional regional cancer centers from the NCI program."

The Administration's increase in centers budget of $159,000 "represents only a one-fifth of 1 percent increase in the budget and in fact represents a cut when corrected for inflation," Salmon said.

"The Administration's proposed budget for our nation's cancer centers, if enacted, will result in either a defunding of 10 additional centers if surviving centers are to receive adequate budgets to operate, or would require massive cuts in the budgets of all centers. If the latter course is followed by NCI, then the centers will suffer an average 30 percent cut in their budgets."

AACI supports the bypass budget, which includes a $36 million addition to the Cancer Centers Program. However, Salmon said, the association "would emphasize that even half that amount would keep the program alive, albeit not completely healthy. On the other hand, the Administration's budget puts the centers program in jeopardy of total collapse.... We also recommend strong support for the other programs of NCI, including clinical trials so vital to advances in patient care, training and education, research and construction grants."

'Small Investment Promises Giant Returns'

Cyril Schulman, member of the ACS National Public Issues Committee, and past president of the District of Columbia Division, touched on the cost-benefit theme in his support of the bypass budget before the subcommittee.

"We believe (the bypass budget) is a small investment promising giant returns in the cancer battle which is costing the federal treasury more than $70 billion each year in lost wages, increasing cost of treatment, lost tax revenue, and human suffering," he said.

"Research, both basic and clinical, remains the key element in progress against cancer. We believe that the most compelling argument for higher funding is the urgent need to increase the percentage of approved research grants which are actually funded.

"A tremendous number of good, important ideas are not being followed up as a result of the current low level of research funding."

Schulman contended that opportunities for advances in cancer research are greater now than ever before. "The battle against cancer has reached a crucial stage. While appropriations have been increasing in recent years, they have not been able to keep up with the potential momentum in cancer research progress. ACS believes that FY 91 will be the year of dramatic, significant advances against cancer."

The bypass budget amount of $2.4 billion "represents a significant increase over the President's budget for FY 91, but we believe it is fully justified and realistic considering the opportunities and the potential. We are convinced it is an amount that will be well spent.

"We have reviewed NCI public documents, talked to our colleagues at the Institute, and asked a lot of questions. We have tremendous respect for NCI leadership, and believe the 1991 bypass budget is an accurate reflection of the needs for next year's opportunities."

Eva Singletary, assistant professor of surgery at Univ. of Texas M.D. Anderson Cancer Center, discussed advances in breast cancer treatment in her testimony before the subcommittee.

"Remarkable advances in breast cancer treatment

have been recorded in recent years, and current research points to even more impressive accomplishments in the decade ahead. Some of the particularly promising leads are in jeopardy of being curtailed, however, because of the President's proposed FY 1991 budget," Singletary said.

Promising Leads 'In Jeopardy'

"Past Congressional support for priority NCI programs included funding for virtually all of the clinical trials that have allowed so much progress in the multidisciplinary treatment of breast cancer. Certainly, those of us working to lengthen survival rates for all types of cancer ... are grateful for the generally high level of support since the National Cancer Act was passed in 1971. Just to maintain the continuum of clinical and basic research, though, will require more support than the President's recommended budget.

"It is fair to state that never have there been so many exciting new directions in basic research that point to clearer fundamental understanding of the biologic behavior of human breast cancer. Some of these avenues focus on the interaction of tumor cells with their microenvironment, growth factors and their receptors, cancer causing genes known as oncogenes, the extracellular matrix and chromosomal abnormalities.

"Further knowledge about the complexity of breast cancer can be achieved only through expanding the research continuum that demands even closer collaboration between basic scientists and clinical specialists working in productive research-driven programs conducted in the best possible facilities.

"One of the most important areas needed expanded research is prevention. The precise role of dietary fat and other nutritional factors strongly linked to the development of breast cancer, along with the intricacies of familial influence, must be pursued vigorously in order to truly control breast cancer in the future. These kinds of studies cannot be completed during the typical grant period, but must be conducted over many years to obtain accurate data....

"I hope you will take advantage of the golden research opportunities we have and help expedite the time when breast cancer no longer will be such an overwhelming disease for women everywhere."

Richard O'Reilly, chairman of the pediatrics department at Memorial Sloan-Kettering Cancer Center, testified before the subcommittee on behalf of the American Assn. for Cancer Research.

"The carnage of cancer is immense," O'Reilly said. "In the four year course of World War II, 405,000 Americans died in defense of their country, yet 500,000 Americans die of cancer yearly. The Vietnam war claimed 58,000 American lives in its 10 year course; yet, in one year, 59,000 individuals die of colon cancer in the U.S. and 38,000 succumb to breast cancer. Fueled by cigarettes, lung cancer alone claims 121,000 lives."

