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RESEARCH EDUCATION CONTROL

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NCI CONSIDERING COMBINING SUPPORT, CONTROL CORE GRANTS; DIRECTORS REJECT TWO GRANTS, ONE REVIEW

Directors of comprehensive cancer centers generally agreed that cancer control core grants should be combined with their center support core grants to give them more flexibility, a single and more consistent review and assured support for control activities mandated by Congress and the National Cancer Advisory Board.

NCI Centers Program Director William Terry indicated he might support the request. The center core support grants are reviewed by the Cancer Center Support Grant Review Committee and administered by Terry and his staff. The cancer control core grants, which are limited to the 19 comprehensive centers, are reviewed by the Cancer Control Grant Review Committee and are administered by the Div. of Cancer Control & Rehabilitation.

With the NCI reorganization now in progress, DCCR review groups, including the grant review committee, will be moved into one division, along with all other NCI contract and grant review bodies.

(Continued to page 2)

In Brief

IMMUNOLOGISTS BOYCOTT USSR TRIP; CENTERS PROGRAM STAFF REORGANIZED, TRIMMED DOWN

IMMUNOLOGY DELEGATION which had been scheduled to visit the USSR under provisions of the U.S.-Soviet bilateral health agreement voted unanimously not to go as a protest of the continuing heavy handed treatment of dissidents by the Russians. It was an individual decision by members of the delegation, with no official participation by the government in the decision. The immunologists agreed with the group of physicists, who also canceled a trip to the Soviet Union, that the present atmosphere there makes inappropriate any effort to exchange scientific information. . . . **CANCER CENTERS** Program staff at NCI has been reorganized by centers chief William Terry. William Roberson, Mary Carcoux and Ray Morrison have been named program directors. Each will be responsible for handling about one third of the approximately 60 center core grants. Terry's staff will be reduced by four; the cuts are the result of the reduced number of exploratory grant applications and the completion of the evaluation of existing comprehensive cancer centers. . . . **TWO POPULAR** leaflets—"Cancer Facts for Women" and "Cancer Facts for Men"—have been reissued by the American Cancer Society in a new format. They are available free at ACS units, and can be ordered in bulk for distribution to public groups. . . . **NEW PUBLICATION**: "Skin Cancer Education Materials" is available from NCI's Office of Cancer Communications, Bethesda, Md. 20014. Intended for use by health care providers and communicators, it contains material that presents a variety of approaches to cancer education.

CONTROL CORE GRANT REVIEW ATTACKED, MAY BE MOVED TO CENTERS COMMITTEE

(Continued from page 1)

DCCR Director Diane Fink told center directors at the recent meeting of the NCAB Subcommittee on Centers that NCI was considering transferring review of the control core grants to the CCSG. "I'm not suggesting that there be a single core grant, but only a single review," Fink said.

"Two separate grants with a single review would not be satisfactory," responded John Durant, director of the Alabama Comprehensive Cancer Center. "We're asking for a single grant with a single review. That would solve the problem of control people being completely uninformed about other center activities."

Durant listed what he said were three reasons "why so many people put various aspects of control as a problem (on a questionnaire sent to the comprehensive centers):

"—It is distressing that 13 centers are funded for control activities, and six are not. . . . There is no plan for centers development of control activities.

"—There are serious problems with peer review. One site visit team started by asking what else do you do in cancer. They are uninformed, and are more concerned with the process than the substance.

"—I disagree strongly with the separation of control from research.

"With one grant, there would be more even distribution, and we could develop our own plans for outreach," Durant said.

"Our advisory committee has been committed to centers from day one," Fink answered. "The disparity in dollars is due to peer review."

"Which is faulty," Durant said.

That exchange put another center director—Timothy Talbot of Fox Chase—on the spot. He has been chairman of the Cancer Control Grant Review Committee since its inception.

