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Illinois Congressman Makes Public Commitment To Approval Of NCI's FY 1991 Bypass Budget

Illinois Congressman John Porter, a member of the House Labor-HHS-Education Appropriations Subcommittee, has called for approval of NCI's bypass budget for the 1991 fiscal year. It is the first time in years that any member of Congress, let alone one who serves on the committee that draws up the appropriations bill which includes NCI's budget, has publicly committed to the bypass budget. Porter's comment was made when he addressed the Sixth International Cancer Symposium in Rio De Janeiro last week.

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In Brief

Flood At Ohio's Arthur James Cancer Hospital Sets Back Opening; Biometry Article Honored

OHIO STATE'S new \$54 million cancer hospital won't open until June due to extensive flooding caused by a broken water pipe. The Arthur James Cancer Hospital and Research Institute was to open officially on Jan. 16, but cold temperatures on Dec. 24 caused a water pipe on the top floor of the building to freeze and burst, flooding the 12 story building. Richard Jackson, vice president for business and administration, told the university board of trustees that the top two floors of the building, which house the research institute, might be ready for occupancy by Feb. 12. He said the rest of the hospital would not open until June 1 at the earliest. A complete evaluation of the building is underway. . . . **CYRUS MEHTA** of Dana-Farber Cancer Institute, Karim Hirji of UCLA School of Medicine and Nitin Patel of the Indian Institute of Management have received the 1989 George Snedecor Memorial award for best publication in biometry for 1988 by the American Statistical Assn. The authors were given the honor for their paper "Exact Inference for Matched Case Control Studies," in "Biometrics," 44:803-14. The paper was cited for being "an important contribution to the analysis of epidemiological studies with small sample sizes or sparse data structure." . . . **TATE THIGPEN**, director of the Div. of Medical Oncology at Univ. of Mississippi Medical Center, was elected president-elect of Optimist International, the service club organization. He will become president of the organization in October. . . . **COMBINING BIOLOGICAL Response Modifiers With Cytotoxics in the Treatment of Cancer**, a conference sponsored by NCI, is scheduled for March 5-7 at the Omni Inner Harbor Hotel in Baltimore. The registration deadline is Feb. 2. For registration information contact Abbe Smith or Debra Casey, 301/770-3153.

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Move Resources From Defense To NIH And NCI, Porter Says

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"International cooperation in biomedical research can and must receive strong support," Porter said. "The United States can and should do more. We could start by passing the National Cancer Institute bypass budget for fiscal year 1991. That would be about \$750 million more than NCI's budget this year. With the winding down of the East-West confrontation, the chance exists to move resources from that arena to those of positive benefit such as biomedical research.

"A shift of just two and a half percent from defense funds to NIH would double the NIH budget," Porter continued.

"While this will not happen all at once, I will be working in Congress to increase NCI funding dramatically this year."

That was the most positive statement about NCI's budget prospects by a member of either the House or Senate Appropriations Committees in years, since the huge federal deficits and Gramm-Rudman-Hollings deficit reduction act have held NCI and NIH to less than inflation annual increases.

Immediately after Porter's address, he told *The Cancer Letter* that the speed with which money could be freed up from defense would determine how soon large amounts could be moved into other sectors. "We probably won't be able to get the bypass budget this year, but I am going to work hard for a very substantial increase for this year, and for the full bypass budget in 1992."

Porter indicated that comparable increases should be made across the board at NIH. "The situation there is deplorable, with the salary structure causing the loss of many of our best scientists, and with less than 20 percent of grants being funded this year. Something

has to be done. The number one priority of American people is their health and health care."

Porter, a Republican, is the third ranking minority member of the subcommittee, behind Silvio Conte of Massachusetts and Carl Pursell of Michigan. Does he think he can sell the Democrats on accepting the bypass budget for NCI, particularly Subcommittee Chairman William Natcher and Appropriations Committee Chairman Jamie Whitten?

"I think they are as committed as I am to NIH and biomedical research," Porter said. "The committee has always been a very strong supporter of NIH."

