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UPTON EXPLAINS NEW NCI SYSTEM: GRANTS FUNDED "ACROSS THE BOARD" STRICTLY BY PRIORITY SCORE

The new system of allocating funds to NCI programs with emphasis on more support for grants is not based on dividing money among the NCI divisions nor will it pay too much attention to balanced support to individual programs.

Program areas instead will receive support largely on the quality of grant applications as determined by peer review. For example, a certain amount of money will be set aside for new and competing renewal tra-

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In Brief

NCI DELAYS RELEASE OF LAETRILE STUDY RESULT; DCRRC'S NEW NAME: DIV. OF EXTRAMURAL AFFAIRS

NCI'S ANALYSIS of cancer patients treated with laetrile has been completed. A committee chaired by Deputy Director Guy Newell reviewed the records of patients determined "evaluable" to help decide if there is enough evidence to support a clinical trial. The committee's evidence will be submitted to the Div. of Cancer Treatment for processing through its "decision network" which evaluates all drug candidates for clinical trial. The committee's findings will be published in the *New England Journal of Medicine* the first week in September. Newell said the decision to publish in a professional journal rather than through general news releases or press conference was based on the feeling that physicians would give greater credence to the report. The Journal agreed to publish the report within two weeks, a fast turn-around time for a magazine, provided NCI withheld the contents from other publications until the Journal's publication date. Newell refused to say whether the study came up with any evidence that laetrile helped any patient: "That was part of the deal with the New England Journal," he said. . . .

NEW NAME for NCI's Div. of Cancer Research Resources & Centers unofficially is "Div. of Extramural Affairs." The name hasn't yet been formally adopted, but since the old name no longer is appropriate and is misleading, the staff is using the new one; ***The Cancer Letter*** will do likewise. The division, headed by Thomas King, now has responsibility for review and evaluation of NCI grants and contracts; review committees have been transferred from the program divisions to DEA. . . .

"BODY IMAGE, Self Esteem, and Sexuality in Cancer Patients" will be the theme of the 14th annual San Francisco Cancer Symposium March 23-24, sponsored by the West Coast Cancer Foundation. Contact Jerome Vaeth, WCCF, 50 Francisco St. Suite 200, San Francisco 94133, phone 415-981-4590. . . . **"RADIATION BIOLOGY** in Cancer Research is the topic of the 32nd annual Symposium on Fundamental Cancer Research in Houston Feb. 27-March 2, sponsored by M.D. Anderson Hospital. Contact Steve Stuyck, MDA, Houston 77030, phone 713-792-3030.

SELECTIVE SUPPORT OF GRANTS BY NCI DIVISIONS WILL NOT BE PERMITTED

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ditional, investigator initiated (R01) grants. Separate amounts will not be earmarked for immunology, biology, etc. The grants will be funded strictly according to priority scores.

It is possible that in a particular year a disproportionate share of the best science would be concentrated in one program area to the extent that others would be shut out or severely limited. NCI Director Arthur Upton does not expect that to happen, however.

"If one program area does become more active, we can determine then how to deal with it," Upton told *The Cancer Letter.* "There will be ways to manage. We may have to decide to allow for disparities."

Here's how Upton explained budget development will work under the new system:

"We will constantly be looking at areas of need and prepare to support those areas. As we approach each year, we know what our fixed expenses will be —noncompeting grants, contract obligations, intramural programs, overhead. We will then take our discretionary money and, with advice from the National Cancer Advisory Board, determine how much will go into new grants. We will make a policy determination to support new grant applications down to such and such a level. That level may permit paying 50% of approved grants, or 40%. We may decide that the level would be higher for one grant mechanism, such as R01s, than for another, for instance program projects.

"That percentage would apply across the board to all R01s," Upton emphasized. No effort will be made to selectively support grants which division or program directors think better fit their needs.

"Then, after estimating the amount we will need to set aside for grants, we will have some left over that can be used in other ways, principally, new contracts," Upton said. "Based on advice from the Board, the boards of scientific counselors and program directors, we will allocate that residual budget and assign it to the divisions."

The budget process will start with development of funding plans by each division director at the end of each study section cycle. Those plans will be based on the results of study section reviews—division directors will know how each grant was scored and can estimate how much money will be required to fund down to each level.

"I'll sit down with the division directors then and we'll work out a funding plan for the entire institute." This process will be carried out three times a year, after reach of the three study section cycles.

