THE

# NEWSLETTER

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Phone 703-471-9695

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# NATIONAL TV ATTACK ON CANCER PROGRAM GETS RESPONSE FROM SCHMIDT; SOME NCAB MEMBERS SIDE WITH KORNBERG

Has the cancer program been expanded and funded at the expense of basic research?

In a speech delivered earlier this month at a meeting of the American Society of Biological Chemists, Cancer Panel Chairman Benno Schmidt addressed the issue of support (or lack of it) for biomedical research not in the cancer and heart fields:

"We cannot be sure that the cancer effort has been the cause of these other institutes (at NIH) receiving less, but it is difficult to prove the contrary when the cuts have, in fact, been made," Schmidt said.

Schmidt's speech followed by a week the nationwide television airing of an NBC news special in which Nobel Laureates Arthur Kornberg of Stanford and Salvador Luria of MIT and others charged that basic research is paying the bill for the cancer program. Members of the National Cancer Advisory Board last week agreed, at least in part, with their criticism.

The transcript of the program, entitled "The War Within the War on (Continued to page 2)

In Brief

## RHOADS RENAMED CANCER ADVISORY BOARD CHAIRMAN; L-B'S FREDERICK CONTRACT RENEWED FOR \$12 MILLION

JONATHAN RHOADS has been reappointed chairman of the National Cancer Advisory Board by President Nixon. The board has exerted extensive influence over development of the National Cancer Program and over NCI's operations under Rhoads' leadership. He has been a popular chairman, runs NCAB meetings with wit and patience . . . LIT-TON-BIONETICS' contract to run the Frederick Cancer Research Center for another year has been renewed, with the estimated amount involved now more than \$12 million. This does not include Litton's fee which could be in the \$1 million neighborhood. The contract for the vear just ended exceeded \$10 million; Litton's fee for the first half of the year was \$328,000, and the amount available for the fee in the second half was \$468,000. The company has been getting about 80% of the available fee money . . . . ANTI-SMOKING resolution that NCAB approved and sent to the President last Fall, and which the White House ignored, was adopted again by the board last week. This time, Rhoads will send it himself to appropriate members of Congeress and again to the President. The resolution flatly states that cigarette cancer is the "leading cause of the most prominent form of cancer" and thus responsible for the deaths of 70,000 Americans a year. It calls on the President to support and Congress to enact legislation needed by federal regulatory agencies to "reduce health hazards from smoking cigarettes" - in other words, to establish maximum tar and nicotine levels . . . .



### BASIC SCIENCE GETTING MORE NOW FROM NCI THAN ENTIRE CANCER PROGRAM IN 1970

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Cancer," included the following comments:

William Peck, Univ. of Rochester — "I think that the period known as the War on Cancer has been accompanied by a significant decrease in the support of basic biomedical research."

Kornberg — "Unfortunately funds have been diverted from acquiring basic knowledge, from doing basic research, to working on cancer, per se, and so there has actually been a curtailment, in some cases abolition of research programs in basic research, and training programs for young people to go into basic research in order to support this war on cancer."

Luria - "It is a real misunderstanding of the nature of research. I think it shows, at the moment, the same kind of cultural gap that has been mentioned as existing between this administration and all of the intellectual establishment in this country."

Sol Spiegelman, Columbia Univ. and a former member of the National Cancer Advisory Board -- "What has in fact happened is that as the cancer monies have increased, the funds for the basic biological disciplines, the research in those areas have clearly decreased. The net effect is that you are increasing one at the expense of the other, and this is a real disaster. Cancer research cannot flourish in the midst of a biological desert."

Schmidt, in his speech to the chemists, tried to point out that the cancer program actually has resulted in an increase of money for basic research, at least among programs supported by NCI.

In 1970, Schmidt said, "federal expenditures on cancer research were \$180 million. In 1971, while the cancer act was under discussion in Congress, these expenditures were increased to \$232 million. In 1972, the first year after the passage of the act, the National Cancer Institute received \$378 million for the cancer program. In 1973, the amount was \$432 million, and in the current fiscal year of 1974, expenditures will be \$589 million.

"During that same period, grant-supported research – and I am talking just about grant-support research, not other grant-supported activities such as construction and training – but grant-supported research went from \$72 million in 1970 to \$89 million in 1971; \$120 million in 1972; \$160 million in 1973; and \$217.7 million in 1974. Thus, we are funding this year more grant-supported research than the entire NCI budget in any year prior to 1971. The \$217 million being spent this year on research grants compares with \$95 million being spent on research contracts....

"This \$217 million program supports a total of 2,019 grants in 367 institutions. Slightly over 50% of

the cancer grants approved by the NIH study sections are being funded. Thus, the cancer program is not deemphasizing investigator-initiated grant-supported fundamental research receiving NIH study section review."