He should have no trouble convincing Conte, who has been critical of the White House on many occasions in the past for not allocating more money for NIH and NCI.

With Congress still in recess, *The Cancer Letter* was unable to reach other members of the subcommittee. But a staff member of the subcommittee and spokesman for Natcher, advised of Porter's position on the bypass budget, said, "We don't have the bypass budget yet and we don't have the President's budget yet, so we don't have any idea of the parameters under which we would be operating. Our decisions are made in context of those parameters. There is no way that we could comment. He (Porter) has a right to propose whatever he wants."

In his address at the symposium, Porter said that the U.S. "must create an even stronger consensus for biomedical research and international collaboration. I think that we can start to create such a consensus by recognizing that biomedical research saves money because it results in fewer workdays lost, fewer expensive late life illnesses, and the prevention of debilitating conditions through the development and use of vaccines. . . Every dollar or franc or peso or ruble spent to prevent disease saves 1,000 times as much money in treating the consequences of disease."

Porter said that as a member of the Natcher subcommittee, he has learned at appropriations hearings "about progress in the fight against cancer and AIDS. I've learned about the identification of genetic indicators for certain cancers, and about the use of interleukin-2 in treating melanomas, and about the success of the drug suramin in treating prostate cancer. I know about the success of early chemotherapy in treating breast cancer, and about improvements in surgical methods which require less radical and less disfiguring surgeries.

"I've also learned another important lesson, and that is that basic biomedical research often pays unexpected dividends.

"I learned this by watching the progress of

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international scientists on AIDS. As you all know, when the AIDS pandemic struck, we were without many answers. There were nothing but questions. But important viral research which had been ongoing in the United States and around the world, including research on viral cancers, formed the building blocks for work on AIDS, helping scientists to identify the human immunodeficiency virus, and understand its operation in the human body.

"Similarly, I am confident that the work that is occurring today on genetic research, and on molecular research, will pave the way for future breakthroughs in AIDS and cancer in many other fields. Today's work on AIDS will advance our understanding of the human immune system, and pay numerous dividends down the road."

Porter also serves on the Foreign Operations Appropriations Subcommittee. His bill authorizing the exchange of debt for preservation of tropical forest, which has been signed into law by President Bush, "can be of some help" in the search for new AIDS and cancer drugs through the collection of rare tropical plants, he said. NCI's Developmental Therapeutics Program includes that effort by its Natural Products Branch.

Rose Kushner, Author, Advocate Dead At 60 Of Breast Cancer

Rose Kushner, 60, author, journalist and an outspoken advocate for women with breast cancer, died Jan. 7 at Georgetown Univ. Hospital in Washington of the disease that was her crusade for the past 17 years. She lived in Kensington, MD.

Kushner was one of the few female war correspondents in Vietnam as a reporter for the Baltimore Sunpapers. She gained national attention in 1975 when she turned her journalistic talents to chronicling her struggle with breast cancer. Her first book on the subject was "Breast Cancer: A Personal History & An Investigative Report," published by Harcourt Brace Jovanovich. Her second book, "Why Me? What Every Woman Should Know About Breast Cancer to Save Her Life," published by W.B. Saunders Co. in 1977 is regarded as a standard reference.

Tenacious and opinionated, Kushner became a leading critic of standard medical procedures. At the same time, she supported increased funding for cancer research and legislation requiring insurance reimbursement for mammography screening.

"She did more for women with breast cancer than any other human being in the world," said Helene Brown, director for community applications of research

at the Jonsson Comprehensive Cancer Center at UCLA and a member of the National Cancer Advisory Board. "Prior to Rose, you were a good patient if you sat still and took the treatment and you were a bad patient if you asked questions. She gave women--and men--the right to question their doctors."

Kushner frequently was at odds with physicians, and especially surgeons, over what they considered standard therapy for breast cancer. Her first target was the then routine "one step" procedure, in which women with suspicious lumps in the breast would be anesthetized, the lump removed for biopsy, and if it was found to be malignant, the breast would be removed. A woman often did not know whether she would wake up from surgery with one breast or two.