O'Reilly went on to list many advances in cancer research over the past 19 years, such as identification of oncogenes and suppressor genes, growth factors, development of monoclonal antibodies, and intensive combination treatments.

"Have these advances made a difference to the cancer patient? The answer is a resounding yes, and nowhere more so than in my own field of pediatrics," O'Reilly said. As an intern in 1969, he said, he had to tell a teenager that she would have to lose her leg to stop bone cancer, and even then, her chance of surviving the disease was only 20 percent. "Today, the same teenager would have a 70 to 80 percent chance of being cured, and the surgery would preserve her limb." Also, he noted, more than 75 percent of children are cured of leukemia.

Bypass Amount Equals One B-2 Bomber

"Given these statistics in children, we are often asked why similar progress hasn't been made in the treatment of cancers arising in adulthood. In fact, for several cancers in adults, such as Hodgkin's disease, testicular cancer, lymphomas and certain forms of leukemia, the application of intensive chemotherapeutic regimes similar to those used for children has markedly improved cure rates....

"To summarize where we are now in the war against cancer, we can say that we have established a beachhead. We have demonstrated that we can cure some cancers. We have developed a technology which allows us to ask questions about cancer that could not even be conceived before. We are also able to more rapidly translate results of basic research into more effective therapies and better preventive measures. However, the hardest tasks are still ahead of us. The question now is: to what degree are we, as a nation, willing to commit the resources needed to overcome this dreaded enemy? Will we exploit the unique opportunities now presented, maintain our leadership position and carry the battle forward, or will we allow the momentum of our current research program to languish?"

O'Reilly noted that the $716 difference between the President's request for NCI and the bypass budget is "slightly more than the cost of one of the 132 "Stealth" B-2 bombers requested by the Defense Department."

Furthermore, O'Reilly said, downward negotiations

for new grants and funding only 27 percent of approved grants sends "a clear and frightening message to young trainees in biomedical research: their chances of surviving in biomedical research with these odds are meager.... The proportion of medical students entering research careers is also plummeting."

The funding requested in the bypass budget, O'Reilly said, "is essential to sustain the progress of cancer research in this country and to insure that talented young investigators continue to be attracted into this vitally important field.

"It is only through sustained support of this type that the war against cancer can advance and be won," he concluded.

Importance Of Prevention Trials

Maureen Henderson, head of the cancer prevention program at Fred Hutchinson Cancer Research Center, told the subcommittee about the importance of funding clinical trials in cancer prevention.

Henderson urged the subcommittee specifically to provide funding for the Dietary Fat Intervention Trial in Women, or Diet FIT, which was voted down by the National Cancer Advisory Board last year "for reasons other than scientific merit," according to an NCAB statement released at the time. The trial would have cost about $60 million over its lifetime.

"We firmly believe that a single dietary change which cuts total fat consumption by 50 percent has an extremely high likelihood of preventing half or more of the annual cases of breast, colon, ovarian and uterine cancer and at least one-third of the annual cases of coronary heart disease in postmenopausal women," Henderson told the subcommittee.

"Prevention trials are at the most applied end of the research spectrum and are often postponed or underfunded.

"Prevention research has less emotional appeal than clinical research; its projects are often more costly than basic science projects; and its scientists and advocates are few in number," Henderson said.

"We believe that Congress should communicate to the appropriate federal funding agencies its strong commitment to prevention trials as well as basic science and clinical research and should consider mandatory support of all parts of the research spectrum.

"In our opinion, a $20 to $30 million addition to the prevention and control budget of NCI would make a major difference in the time it will take us to lower rates of these major diseases in women, as well as prostate and colon cancer, and coronary heart disease in men," Henderson concluded.

Newsletter Publisher Receives Six Figure Settlement In Copyright Case

An Arlington, VA, newsletter publisher has received what he says may be the industry's largest settlement of a copyright infringement claim, a "six figure" amount.

David Swit, president of Washington Business Information Inc. (WBII), said that a worker's tip about his employer's photocopying of one of Swit's newsletters led to the negotiations which produced the settlement. The agreement barred disclosure of the company's name, which Swit said was a Fortune 50 firm, or the amount.

WBII publishes 11 newsletters in the health related and regulatory fields.

The employee reported the photocopying to WBII in response to a notice in the newsletter offering a reward for such information, disclosing that copies of the newsletter were made regularly. The settlement was one of several WBII has negotiated recently.