Schmidt acknowledged that cuts have been made outside NCI, however:

"Although I have no question that the cancer institute is supporting more and better basic research than it has ever supported in the past, I am deeply concerned about the cuts in the research budgets of the other institutes of NIH supporting basic biomedical research. In particular, this concern relates to the Institutes of General Medical Sciences, Allergy & Infectious Diseases, Arthritis & Metabolic Diseases, and Neurological Diseases.

"Neither the cancer program nor biomedical research generally can thrive if these institutes are not healthy. At the time we were urging the Administration and the Congress to make a greater effort in cancer, we were very explicit in the position that the increased cancer effort should not be at the expense of other biomedical research."

Schmidt brought the issue up at the NCAB meeting, referring to a remark attributed to Kornberg in news stories (but not in the transcript) that biomedical research will be set back at least a full generation by the cancer program.

"What he's talking about is the situation at the other institutes, not NCI," Schmidt said.

Harold Amos, board member from Harvard, sided with Kornberg. "He and the others are right," Amos said. "A person with a pure idea, since 1971, has less chance of getting a good review and of being funded than he would have before 1971."

"The issue is more fundamental than that," commented board member Philippe Shubik of Eppley Institute. "It has nothing to do with numbers. It has to do with the atmosphere. I'm sorry to see it, but the National Cancer Program has changed the atmosphere. Kornberg and many others feel this very strongly. We should take them seriously. Our money is diffused (through centers and the control programs). There is no real drive to get top people into fundamental research. Something is fundamentally wrong."

"No one takes these complaints more seriously than I do," Schmidt replied. "But the way you support investigator-initiated research is with dollars. If these people aren't impressed by the amount of money the cancer program is putting into basic research, I can guarantee you the converse would arouse them. Cut back on their funds and they'll let you know it.

"The fact that you see money going into control or organ site projects doesn't mean that we are not supporting basic science. The real issues are these: Get the training program back on track, and keep the other institutes from being cut."

## NCAB TO MONITOR VIRUS PROGRAM; NCI ANSWERS ZINDER REPORT CRITICISMS

The National Cancer Advisory Board will continue to monitor NCI's Virus Cancer Program with the appointment of a subcommittee headed by board member Harold Amos to oversee the program and report on it periodically.

Board Chairman Jonathan Rhoads had asked Amos and members Frederick Seitz, Irving London and Howard Skipper to check up on implementation of the Zinder report, which made extensive recommendations for changes in the virus program. The board had adopted those recommendations as its policy.

Amos reported last week on two meetings his subcommittee had had with the program leaders and suggested it was too soon to get more than just a brief overview of how the Zinder recommendations were being handled. Rhoads then asked Amos and his subcommittee to continue for at least a year to observe the operation of the program.

James Peters, whose Cancer Cause & Prevention Division operates the Virus Cancer Program, presented the division's response to the Zinder report. The response was prepared under the direction of James Moloney, chief of the program. The response in part follows:

"In its analysis of the Virus Cancer Program, the Zinder Committee concluded that research in viral oncology deserved continuing support. The basic issue was whether the contract is the best mechanism for providing such support. The FY 1973 expenditure by NCI of \$42 million funding 131 contracts was contrasted with \$7 million in NCI support of about 100 grants. Actually, of the \$119.5 million in FY 1972 NIH extramural grants, \$58 million supported 1,090 grants covering different areas of cancer-related research. The 131 contracts within the Virus Cancer Program support approximately 600 professionals and 230 pre- and post-doctoral trainees which, when combined with technical support, total 2,290 individuals whose combined activities resulted in 1,183 publications in FY 1972. Therefore, we question whether the overall opportunities for the development of fundamental research observations in science are as limited by the additional support provided to the scientific community by the Virus Cancer Program as the committee implies.

"The committee recognized the contributions of the Virus Cancer Program in screening, production of research reagents, and coordination and information flow between investigators which are not features of the grant mechanism. What is not recognized is the tremendous amount of basic research supported by the Virus Cancer Program that make these high-quality reagents available to investigators. However, the committee believes that a serious and destructive aspect of the Virus Cancer Program is its assumption that knowledge of the virology and natural history of tumor virus was sufficient to achieve control of virus-induced cancer and that most basic information was on hand to achieve a definitive result in a relatively short period. The fact is that the Virus Cancer Program has never considered the virus-cancer problem to be one which would be readily resolved, and the breadth of its overall activities across different research specialties shows cognizance of the need for such contributions converging on the major objectives.

"The Virus Cancer Program is and must continue to be an 'in addition to' rather than an 'instead of' program. The basic philosophy underlying the program was to make possible the expeditious development of significant observations generated within the scientific community to the benefit of the public and not to compromise the basic research contributing to an understanding of neoplastic transformation resulting from the imagination and work of the best scientists under the extramural grants program or other sources of support.