She also strongly opposed routine use of the Halstead radical mastectomy, particularly after the National Surgical Adjuvant Breast & Bowel Project studies demonstrated that modified radicals, and in many cases, lumpectomies, were just as effective and less disfiguring.

When Kushner found a lump in her breast in 1974, she refused to submit to the one step procedure. In "Why Me?" Kushner wrote about her search for information about breast cancer. She found a general surgeon who performed the biopsy and then found a breast cancer specialist to perform a modified radical mastectomy.

The American Cancer Society was one of the establishment groups that Kushner fought vigorously on the issue. "In the early 1970's, we didn't see eye to eye," said Alan Davis, vice president for government affairs at ACS. "She kept at it and finally convinced the doubters."

In "Why Me?" Kushner called ACS "a conservative organization that moves with the speed of a senile snail." Later, she became an advisor to the society and served on its Breast Cancer Task Force. In 1987, ACS gave Kushner its highest award, the Medal of Honor. Last year she also received the American Cancer Society D.C. Division's Courage Award.

Last month the Society of Surgical Oncology announced Kushner would receive its annual James Ewing Layman's award at the society's annual meeting in May. In 1975, Kushner was heckled off the stage when she spoke at the society's meeting. Other organizations have recognized her work. Last year, the "Ladies Home Journal" named her one of America's 100 most important women.

"She accomplished a great deal in raising the idea of treatment alternatives in the medical establishment and among patients," said David Korn, chairman of the NCAB.

Kushner was a frequent participant and observer at NCI meetings and developed a reputation for asking astute questions. She became a role model for other patient advocates. In 1980, President Carter appointed Kushner to the NCAB. She served on the board until 1986.

"It was hard for some of those physicians who were not used to the idea of consumer advocacy to deal with Rose, who could look them in the eye and say what she thought," said Grace Monaco, president of the Candlelighters Childhood Cancer Foundation. "She taught me not to be afraid to speak my mind in the company of physicians."

Memorial Service Planned

A memorial service for Rose Kushner is scheduled to be held at NIH Masur Auditorium Tuesday, Jan. 30 at 11 a.m. The service is open to the public.

"She was very committed to what she was doing and she never quit--that's what made her maddening to some people and endearing to others," said Nancy Brinker, founder of the Susan Komen Foundation and a member of the

NCAB.

"She was tough to work with," Brown said. "There was an abrasive side to her nature. But if you knew her at all and listened to what she had to say, you'd realize she was a worthy critic. She upset a lot of people, and in doing so she probably saved a lot of lives."

Paul Engstrom, vice president for population sciences at Fox Chase Cancer Center and chairman of the Div. of Cancer Prevention & Control Board of Scientific Counselors from 1986 to 1989, got to know Kushner when she served on an evaluation committee for the Women's Health Trial, a dietary cancer prevention trial that NCI later ended at the committee's recommendation.

"The striking thing Rose was able to do was to bring the esoteric scientific discussion around to remind us that we were dealing with women's lives," Engstrom said. "She understood what medical scientists were trying to do, and was able to talk to them on the same plane, with logic and persuasion that pricked our bubbles."

Kushner also was a persistent lobbyist, both on the state and national levels. She pushed for laws that require doctors to fully inform women with breast cancer of their treatment choices and for insurance reimbursement for mammography screening. Many states have enacted such legislation and Congress two

years ago approved Medicare mammography reimbursement as part of the Catastrophic Coverage Act. When the bill was repealed last November, the mammography portion went down with it.

Bill Honoring Kushner To Be Introduced

In 1975, Kushner founded the Breast Cancer Advisory Center to provide information to women on breast cancer. In 1988, she began a political action committee, BreastPac, to raise money to help elect candidates who fight for breast cancer research funds. She also was instrumental in establishing the National Alliance of Breast Cancer Organizations.

Rep. Mary Rose Oakar (D-OH) plans to reintroduce legislation next week that will require Medicare reimbursement for mammography screening. The title of the bill will be "The Rose Kushner Memorial Breast Cancer Act of 1990," *The Cancer Letter* has learned.