"This major settlement shows our determination, and the newsletter industry's, to stop readers from picking our pockets with photocopying machines," Swit said. "We allow photocopying on a simple royalty system but draw the line at unauthorized or cover to cover copying and will go to the mat with any organization that photocopies illicitly."

Violators of copyrights risk statutory damages of up to $100,000 for each issue violated, plus legal fees, and can be subject to criminal penalties.

Swit, a founder and past president of the Newsletter Assn., formed his company in 1972, starting with "Product Safety Letter." Before that, he was managing editor of the "Pink Sheet," published by F-D-C Reports, which also publishes the "Blue Sheet" and other newsletters.

New Approaches To Drug Resistance Presented At Bristol Symposium

Eighteen cancer researchers from the U.S., Japan, Canada, Holland, and Italy presented their most recent findings on multidrug resistance at the 13th Bristol-Myers Squibb Symposium on Cancer Research this week in Tokyo.

The symposium, "Drug Resistance as a Biochemical target in Cancer Chemotherapy," was organized by the Japanese Foundation for Cancer Research under a Bristol-Myers Squibb unrestricted cancer research grant.

Among the presentations were those by:

--**Karen Antman**, Harvard Medical School and Dana-

Farber Cancer Institute, who heads a team investigating overcoming drug resistance in advanced breast cancer by using high dose chemotherapy and autologous bone marrow transplant.

Bone marrow transplantation has been used to treat lymphomas and leukemias for several years but only recently has been tested on patients with solid tumors. The process as used at Dana-Farber involves removing about a quart of the patient's bone marrow by a needle inserted in the hip bone. The red cells are returned to the patient, and the remaining marrow can be briefly treated with anticancer drugs to kill any cancer cells before being frozen to minus 160 degrees centigrade in liquid nitrogen.

The patient is then treated for four days with massive doses of anticancer drugs, which kill not only the cancer cells but the remaining bone marrow. Three days later, the frozen marrow is thawed and intravenously returned to the patient.

Because the bone marrow leaves the patient without an immune system, for the next several weeks the patient must be isolated to guard against infection.

Patients are usually selected for the high dose treatment based on their prognosis, Antman said. "Generally, those patients who have responded well to standard dose therapies but have an invariably fatal disease have the best chance of benefitting from the new treatment. They also are the most appropriate patients to include in these studies."

Some investigators believe that this high dose chemotherapy coupled with bone marrow transplantation should be given early in the disease when patients can best withstand the relatively risky treatment and before extensive drug resistance develops.

According to Antman, two new developments make high dose chemotherapy medically and physically easier, less expensive, and safer. The first is the use of human growth factors to speed the recovery of white cells needed to control infection and of platelets essential for blood clotting. The other involves collecting blood stem cells from patients who have been treated with growth factors during recovery from chemotherapy and reinfusing those cells into the patient.

--**Michael Gottesman**, chief of the Laboratory of Cell Biology at NCI's Div. of Cancer Biology, Diagnosis, & Centers, reported on work involving genetics of multidrug resistance, carried out with Ira Pastan, chief of the Laboratory of Molecular Biology.

The recent discovery of a protein "pump" (p-glycoprotein) on the surface of certain cells helped explain why all organisms, including the cells within a patient's tumor, seem to have the capacity to become resistant to a broad range of potentially lethal anticancer drugs--even those to which they have never been exposed. The pump on the cell's membrane spits out harmful anticancer drugs before they can accumulate in quantities large enough to kill the cell. "We're beginning to learn the ways by which we could overcome the protein pump system in order to make anticancer drugs more effective," Gottesman said.

Scientists believe it may be possible to circumvent the action of the pump in tumor cells by administering very high doses of chemotherapy to kill the tumor cells before they can develop a resistance to the drugs. Such high doses, however, also can destroy bone marrow.

Laboratory experiments indicate it may be possible to protect the bone marrow of patients given massive doses of anticancer drugs. "It might be possible in the future to introduce this drug resistance gene into normal human marrow in a patient undergoing chemo- therapy and cause the marrow to resist the destructive effects of chemotherapy," Gottesman said. "This might then permit the patient to tolerate higher and presumably more effective doses of chemotherapy."

To test this hypothesis, Gottesman and Pastan, working with Glenn Merlino and Hanan Golski, created a transgenic mouse by introducing a human pump gene into a normal mouse. Although bone marrow cells do not normally produce the pump protein, the scientists introduced the human pump gene into the mouse so that its marrow produced the pump protein. The mouse was then given chemotherapy. About a week later, the chemotherapy began killing the white blood cells in mice which did not have the pump. In the mice whose bone marrow cells produced the pump protein, "there was no evidence of a reduction in white blood cells from the chemotherapy," Gottesman said. He concluded that the protein produced by the pump genes can make normal bone marrow cells resistant to chemotherapy.