What will happen if the pay line stops before it gets to a grant that a division or program director insists is one he thinks he absolutely has to have?

"He can take some money from his contract fund and use it to pay the grant," Upton said. "We predicted that would happen and in fact it already has happened."

Div. of Cancer Biology & Diagnosis Director Alan Rabson recently took over the grant portfolios in his program areas from the Div. of Cancer Research Resources & Centers (now Div. of Extramural Affairs), which had been administering most NCI grants. Barbara Sanford, who came to DCBD from DEA as chief of extramural immunology research, and David Kiszkiss, her assistant, pointed out to Rabson that there were 23 high quality immunology grants that DEA was unable to fund. Rabson and William Terry, who headed what was before the reorganization the combined extramural/intramural Immunology Program in DCBD, agreed to take $1.379 million which had been intended for immunobiology contracts and used it to pay the 23 grants.

Brian Kimes, who had been program director for tumor biology in DCRRC, came up with nine grants in that area which DCRRC had been unable to pay. Rabson found $600,000 from among his other contract programs and funded the nine.

Sanford has since left NCI for Harvard. Kimes will be responsible for extramural tumor biology research in DCBD, Kiszkiss will head basic immunology and Nicholas Rogentine, long associated with intramural clinical immunology, will head the extramural clinical immunology program.

Upton, referring to the switch of funds in DCBD, said, "That was one of the joys of the reorganization, seeing it work. But we won't permit the opposite to happen. Division directors will not be permitted to transfer grant funds to contracts, although I suppose it could happen if there is a very urgent need for a project that could only be funded by a contract. But I don't think that is likely."

The whole point of the reorganization, Upton said, was to "try to develop a little better system, one with more flexibility."

He feels the reorganization has corrected a bad situation within NCI, in which the divisions with responsibilities for achieving program objectives had access for the most part only to the contract mechanism. While contracts were suitable for much of the research the program divisions supported, they were generally not suitable for basic research.

"My chief concern was that we not continue supporting basic research through contracts," Upton said. "RFPs written for basic research were artificial and bore no resemblance to a proper contract. I think we all agreed it should stop and it has stopped."

Upton repeated that contracts will continue to be used "where valid and necessary." Clinical trials is one of those areas. "In that case, it is more efficient, there is a clear definition of goals and strategy, and

NCI has responsibility for coordinating the effort—that is an ideal use of the contract mechanism."

Others include the Bioassay Program, "and I suspect other areas of carcinogenesis research," drug development, instrument development, and of course resource procurement. "I won't exclude the grant mechanism from those areas, but contracts will continue to be predominant, I believe."

Upton said he did not "want to go from one extreme to another and wind up with program coordination lacking. We may even have some areas in basic science which will require use of contracts, if our advisory groups feel an area needs to be stimulated."

The Div. of Cancer Control & Rehabilitation will be exempt from the prospect of seeing its grants funds usurped by grants with higher priority scores in other divisions. Congress earmarks cancer control funds in the appropriations bills. Upton said DCCR Director Diane Fink will have to present a funding plan in the same manner as the other division directors, however.

THREE LEVELS OF GRANT STIMULATION — DISCUSSION, ANNOUNCEMENTS, RFAs

A discussion at a recent meeting of the Diagnostic Research Advisory Group shed more light on how NCI expects to maintain some degree of "stimulation" in program areas while still encouraging investigator initiated research. Methods for stimulating grant applications in specific areas have been used in varying degrees by DCRRC program leaders for many years. With the divisions now using grants and reducing their use of contracts, the scientific community can expect to see a considerable increase in use of grant stimulating methods by NCI.

DRAG is an advisory group to the Div. of Cancer Biology & Diagnosis. Division Director Alan Rabson told group members that stimulation of grant applications in specific program areas is accomplished essentially at three levels:

1. Informal discussions among investigators and NCI staff.

2. Program announcements, "an expression of our interest in specific areas but without earmarking of funds."

3. Request for applications—RFA, the grant equivalent of an RFP. The RFA is a formal announcement of proposed studies, and funds are earmarked for those studies (but proposals responding to an RFA will be funded only if they compete successfully with grant applications in other areas).

The RFP is a request for proposals for contracts. Rabson emphasized contracts would be used primarily for resource procurement, clinical trials and instrument and drug development.