Oakar has said that Kushner's advice and emotional support helped her during her mother's and sister's battles with breast cancer. Kushner worked on a number of cancer initiatives that the congresswoman has sponsored.

"She was a pioneer in changing the course of the way women with breast cancer were treated, not only by the medical profession but by others," Oakar told *The Cancer Letter* through a spokesman last week. "The legacy of Rose Kushner's work will be realized when we have found a cure for cancer."

'She Left Us With A Challenge'

In a letter sent last week to Kushner's family, NCI Director Samuel Broder wrote, "I wish to extend to you my deepest sympathy for your loss. Rose was an extraordinary woman. Think how much better the world would be if we all absorbed the lessons of our own lives, shared what we had learned, assisted those less able and tried to change conditions that needed to be changed. She changed a personal tragedy into a crusade and helped women all over the world. She faced her own fears, did her own grieving and then empowered others to learn how to seek the best care, get the best advice and retain the right to make personal decisions.

"As a journalist, her best subjects were her own experience, those of other women with breast cancer and their families. She turned her journalism into activism and every time she was at a meeting, her presence was felt. Her efforts as a lobbyist changed laws and insurance policies. She was fearless as she represented the rights of patients.

"There will always be public records of her activism, not only in her books, but also because so often the

suggestions that she made, the outrages that she experienced, became institutionally sanctioned recommendations for change....

"We valued her judgment and her hard won wisdom. She left us with a permanent challenge: Listen to the patient."

Kushner is survived by her husband, Harvey; her sons Gantt of Silver Spring, MD, and Todd of Rockville, MD; her daughter Lesley Kushner of San Francisco, and her brothers, Isaac and Meyer Rehert of Baltimore and Paul Rehert of West Palm Beach, FL.

Contributions may be sent to the Lombardi Cancer Research Center, Georgetown Univ. Medical Center, 3800 Reservoir Rd. N.W., Washington, D.C. 20007.

Statistics Review Through 1986 Shows Improved Mortality Under 65

NCI's annual Cancer Statistics Review, the most up to date compilation available of cancer incidence, mortality, and survival, provides a fairly clear picture of trends in those categories. The 1989 review includes data through 1986, the latest year for which figures were available at time of publication.

The review summarizes major findings in an overview, excerpts from which follow:

*** Annual mortality rates (deaths per 100,000) for the period 1973-86**

--Improvement is evident in the large reductions in the annual cancer mortality rates among persons under age 65. Mortality from cancers of the uterine corpus and cervix, urinary bladder, thyroid, stomach, and ovary has declined between 20 and 40 percent; reductions of 10 to 20 percent have occurred for oral cavity, leukemia, colon and rectum, pancreas, and the brain and nervous system. Cancer in young adults has decreased greatly, for example testicular cancer and Hodgkin's disease have declined by more than 50 percent. However, other cancers have shown increases: female lung cancer is up 60 percent with melanoma and non-Hodgkin's lymphoma increasing by 17 and 3 percent, respectively.

Between 1973 and 1986 the mortality rate for all cancers combined for persons under 65 decreased 3 percent; if lung cancer is excluded, and nearly all lung cancer can be prevented by eliminating smoking, there was a 10 percent decrease.

--Cancer mortality in white children has declined 34.9 percent in the 14 year period 1973-86 (60.3 percent since 1950), which is recognized as due to treatment, particularly treatment through the nation's network of clinical trials and cancer centers.

--Some significant decreases in cancer mortality

rates among persons 65 and over have occurred since 1973: urinary bladder cancer, down 18 percent; uterine corpus and oral cancer, each down 10 percent; and colorectal cancer, down 5 percent. On the other hand, many cancer sites have shown increases in mortality including: all sites combined, up 12 percent, and all sites combined excluding lung, up 3 percent; lung cancer among females, up 141 percent; multiple myeloma, up 32 percent; cancers of the breast, ovary, and prostate each increased by 10-12 percent.