"That has been the most difficult thing I have ever done in my life," Talbot said. "It's still difficult. The committee as a whole is aware of the fact that it has made some errors, and had to struggle with the perception of what control is or should be. We've had to struggle with the nuances and differences involved in the transfer of existing knowledge. We've had to struggle with evaluating programs in control. We do have constraints of a subtle and difficult nature, in performing the assigned tasks.

"On the record, let's admit the imperfections in some of our struggles," Talbot continued. "But understand clearly that we've been instructed it is DCCR policy that quality of peer review was to be cherished as we struggle in an area new to all of us. We've made some difficult decisions in maintaining the quality of peer review. . . . The principle was adhered to, to the best of our ability.

"That may not solve your problem," Talbot told his fellow center directors. "But it is important that you know the motive was not to screw centers but to uphold the quality of peer review. . . . I hope I'm coming through devoid of defensiveness but cognizant of motives. The committee has been charged with everything from incompetence to stupidity, which is probably true of most committees."

Emil Frei, Sidney Farber Cancer Institute, said that "the National Cancer Act has regionalization written all over it. I've assumed this most applies to cancer control." He asked if it was NCI's position that regional control activities be done through the comprehensive centers. "I'm not saying the money should go to comprehensive centers, but control must be regionally integrated."

Fink responded that it was difficult for NCI to cut up the country into regions. "We've allowed you to select your regions. We are in line with a regional approach through a guiding institution, comprehensive centers or other institutions."

Fink contended that centers were designated as comprehensive primarily on their basic science and clinical research capabilities.

"That's not true," Durant agreed. "We signed an agreement with NCI that included a commitment to develop a control program and a detection program."

But Fink said it seemed that some comprehensive centers were not interested in control, "and perhaps we shouldn't force it."

Robert Cooper, Univ. of Rochester who chaired one of the NCAB site visit teams, said, "I don't believe that some comprehensive centers are disinterested in control. There is nothing in the profiles (questionnaires submitted to all cancer centers) or in the evaluations which indicates that."

Robert Hickey, M.D. Anderson, said, "Outreach programs are the most difficult tasks we have, and comprehensive centers have pledged themselves to undertake them." He feels the results can be worth the effort. "There's no question that cancer control can be exceedingly effective," Hickey argued, citing the reduction in cervical cancer deaths through the Pap test as an example.

Terry ended the discussion by noting that "we didn't get definitive answers on most of the issues. One of the issues that was most disturbing is the concern about the commitment of NCI to centers, and to comprehensive centers. There is no evidence to provide a rationale for that concern. There is a commitment. Tied to that is the policy that those centers which can't compete won't be funded.

"I'm committed to the philosophy of decentralization. I will work to provide more flexibility, and to provide you with the resources with which to work as you see fit, to develop in your region," Terry said.

NCAB COMPLETES EVALUATION OF 18 EXISTING COMPREHENSIVE CENTERS

Evaluation of 18 of the 19 comprehensive cancer centers has been completed by NCI staff and members of the National Cancer Advisory Board. Those evaluations were compiled into two volumes which were made available to the center directors. Staff members also wrote a summary of each center's evaluation; nine of those have appeared in previous issues of ***The Cancer Letter***—the others follow (UCLA was not included in the NCAB evaluation since it was so recently recognized as a comprehensive cancer center):

Mayo

The overall quality of the Mayo Comprehensive Cancer Center is excellent; fulfillment of the 10 National Cancer Advisory Board characteristics for comprehensiveness is at a high level at this stage of the center's development.

The Mayo Clinic's long-term commitment to patient care, research, and education and its particular emphasis on oncology in these areas contribute to an environment which is conducive to the success of a comprehensive cancer center program. The emergence of the center is proof of the institution's commitment to oncology.

Programs in both basic science and clinical activities have been developed. Dr. Charles Moertel, the center director, is cognizant of the specific weaknesses in these programs, most notably the lack of depth in basic research. The clinical program is well organized; clinical research protocols for all patients with neoplastic diseases are an indication of coordinated multidisciplinary patient management.