Most grant applications are reviewed by the NIH Div. of Research Grants study sections. DRAG Co-chairman Harry Mellins expressed concern on how diagnosis grants would fare in that review.

"I was a member of the old radiology study section," Mellins said. "They would look at most of these projects and say, 'This is not research, it's not basic science,' and give them terrible grades. Nothing practical would get out. I saw lots of things torpedoed that way."

"I hope the radiology study section is not as negative as when you were on it," Rabson said. "Diagnosis proposals are coming through, and many are eminently practical. The contract mechanism is still appropriate for instrument development. This committee can advise us on RFP development, and those proposals will be reviewed in DCRRC (now Div. of Extramural Affairs)."

Rabson said he hoped DRAG members "will come up with ideas for RFAs in diagnosis, and let us see if the DRG study sections are reasonable. If they are not, we'll have to do something else. If we feel a study section is not adequate, we can go to DRG and ask that expertise be added to it, or ask that an ad hoc committee be formed, or we can ask for a review by NCI's review body."

Robert Woolridge, who headed detection and diagnosis in DCRRC, is the program director in the Diagnosis Branch of DCBD. Woolridge presented a breakdown of the $4 million worth of diagnosis grants he brought with him in the reorganization:

Ongoing Diagnosis Research Grants by Discipline and Total Dollars

Program Discipline	No. of Grants	Total Dollars By Discipline
Radiology	13	$936,616
Biochemical	14	683,473
Immunodiagnosis	8	498,292
Biophysical	7	585,145
Radiopharmaceutical	6	385,993
Pathology	5	281,784
Cytology	4	600,365
Multidiscipline	1	120,882
Total	58	$4,092,550

Ongoing Diagnosis Research Grants by Organ Site and Total Dollars

Organ Site	Grants	Total Dollars
Multiple Sites	22	$1,516,308
Breast	14	1,021,745
Blood	7	327,726
Lung	3	132,768
Thyroid	2	133,363
Pituitary	1	65,490
Cervix/Uterus	3	392,497
Ocular	2	178,624
Colon	2	153,944
Prostate	1	16,740
Bone	1	152,345
Total	58	$4,092,550

The National Cancer Advisory Board at its May meeting approved payment of nine top priority diagnosis research grants, Woolridge reported. These were (by discipline and site):

Radiopharmaceutical, ocular, $64,519; radiopharmaceutical, multiple sites, $25,000; immunodiagnosis, prostate, $25,000; immunodiagnosis, colon, $43,774; biochemical, pituitary, $46,644; biochemical, breast, $25,167; biochemical, bone, $104,627; pathology, breast, $45,334; and cytology, multiple sites, $46,508.

Those total $426,573 in direct costs; indirect costs are still being negotiated, probably will be about $165,000.

Woolridge pointed out that those nine grants ranged in priority score from 128 to 243. There were 12 others which were not funded which were within 38 points of those that were. The 12 would have totaled $252,000 in direct costs. Woolridge said he would like to select five from those 12 and pay them, at a direct cost of $175,000, if the money can be found.

DRG has suggested to NIH institutes that they may vary as much as 40 points in funding according to priority scores—in other words, skip over grants of higher priority and drop as low as 40 points to pick up grants they feel are more important or better fit program needs.

NCI has skipped over grants to pay those with lower scores, but usually in the 10-15 point range, and never as low as 40. Written justification is required when that is done.

"If the diagnosis program is to remain viable," Woolridge told DRAG, "we need more flexibility in awarding grants, and we need more money."

William Pomerance, chief of the Diagnosis Branch and DRAG co-chairman, said, "Fundamentally, the money given to this branch will be made predominantly, almost exclusively, on the basis of priority scores. I don't think any other mechanism is possible. . . . Originally, when we started this group, we were told there would be 1,500 detection and diagnosis grants. We have 58 grants. What happened to the rest of the 1,500? . . . Detection and diagnosis has never received the attention they deserve. Next to prevention, this area has the most to offer."

UPTON LEANING TOWARD NEW DIVISION FOR CENTERS, ORGAN SITES, TRAINING

Finding permanent homes within NCI for four important programs is the major bit of unfinished reorganization business, and Director Arthur Upton is leaning heavily toward creating a new division to house all four.

A Div. of Resources (its probable name) would take in the Cancer Centers Program (now administratively located in Upton's office after it was removed from the Div. of Cancer Research Resources & Centers); the Organ Site Program, Facilities (construction), and the Training & Education Program.