--The lung cancer mortality rate in white males rose by 16 percent between 1973 and 1986; however, the trend appears to be leveling off. For black males, lung cancer mortality rates have increased by 29 percent since 1973; the rates since 1984 remain almost the same. The rate for all females rose 94 percent from 1973 to 1986; the most recent five year figures indicate that the rate of increase has slowed but continues to increase by about 4 percent per year.

Due to the high percentage of lung cancer patients who die, incidence trends for this cancer are especially predictive of trends in its mortality rates. The lung cancer incidence rate in white males has begun to decrease, while the rate for black males has continued to increase slowly. Lung cancer incidence among all females continues to rise; recently the annual rate of increase for white females has slowed but for black females remains high at over 8 percent per year.

--The age adjusted annual mortality rate from all cancers excluding lung is down 2.1 percent since 1973, and, attesting to the magnitude of lung cancer, mortality from all cancers combined including lung cancer is up 5.4 percent.

*** Disproportionate cancer rates among blacks**

--Black males have a mortality rate 40 percent higher than white males and the mortality rate for black women is over 16 percent higher than the rate for white women. For many cancers, black rates are increasing in contrast to decreasing rates among whites. For example, colorectal cancer mortality has fallen 9 percent in whites, but has increased by 10 percent in blacks between 1973 and 1986. Blacks have two to three times the mortality rate of whites for cancers of the esophagus, uterine cervix, larynx, prostate, stomach, oral cavity, uterine corpus, and liver, and for multiple myeloma.

--The differences between five year relative survival among whites and blacks by sex is particularly striking: females, 56 percent for whites against 44 percent for blacks; males, 46 percent for whites against 33 percent for blacks.

*** Cancer patient survival 1974-76 vs. 1980-85**

--There is an increase in five year relative survival from all cancers combined from 48.9 percent for patients diagnosed in 1974-76 to 49.8 percent for all cancers combined for patients diagnosed during the period 1980-85. Relative survival is defined as the likelihood that a person will not die from causes associated with cancer within five years after diagnosis.

--There is an increase in five year relative survival among white cancer patients. Survival has increased from 49.9 percent for patients diagnosed in 1974-76 to 51.1 percent for 1980-85. This is the largest such increase in the history of the SEER Program (data collected since 1973).

SEER is Surveillance, Epidemiology & End Results, the program in which NCI contracts with registries at selected locations around the country to collect data.

--Among blacks, however, there has been a decrease in the five year relative survival from 38.6 percent for patients diagnosed in 1974-76 to 38.1 percent for patients diagnosed during 1980-85.

*** Lung, breast, and uterine cancer trends among women**

--Lung cancer has climbed among women despite all that is known about preventing the disease. Now lung cancer mortality among women has finally overtaken breast cancer as the leading cancer killer among white women. Trends clearly indicate the same will be true by the end of the year for all women.

--While concern is high over rising breast cancer incidence rates, the increases may be due more to better and earlier detection than to a real increase in the disease. Nonetheless, breast cancer incidence rates have increased 15 percent from 1982 through 1986. The rates are now higher than for any year since data collection began in 1973. Many experts feel that the large increase also apparent in in situ breast cancer cases signals that increased early detection is taking place.

--Breast cancer mortality rates in women over 50, which have shown a small and consistent increasing trend since 1973, fluctuated little between 1984 and 1986, and appear to be leveling off. On the other hand, for women under 50, the rate declined slowly from 7.0 deaths per 100,000 women in 1973 to 6.0 in 1983 and has increased from that point to 6.4 in 1986.

--The dramatic decline in cancer of the cervix--a reduction of more than 70 percent since 1950--is much less steep than in earlier years. Although the incidence rates have been decreasing, the in situ rates have risen in younger women, ages 15-49.

*** Impact of an aging population**

--In general, cancer incidence and mortality rates rise with increasing age. Therefore, with increasing

numbers of persons living to older ages, the number of new cancer cases will increase (with age specific cancer rates held constant). Estimates for cancer cases and deaths in the U.S. for 1989 are 1,010,000 and 502,000, respectively, the first time cases will top one million and deaths will exceed a half million.