The organization and administration at Mayo Clinic and Mayo Comprehensive Cancer Center are excellent. It is obvious that the parent institution provides strong support for the cancer center, financially, structurally and functionally.

Areas which have been recognized as needing improvement are training and cancer detection. Although cancer detection is accomplished in a few selected areas, there is not an adequately functioning, multisite detection program at this center. The training program is particularly weak in medical oncology and therapeutic radiology.

The programs in cancer education and control and outreach are well organized and are adequately meeting the center's needs. The statistics and epidemiology program is superbly organized and functioning, although it does not effectively use all of the accumulated data at its disposal.

The comprehensive cancer center program at Mayo adheres to a well-defined set of objectives, which have been outlined for a six-year period, divided into two trienniums. The organizational plan for center management is compatible with established administrative policies and procedures of the parent institution, thus avoiding any overlapping or conflict between the center and the clinic.

Farber

The Sidney Farber Cancer Institute is a freestanding organization originally founded in 1947 as the Children's Cancer Research Foundation. It is primarily a research institution with a long history and tradition of a continuing and total commitment to cancer. The director, Dr. Emil Frei, has made great progress in effectively integrating SFCI into the Harvard Medical Center. Its relationship with Harvard is through a series of affiliation agreements with the university and its medical school, and with a series of memoranda of understanding and affiliation agreements with five other hospitals in the Longwood avenue area—New England Deaconess Hospital, Beth Israel Hospital, Boston Hospital for Women, Children's Hospital Medical Center and Peter Bent Brigham Hospital. Although the institute derives no financial support from its affiliation with Harvard, numerous other benefits are in evidence. Academic appointments in SFCI are developed through the Harvard system, enabling SFCI professional personnel to maintain close contact with Harvard. This has made possible the sharing of clinical and basic science resources, which has led to increasing verticle integration of the research in these two areas.

The administrative structure of SFCI is the traditional one with a large board of overseers and a smaller group of trustees who are involved in day-to-day decisions regarding the center itself. The professional structure includes the director who is a clinical scientist, a deputy director who is a basic scientist, and a professional steering committee composed of the major division chiefs which considers all substantive professional issues such as major recruiting, space allocation, future programs, etc. This structure appears to be functioning adequately as progress has been made at the institute over the past five years in fiscal, capital, and faculty development. Major leadership personnel and division heads are, with limited exceptions, outstanding; and the director has the ability and authority to continue to effect the center's move toward true comprehensiveness.

Since Dr. Frei's appointment as director, considerable expansion has taken place in the clinical programs. Major emphasis has been placed on interdisciplinary patient care and therapeutic research. Strong programs exist in both pediatric oncology and medical oncology, assisted by significant input from the basic sciences. In the area of clinical pharmacology, SFCI has brought the basic research of new drug development to clinical trials.

Dr. Frei intends to expand the clinical programs to include surgery and the surgery subspecialties, thereby further enhancing the multidisciplinary interactions of the clinical activities in the Longwood avenue affiliated hospitals.

At the present there are approximately 40 beds in

the new Dana Center devoted to oncology patients and 18 beds clustered in the Children's Hospital devoted to pediatric oncology. There are plans for doubling the number of beds in the Dana Center, providing there is an increased demand for additional ones. The beds in the Dana Center do produce some difficulties since there is no surgical support area there and since patients requiring surgical intervention have to be transported to Peter Bent Brigham or perhaps one of the other hospitals for that service. However, these beds are utilized, to a great extent, for chemotherapy, immunotherapy and radiation therapy and their occupancy has improved dramatically.

The basic science programs at SFCI are of the highest caliber. Staffed for the most part by investigators who have outstanding scientific credentials and excellent records of accomplishments, the nine ongoing programs represent research in a number of areas that is very pertinent to understanding, at the molecular level, the nature of cancer. Plans are underway to expand three of these programs: tumor immunology, pharmacology, and cellular biology. Additional research programs which Dr. Frei hopes to develop are in the areas of chemical carcinogenesis, DNA repair, and molecular differentiation. It is hoped that a satisfactory internal peer review system will be worked out whereby future decisions on program development and selection of priorities can be made objectively and in the best interests of the overall center.