Organ Site, Facilities and Training & Education are still located in the Div. of Extramural Affairs (formerly DCRRC). They will have to be moved if Upton is to follow through on his intention of separating program responsibilities from review.

Other programs formerly administered by DCRRC, all funded with grants, have been distributed among the other NCI divisions, including program projects.

Upton told ***The Cancer Letter*** he is considering only two options for the remaining programs, if they are to be moved: One is to create a new Div. of Resources, which ultimately would include centers; the other would be to parcel them out to the existing divisions.

"Parceling them would be difficult, especially Organ Site," Upton said. "None of them are predominantly treatment, etiology or what have you. The most logical answer would be to create a new division."

He hedged somewhat. "The fact that something seems to be the most obvious solution doesn't always mean it will happen," he said. A year in the federal bureaucracy has taught Upton something about how it works.

Another possibility would be to leave everything where it is for a while, "to buy time and catch our breath," Upton said. "But I think we will want a decision soon. The reorganization has moved along, and people working in those programs are jumpy. We really should get them off the hook soon."

Meanwhile, the Centers Program is still wrestling with the problem of what (if anything) will be done about revision of core grant guidelines. It has now been ayear since the program staff dropped its revision bombshell, recommending phaseout of core funds for staff investigator salaries and shared resources and transferring most of that money to R01 grants.

After the unanimous negative reaction that proposal brought about from center directors, who were supported by the National Cancer Advisory Board, program staff offered as an alternative the development of some formula to place a ceiling on core grants. Before that effort got anywhere, the reorganization came along, the program was moved to Upton's office and William Terry was named to head it.

Terry told ***The Cancer Letter*** last week that "we are trying to back off" from the concept of establishing ceilings, although "we are trying to see if there are formulas that are equitable. There are a variety of options."

Any changes in the guidelines will be made only after full consultation and participation by the centers, Terry said. "We intend to involve the extramural community in this process, center directors and others."

There will be no NCI-sponsored meeting of center

directors this fall, as there has been for the past two years. Instead, small groups, including representatives of the Assn. of American Cancer Institutes and AACI committees, will be convened to discuss specific problems.

Terry said that while he hopes decisions on changes in guidelines can be made "as soon as possible," implementation is at least a year away.

HEW DENIES DOLE CHARGE, ADMITS DELAY, SAYS PATENTS WILL BE CLEARED IN 60 DAYS

The HEW general counsel has denied charges by Sen. Robert Dole that he is "suppressing critical life-saving drugs and medical devices" by refusing to approve patent requests submitted by NIH grantees and contractors (*The Cancer Letter,* Aug. 11).

"Nor has the department reversed its present flexible policy of permitting universities and medical research institutes to collaborate appropriately with the private sector in the further development of inventions initiated with NIH funds," said Peter Libassi, the HEW general counsel.

Under that policy, HEW determines on a case by case basis the merits of assigning to universities and research institutes the patent rights for inventions developed with NIH funds.

Libassi acknowledged, however, that HEW has "altered its procedures for making this determination in order to further assure that the public interest is served by the assignment of patent rights. We must make sure that assignment of patent rights to universities and research institutes does not stifle competition in the private sector in those cases where competition can bring the fruits of research to the public faster and more economically," Libassi said.

Prior to August 1977, patent rights determinations were referred to the Patent Branch of the Business & Administrative Law Div. of the HEW general counsel's office for initial evaluation. That branch would seek comments from the appropriate institutes of NIH and then prepare a recommendation and a determination for the signature of the assistant secretary for health. These were forwarded to the assistant secretary without additional review. In august 1977, the procedure was changed to require that all such determinations be reviewed by the assistant general counsel for business and administrative law, before being forwarded to the assistant secretary.

"Since that time 50 determinations have been sent from the Patent Branch to the assistant general counsel," Libassi said. "Of these 28 are still pending in that office, half of which have been received within the past four months. The review in that office entails a careful review of the file and, on occasion, seeking additional information. Determinations that appear to be sound on the initial review are forwarded to the assistant secretary for health. Others are held for further study.

"We have been aware for some time that the process of establishing this new, more careful review has resulted in a backlog of cases, our our office of general counsel staff has been making a concerted effort to eliminate it. Pursuant to my directive, all cases referred to the assistant general counsel will be processed within 60 days. If there are any delays beyond 60 days, I am to be notified personally.