*** Other trend information**

--Smoking rates continue to decline, but much more slowly in females than in males. At the current relatively low rate of decline, the percentage of female smokers will exceed that of male smokers by the year 2000.

--As of 1987, dietary recommendations have not resulted in a change in the national average figures for the consumption of fat and fiber.

--Screening figures for breast and cervical cancers have improved considerably in the black community, but less so among whites. This has resulted in blacks achieving some higher screening percentages (Pap smear and breast physical exam) than whites.

--SEER data indicate increases in the percentage of patients offered state of the art treatments in rectal, ovarian, breast, cervix, and testicular cancers.

The review analyzed data for various specific cancers, including:

--Colorectal cancer. The age adjusted incidence rate for cancer of the colon is more than twice that for the rectum. Statistically significant increases in colon cancer were noted for whites and blacks and for each sex over the period 1973-86. Rectal cancer mortality declined by over 30 percent between 1973 and 1986 in each of the four race-sex groups. The decline in rectal cancer mortality is due in part to certification of some rectal cancer deaths to colon cancer. However, even when taken together, there has been a statistically significant decrease in colorectal cancer mortality.

The trends from 1973-86 in colorectal cancer differ according to sex. Among males the mortality has decreased by 2.2 percent, but the trend in females shows a much steeper decline, 12.5 percent. In turn, these trends seem directly related to trends in incidence which have been increasing more sharply in males (up 13.1 percent) than females (up 5.6 percent).

In effect, the differential between incidence and mortality is widening for both males and females, but the lower rate of increase in incidence among females leads to a net reduction in mortality.

The trends also differ according to racial groups, with blacks having an increase in mortality of 10.3 percent compared to a decrease among whites of 8.9

percent. The trend among black males shows a 27.7 percent increase in incidence contrasted with an 18.7 percent increase among black females. The mortality trends show a 16.0 percent increase in mortality among black males contrasted with an increase of 6.0 percent among black females.

Therefore, the gap between incidence and mortality is widening at about the same rate for both black males and black females, although the net result is that mortality is increasing less quickly for females than males. Among white females the mortality is decreasing more quickly than among white males.

--Melanoma. Incidence has increased by 74.4 percent and mortality by 27.2 percent since 1973. The change is thought to be largely due to ultraviolet radiation through increased sun exposure because of life style changes.

--Hodgkin's disease and non-Hodgkin's lymphoma. NHL has increased in mortality by 20.3 percent since 1973, in contrast to a decrease of 48.7 percent in Hodgkin's disease since 1973, and 60.1 percent since 1950 through development and application of improved treatment.

--Stomach cancer. Whites, blacks, and all races combined have had statistically significant decreases in stomach cancer mortality between 1973 and 1986, continuing a trend evidence since 1950. It appears, however, that the rate of decrease has slowed in more recent years. The mortality decline is striking, all the more so when it is realized that stomach cancer remains the leading cause of cancer deaths in many countries.

The specific reasons for the decline in the United States is thought to be due to improvements in the processing and preservation of food.

--Prostate cancer. The incidence rate of cancer of the prostate is 50 percent higher in black males than white males, 128.9 per 100,000 for blacks in 1982-86 against 83.5 for whites during the same time period. However, the mortality rate among blacks is more than double the rate for whites. Prostate cancer mortality increased 9.7 percent between 1973 and 1986.

Years of life lost due to premature death from cancer

Mortality rates alone do not give a complete picture of the burden of cancer on health and the health care system. Mortality rates or deaths do not give an indication of the extent of life cut short by the disease. The years of life lost due to premature death from cancer make clear the large extent to which cancer affects younger Americans.

The measure is estimated by merging sex specific life tables for the total U.S. population with cancer

mortality data which include age at death by site of cancer. The life tables permit a determination of the age at which an individual would have been expected to die conditional on their surviving to the age at which they died from cancer.