"The Virus Cancer Program is obliged to use the contract mechanism to fund its collaborative program. This has required yearly review for renewal of projects which are regularly monitored through progress reports submitted tri-annually, and more recently semi-annually, by the contractor for perusal by in-house and working group members. Reviewers are, therefore, well aware of essential details of the progress made under the project in contrast to the position of study section members who are primarily concerned with the evaluation of new efforts. This does alter the nature of the review. Program has emphasized the acquisition of and association of the best scientists available for research who will contribute to program objectives rather than development of research for its own sake. Each contract receives review by two to three review groups followed by approval by the Institute Director, his designates, and higher authority as required. Under this system, the power of individual segment chairmen is minimal.

"The Virus Cancer Program is primarily an in-house operation in the sense that it is the administrative focus for a collaborative program of research. Any contract support for in-house investigations receives the same reviews accorded any contract project and the in-house investigator maintains liaison through the contractor's principal investigator.

"The committee contends that the segment chairmen come from a narrow section of the scientific community and that working group members are chosen to reflect a similarly narrow range of expertise. Moreover, it was stated that segment chairmen were not originally selected on their ability to run large contract programs. The segment chairmen (appointed by the NCI Director) are chosen both for

their ability to manage complex research programs and for their scientific knowledge in viral oncology. The working groups are composed of individuals drawn from a wide variety of scientific disciplines to obtain as much input as possible from a membership also cognizant of virological aspects of oncogenesis. The range of expertise so provided is not narrow, but it is attuned to virological matters since the activities of the Virus Cancer Program are restricted to problems of virus relationships to cancer.

"We recognize that for some segments names no longer reflect their programmatic theme. The chairman of the Virus Cancer Program is considering rectification of this situation. Any specific suggestions for restructuring would be welcome.

Contract projects are not assigned to a segment on the basis of a particular personal relationship between a principal investigator and a segment chairman. Investigators in the field might tend to favor a particular segment because the research activities which it administrates are similar to their own. However, it must be emphasized that 14 reviewers vote independently to establish the relevance, priority and need for new proposals and renewals of on-going projects, each of which is rated by secret ballot. This policy obviates personal bias of any individual member directed for or against a project or its Principal Investigator. Furthermore, the proceedings of subsequent working group technical reviews are recorded for each project and are subjected to detailed scrutiny by officials authorized to initiate contract proceedings.

The committee report states that reviews for scientific excellence performed by working groups are perfunctory. We wish to stress that at present these working groups are composed of a plurality of non-government scientists who have the power to recommend initiation or rejection of new projects, changes of the workscope of existing contracts, increase or decrease of funding levels, and termination of contracts. In addition, the members are encouraged to suggest new areas for profitable investigation. The Virus Cancer Program has looked to working groups to perform these functions. The problems which the committee has associated with present review practice will be eliminated by two actions of the chairman, Virus Cancer Program. These include:

"— The chartering of an advisory committee composed of non-program scientists to provide broad directions on allocation of resources, areas for expansion of research and development of new leads and opportunities, and the application of research findings to the control of cancer in man.

"— The chartering of a Virus Cancer Program
Scientific Review Committee to review individual
proposals for scientific excellence and technical competence. The group will consist of 60 member, both
government and non-government scientists, selected
on the basis of their outstanding individual qualifications and recognized expertise in the field of
microbiology, molecular biology, immunology, biochemistry, and virology as they relate to cancer. A
quorum of eight members, more than one-half of
whom are outside NIH must be present at each meeting to review proposals.

"The recommendations of the committee call for a new approach to fund the scientist. At present, the services and products necessary to accomplish the objectives of HEW programs are obtained from inhouse resources, through other government agencies, under a grant, or by contract. The Virus Cancer Program was initiated under a mandate to NCI by Congress to determine whether viruses were etiologically involved in human cancer and to develop some means for prevention or control of such cancers.

"Since the grant is an agreement by the Government to support the exploration of health-related research of the investigator's own choice, whereas the contract is the instrument whereby research and material specified by the government is procured, the Virus Cancer Program has authority to pursue its objectives only by contracting with non-government institutions, not with individual scientists. The recommendations by the committee overlook the legal obligations of government and contractor as parties in a contract and center on an approach to an integrated program of research directed by non-governmental scientists at large.

"The contention of the committee that the growth and management of the Virus Cancer Program from inside government was a mistake neglects the fact that specific regulations govern contract procurement."

### **SOLE SOURCE**

Proposals listed here are for information purposes only. RFPs are not available.

Title: Continuation of preclinical bone marrow transplantation and immunotherapy studies and canine leukocyte separation studies Contractor: Hazelton Laboratories, Vienna, Va.

### **CONTRACT AWARDS**

Title: Continued operation and maintenance of rodent production center

Contractor: Charles River Breeding Laboratories, North Wilmington, Mass., \$112,424