"The problem is only temporary, and we fully expect that our review of patent determinations will be current within the very near future."

ADVISORY GROUP, OTHER CANCER MEETINGS FOR SEPTEMBER, OCTOBER

Prostatic Cancer Review Committee—Sept. 6, Roswell Park Memorial Institute, 8:30 a.m., open.

NCI-EORTC Symposium on New Drugs in Cancer Therapy—Sept. 7-8, Brussels.

Large Bowel Cancer Review Committee—Sept. 7-8, Houston Prudential Bldg, open Sept. 7, 7:30 p.m.—10 p.m.

New Leads in Cancer Therapeutics—Sept. 8, Roswell Park continuing education in oncology, contact Claudia Lee.

National Conference on Care of the Child with Cancer—Sept. 11-13, Boston, Sheraton Boston Hotel. Contact S.L. Arje, American Cancer Society, 777 Third Ave., New York 10017.

Cancer & Nutrition Scientific Review Committee—Sept. 11, NIH Bldg 31 Room 8, open 8:30—9 a.m.

Biometry & Epidemiology Contract Review Committee—Sept. 11-13, Landow Room C419, open Sept. 11, 8 p.m.—11 p.m.

Clinical Oncology Study Course—Sept. 12-16, London.

Seminar, National Capital Area Branch, American Assn. for Laboratory Animal Science—Sept. 13-14, Cockeysville, Md.

16th Meeting of the Nuclear Medicine Society—Sept. 13-16, Madrid.

Second International Conference of Nuclear Medicine & Biology—Sept. 17-21, Washington D.C.

Virus Cancer Program Scientific Review Committee—Sept. 18, Landow Bldg Room C418, open 9—9:30 a.m.

State of the Art Conference on Lung Cancer Screening—Sept. 18-20, Sheraton Inn, Reston, Va., 9 a.m. each day, all open.

National Cancer Advisory Board—Sept. 18-19, NIH Bldg 31 Room 6, open Sept. 18, 1 p.m.—adjournment; Sept. 19, open 1 p.m.—adjournment.

NCAB Subcommittee on Special Actions—Sept. 18, NIH Bldg 31 Room 6, 9 a.m.—noon, closed.

NCAB Subcommittee on Centers—Sept. 18, NIH Bldg 31 Room 11A10, 8:30—10 a.m., open and closed.

NCAB Subcommittee on Planning & Budget—Sept. 18, NIH Bldg 31 Room 11A10, 10:30 a.m.—noon, open.

NCAB Subcommittee on Carcinogenesis—Sept. 18, NIH Bldg 31 Room 6, 7:30 p.m., open.

NCI Conference on Cis-Platinum & Testicular Cancer—Sept. 21-22, Shoreham Americana Hotel, Washington D.C.

Fifth UICC Training Course in Cancer Research—Sept. 21-Oct. 3, Sao Paulo, Brazil.

Bladder Cancer Review Committee—Sept. 21, Logan Airport Hilton Hotel, Boston, open 8:30—9:30 a.m.

Workshop on Graduate Education in Pediatric Hematology-Oncology—Sept. 26-27, Linden Hill Hotel, Bethesda, Md.

Cancer Research Manpower Review Committee—Sept. 27-28, NIH Bldg 31 Room 8, open Sept. 28, 9—9:30 a.m.; subcommittee on cancer etiology & prevention, Sept. 27, NIH Bldg 31 Room 4, closed.

International Congress on Hormones & Cancer—Oct. 4-6, Universita Cattolica del Sacro Cuore, Rome

XIIth International Cancer Congress—Oct. 5-11, Buenos Aires.

Cancer Update—Symposium for Nurses and Other Health Professionals—Oct. 11-13, Birmingham, Ala.

International Symposium on Pituitary Microadenomas– Oct. 12-14, Milan.
Div. of Cancer Treatment Board of Scientific Counselors– Oct. 16-17, NIH Bldg 31 Room 10, 8:30 a.m. both days, open.
Div. of Cancer Cause & Prevention Board of Scientific Counselors– Oct. 17-18, NIH Bldg 31 Room 11A10, 9 a.m., both days, open.
Virus Cancer Program Scientific Review Committee–Oct. 20, Landow Conference Room A, open 9–9:30 a.m.
Workshop on Alcohol & Cancer–Oct. 23-24, NIH Bldg 31 Room 10, 9 a.m. both days, open.
Adjuvant Therapy in Solid Tumors–Oct. 25-26, Roswell Park continuing education in oncology.