The sum of these time intervals over all individuals who died from cancer provides an estimate of the person years of life lost (PYLL) due to cancer in the general population. Also presented is the average years of life lost (AYLL) due to cancer which is obtained by dividing the PYLL by the number of cancer deaths. Both of these measures can be calculated for all cancer sites combined and for individual cancer sites.

For all cancer sites combined, the AYLL is about 15 years. The highest AYLL, about 68 years, is for children who die of cancer. Childhood cancers are followed by testicular cancer with an AYLL of about 36 years. The AYLL for breast cancer in females is about 19 years. Other cancer sites of interest include lung cancer with an AYLL of about 15 years and prostate cancer with an AYLL of about nine years.

Cancer Statistics Review: 1973-1986, which is identified as NIH Publication No. 89-2789, is available at no charge from NCI, Div. of Cancer Prevention & Control, Surveillance Program, Executive Plaza North Room 343, Bethesda, MD 20892. Phone requests are accepted: 301/496-8506.

RFPs Available

Requests for proposals described here pertain to contracts planned for award by the National Cancer Institute unless otherwise noted. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs, citing the RFP number, to the individual named, the Executive Plaza South room number shown, National Cancer Institute, Bethesda MD 20892. Proposals may be hand delivered to the Executive Plaza South Building, 6130 Executive Blvd., Rockville MD. RFP announcements from other agencies will include the complete mailing address at the end of each.

RFP NCI-CP-05619-13

Title: Resource to support the chemical, economic and biological information needs of the Div. of Cancer Etiology

Deadline: Approximately March 15

NCI's Div. of Cancer Etiology is recompeting a mechanism for the development of information in the areas of environmental and occupational cancer, which consists of four tasks.

Task 1: Support of the Chemical Selection and Nomination Process consists of two class studies per year, for a total of 10, during this five year acquisition. The contractor shall review classes (structural or use) of chemical substances, as directed by the project officer, and prepare a report for review by the Chemical Selection Planning Group and the Chemical Selection Working Group.

One of the reasons for conducting class studies is the selection of candidate chemicals on which summary sheets shall

be prepared for consideration by the CSWG for ultimate nomination to the National Toxicology Program. Suitable class studies shall be published in the open literature. Summary sheets will be prepared in accordance with a specific format. Thirty summary sheets per year are planned, for an approximate total of 150, during this five year period.

Plan, support, attend and prepare minutes of three to four CSWG meetings and eight CSPG meetings per year. Prepare and submit data packages containing the summary sheets and CSWG recommendations for those chemicals selected for nomination for carcinogenicity bioassay. Support the nomination of approximately 25 to 30 chemicals to the DCE short term testing program. Continue maintenance and updating of NCI's Chemical Tracking File which is a computerized file that tracks the status of all chemicals considered for nomination for carcinogenesis bioassay.

Task 2: Support of the Chemical Information Needs of the International Agency for Research on Cancer entails coordinating activities with International Agency for Research on Cancer staff and the NCI project officer.

For the five year period of this contract 15 IARC working group meetings are expected, requiring submission of information for Section 1 (Chemical and Physical Data) and Section 2 (Production, Use, Occurrence and Analysis) of the IARC monographs on the evaluation of carcinogenic risks to humans on 250 to 300 chemicals. Material is furnished to IARC no later than 90 days prior to each working group meeting.

A contractor representative (professional chemist or toxicologist to be approved by NCI) shall attend up to three IARC meetings per year. The contractor is expected to be familiar with chemical industry economics with emphasis on patterns of production, including chemical process flow distribution, intermediate use and end products, on a world wide basis (with emphasis on the U.S., Eastern and Western Europe and Japan), and have access to reliable national and international reference sources.

Task 3: Chemical Carcinogenesis Research Information System consists of maintaining and enhancing the CCRIS database which resides and may be search in the NIH, National Library of Medicine's TOXNET system. The contractor shall survey pertinent sources and evaluate data in accordance with the evaluation criteria furnished by NCI. After final review by a senior toxicologist and project officer, the contractor shall enter suitable studies on chemicals into the CCRIS database. For the five year period of this acquisition, accrual of studies on approximately 250 to 300 discrete chemicals per year, or a total of 1,250 to 1,500 chemicals, may be anticipated with some overlap on data for carcinogenicity, mutagenicity, co-carcinogenicity, etc.