Some scientists are trying to develop drugs that will inhibit the pump and make pump producing tumors more vulnerable to anticancer drugs. "If you knock out the pump, presumably the chemotherapy will work better," Gottesman said. "This transgenic mouse allows those researchers to test that hypothesis in a live animal."

--**Takashi Tsuruo**, chief of the Cancer Chemotherapy Center at the Japanese Foundation for Cancer Research and professor of applied microbiology at the Univ. of Tokyo, has developed a procedure using monoclonal antibodies to knock out the pump producing cells.

Using genetic engineering techniques, Tsuruo created monoclonal antibodies that react to the pump protein. His experiments showed that the antibodies destroyed a variety of multidrug resistant cancer cells grown in the laboratory.

Tsuruo noted that the antibodies he developed, in contrast to others, bind to the outside of cells, apparently blocking the pump's ability to eject the drugs through the cell membrane and enabling the anticancer drug to remain inside the cell long enough to kill it.

As a next step in bringing this new therapy to patients, Tsuruo will begin preclinical trials on ovarian tumors and cancers of the blood later this year in collaboration with the U.S. National Cancer Institute.

To produce the antibody that specifically recognizes the pump protein, Tsuruo repeatedly inoculated a mouse with human drug resistant tumor cells. This caused the mouse to build up an immune response. He was then able to isolate a monoclonal antibody that recognizes the pump protein. Because humans tend to mount an immune reaction to mouse antibodies, Tsuruo created a new hybrid that is essentially human with only the portion that recognizes the pump protein derived from the mouse. This chimeric antibody is expected to produce fewer negative side effects and to be more tolerable to humans.

Because the monoclonal antibodies can find cells that produce the pump protein, it is anticipated that they may provide a valuable diagnostic tool to determine whether a patient's cancer will resist anticancer drugs. This may permit physicians to decide on the most appropriate treatment strategy.

Consensus Conference On Early Breast Cancer Planned For June

An NIH consensus development conference on early stage breast cancer is scheduled for June 18-21, at Masur Auditorium at the NIH Clinical Center. The conference is open to the public.

The purpose of the conference is to reach agreement on the treatment of early stage breast cancer. The conference is designed to bring together specialists in oncology, surgery, clinical trials and other relevant fields.

On the first two days, experts will present current scientific thinking about the diagnosis, management and prevention of breast cancer, and voluntary organizations will be invited to make statements. On the third day, the panel will meet in a closed session to produce the draft report and on the fourth day, after considering the scientific evidence, the consensus panel will present its draft report and invite comments from the audience. William Wood, chief of surgical oncology at Massachusetts General Hospital, will chair the panel.

Key questions to be addressed by the conference are:

▸What are the roles of mastectomy versus breast conservation in the treatment of early stage breast cancer?

▸What are the optimal techniques for breast conservation?

▸What is the role of adjuvant therapy for patients with node negative breast cancer?

▸How should prognostic factors be used in the management of node negative breast cancer?

▸What are the directions for future research?

ONS Forms More Interest Groups To Meet Specialty Needs

The Oncology Nursing Society has formed the following special interest groups to respond to the specialized needs of members. The groups and their coordinators are listed below:

Ethnic Patient Issues--Guadalupe Palos, Texas Nurses' Foundation Nurse Oncology Education Program, Austin, TX.

Home Care--Judy Head, Linecare Inc., Orlando, FL.

Hospice--Mary Petersen, candidate for executive masters in business administration at Univ. of Nebraska, Omaha.

Management--Andrea Segura, Community Hospital of the Monterey Peninsula, Monterey, CA.

Pain Management--Deborah Thorpe, M.D. Anderson Cancer Center, Houston, TX.

Patient Education--Kate Douglas, Visiting Health Services of New Jersey, Totowa, NJ.

Clinical Trial Nurses--Janet Zimmerman, Barnett Associates, Chester, PA.

Pediatrics--Robin Heil, Mott Children's Hospital, Univ. of Michigan, Ann Arbor.

Early Detection--Debra Hubbard, Charlotte Hungerford Hospital, Torrington, CN.

Psychosocial--Margaret Cawley, Booth Memorial Hospital, Flushing, NY.

Radiation--Roberta Strohl, Univ. of Maryland, Baltimore.

For information on membership in the special interest groups contact the ONS, 1016 Greentree Rd., Pittsburgh, PA 15220, phone 412/921-7373.