Clearinghouse on Environmental Carcinogens Data Evaluation/Risk Assessment Subgroup–Oct. 26, Landow Conference Room A, 9 a.m., open.
Div. of Cancer Biology & Diagnosis Board of Scientific Counselors– Oct. 27-28, NIH Bldg 31 Room 11A10, 9 a.m., both days, open.
Third Chemotherapy Foundation Symposium–Oct. 27-28, Barbizon Plaza, New York City.
Cancer Special Programs Advisory Committee– Oct. 30-31, NIH Bldg 31 Room 7, open Oct. 30 9–10:30 a.m.
26th Annual Meeting American Society of Cytology–Nov. 7-11, Bal Harbour, Miami Beach.
NCI-Committee for Radiation Oncology Studies Conference on Combined Modalities–Chemotherapy & Radiotherapy– Nov. 15-18, Hilton Head Island, S.C.
National Cancer Advisory Board–Nov. 20-22, NIH Bldg 31 Room 6.

NCAB TO HEAR REPORT ON CONSTRUCTION NEED SURVEY, USE OF DRUGS FOR PAIN

A report on a survey of Cancer Program construction needs will be made to the National Cancer Advisory Board at its meeting Sept. 18. G. Denman Hammond, chairman of the Board's Construction Subcommittee, will make the report.

In a preliminary report to the Board last May, Hammond said his subcommittee was considering making a recommendation that NCI budget $40 million a year for four years for construction (it was $12 million in FY 1978, probably will be the same in 1979. The preliminary budget for 1980 has $16 million for construction. Peak year of NCI support for construction was 1972, with $47 million.)

Hammond has pointed out that construction has been a major target of budget cuts over the last two-three years with the severe limitation on NCI's growth in appropriations. Construction cuts were made with little knowledge of what the actual facilities requirements would be, especially those mandated for biohazard control and animal facility upgrading.

Also on the Board's September agenda will be a report by Seymour Perry, special assistant to NIH Director Donald Fredrickson, on use of drugs for pain and discomfort.

In addition to other subcommittee reports, William Shingleton will present another review of the Div. of Cancer Control & Rehabilitation activities; Joseph Fraumeni, chief of NCI's Environmental Epidemiology Branch, will report on the Epidemiology Working Group; and NCI Deputy Director Guy Newell will discuss the Nutrition Program.

Board subcommittees will meet during the morning of Sept. 18 and the Subcommittee on Carcinogenesis will meet that evening. The Board will be in closed session the morning of Sept. 19 for review and approval of grants.

NCI CONTRACT AWARDS

Title: Breast Cancer Detection Demonstration Project, renewal
Contractor: Vanderbilt Univ., $239,612.

Title: Analysis of samples from a dietary fiber study
Contractor: Cornell Univ., $20,998.

Title: Animal morbidity/mortality survey of colleges of veterinary medicine in North America
Contractor: Assn. of Veterinary Medical Data Program Participants, $108,000.

Title: Cycasin and Macrozamin as potential environmental carcinogens
Contractor: Univ. of Hawaii, $36,803.

Title: Statistical support for the Gastrointestinal Tumor Study Group
Contractor: EMMES Corp., $809,620.

Title: Extension of phase-out of statistical support for the Gastrointestinal Tumor Study Group
Contractor: Frontier Science & Technology Research Foundation, $63,000.

Title: Studies on environmental cancer utilizing data from the Portland Prepaid Health Plan
Contractor: Kaiser Foundation Research Institute, Portland, $153,049.

Title: Studies on environmental cancer utilizing data from the Oakland Prepaid Health Plan
Contractor: Kaiser Foundation Research Institute, Oakland, $116,420.

Title: Isolation of xenotrophic viruses, continuation
Contractor: Univ. of California (San Francisco), $49,740.

Title: Resource for cancer epidemiology for San Francisco Bay Area, continuation
Contractor: State of CAlifornia Dept. of Health, $691,122.

Title: Breast Cancer Detection Demonstration Project, renewal
Contractor: Rhode Island Hospital, $231,186.

The Cancer Letter –*Editor* JERRY D. BOYD

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