Task 4: Special Studies entails the continued updating of the NCI 20 to 25 summaries per year. The contractor will respond to ad hoc inquiries, at the direction of the project officer, at the rate of approximately five per month.

This is a recompetition of contract number N01-CP-71082. It is anticipated that a cost reimbursement type contract will be awarded for a period of five years.

Contracting Officer: Sharon Miller
RCB Executive Plaza South Rm 620
301/496-8611

RFAs Available

RFA 90-CA-08

Title: Viral oncogenesis and pathogenesis of hepatocellular carcinoma

Letter of Intent Receipt Date: June 4

Application Receipt Date: Aug. 3

A diverse group of viral agents are etiologically associated with human viral hepatitis, some of which are also associated with

chronic sequelae that may progress to primary hepatocellular carcinoma. Hepatitis B virus is a double stranded DNA virus that occurs worldwide and can be transmitted by contaminated blood, blood products, or unsterile needles. In addition, horizontal spread of the virus occurs, particularly among young children, by contamination of mucous membranes or small breaks in the skin with contaminated secretions from infected playmates. Perinatal transmission from HBV infected mothers to offspring also occurs and is a particularly important mode of transmission in Asia. HBV progresses to a chronic infection or chronic carrier state in 5 to 10 percent of the adult clinical cases and has been strongly associated with the etiology of PHC.

The thrust of this RFA is to stimulate research on the human hepatitis viruses associated with liver cancer and their interactions with environmental factors and host factors in order to identify the mechanisms involved in establishment of chronicity, cell transformation and PHC.

Examples of research objectives would include the following: 1) development or use of sensitive and specific assays for blood born non A, non B hepatitis to determine the possible role of this agent in PHC; 2) determination of the prevalence of HBV strains resistant to currently available vaccines and the role of genetic variation of HBV isolates in this process; 3) definition of the role of the HBV X gene in transformation; 4) systematic studies of co-carcinogenesis in the development of PHC in animal models of human cancer; 5) determination, in transgenic animals, of the oncogenic potential of specific viral gene products; 6) determination of the possible role of cellular oncogenes or anti-oncogenes in PHC; 7) investigation of the role of chromosomal abnormalities in susceptibility to PHC; and 8) measurement of the host response to individual viral proteins with the goal of delineating the host response to different viral antigens in hepatitis associated premalignant and malignant sequelae.

Where appropriate, collaborative arrangements to facilitate the achievement of research goals should be considered. Applications should contain as goals both methodological development and application to a specific area of HBV or HCV oncogenesis as well as studies of possible synergistic interactions between viruses, alcohol, aflatoxins, etc.; basic and clinical issues are considered as appropriate subjects for this RFA.

This RFA is a one time solicitation. Generally, future unsolicited competing renewal applications will compete as research project applications with all other investigator initiated applications and be reviewed in a standing Div. of Research Grants study section. However, should NCI determine that there is a sufficient continuing program need, NCI may announce a request for renewal applications.

Approximately \$1 million in total costs per year for five years will be committed to fund applications that are submitted in response to this RFA. Actual funding is dependent on the receipt of a sufficient number of applications of high scientific merit. The total project period for applications submitted should not exceed five years. The earliest feasible start date for the initial awards will be April 1, 1991.

Although this program is provided for in the financial plans of NCI, award of grants pursuant to this RFA is also contingent upon the availability of funds of this purpose. Non profit and for profit institutions as well as foreign and domestic institutions are eligible to apply.

A copy of the complete RFA describing the research goals and scope, the review criteria and the method of applying can be obtained by contacting Dr. John Cole, Program Director, RNA Virus Studies II, Biological Carcinogenesis Branch, Div. of Cancer Etiology, NCI, Executive Plaza North Rm 540, Bethesda, MD 20892; phone 301/496-1718.