Complementing these essentially in-house developments has been the development of an unusually broad and effective outreach program into western Massachusetts and Maine. New knowledge is disseminated to health care providers associated with the four Boston cancer centers and with the hospitals in the Springfield, Mass. and Bangor, Maine areas via this network. However, increased effort needs to be directed toward cancer screening and detection, which in turn would allow the institute to have a more specific input into decisions involving what knowledge should be disseminated.

Dr. Marvin Zelen recently joined SFCI as director of the Div. of Biostatistics & Epidemiology and tenured professor in the School of Public Health. The statistical consultation for clinical protocol design and evaluation will be greatly enhanced by the input of Dr. Zelen and his group. Planning is currently underway to launch major research programs in biometry, epidemiology, and computer science.

Although limited somewhat in scope, perspective and planning, the training and education program of the SFCI is of good overall quality. There are a number of activities ongoing within the institute, involving postdoctoral, (with some pre-doctoral) basic science training as well as postdoctoral clinical training. It has not yet been established exactly what impact this program has had on the level of cancer care in the region.

Finally, the SFCI is fulfilling its role as an active participant in the National Cancer Program. Not only do center members participate in a variety of advisory and operational activities with NCI and ACS, but they collaborate with a number of other cancer centers in such areas as research, data collection and in clinical trial programs.

Hopkins

The Johns Hopkins Comprehensive Cancer Center (JHCC) is, on balance, a credit to the National Cancer Program, NCI and Johns Hopkins Univ. The JHCC has the leadership, under direction of Dr. Albert Owens, and the institutional support at all levels to achieve its objectives. It is evident that the JHCC is a strong administrative force within the university and medical center and that Dr. Owens has successfully overcome initial problems in its establishment. Dr. Owens is assisted in the overall administration of the center by an extremely competent administrative staff, under the direction of Richard Harrington. The administrative setting for the center is optimum within the university. Administratively, the JHCC is one of the finer cancer centers in the country.

It should be noted that the physical facilities for the JHCC, while completely adequate at this time, will be too small to contain the center within a very short period of time.

Overall, the clinical programs at the JHCC are of high quality with the primary emphasis on medical oncology and pediatric oncology. The integration of these programs with radiation therapy appears to be adequate; however, the lack of surgical input into the practice of oncology within the center is glaringly evident. It is also felt that the JHCC is lax in integrating the clinical programs with the nonclinical disciplines such as pharmacology, immunology, and virology. A possible mechanism to achieve this integration might be the use of the 56 inpatient beds within the JHCC. This is a large number of inpatient beds for research protocols and it would appear that this would facilitate the integration of surgical oncology and some of the nonclinical disciplines with medical and pediatric oncology.

The Johns Hopkins Univ. Medical Center is well known for its excellent basic research programs. Space for basic research within the JHCC is qualitatively excellent and it should be possible to recruit basic scientists of the highest caliber. In order to accomplish this it will be necessary to collaborate very closely with basic scientists in other parts of the university. It is not felt that communication has been established with certain key individuals such as Dr. Dan Nathans and Dr. Tom August as well as others who would be of tremendous benefit to the overall cancer program. It would appear that overall the basic science program at the JHCC is of average quality and that while Dr. Owens is aware of the weakness in this program, no plans are evident for the

correction of this deficiency.

While the community program of the JHCC has great potential, little if any results are evident in this area. For example, it would appear that there is almost a total lack of a detection program and few substantive achievements for the community outreach or cancer control program.

The epidemiological and statistical capabilities of the JHCC are done through the Johns Hopkins School of Public Health, not through the center directly. Whether such collaborative arrangements will work remains to be seen.

The education programs are excellent in terms of clinical education with, again, the glaring absence of involvement by the Dept. of Surgery. There also seem to be little if any efforts to educate the community at the postgraduate level. Basic science education at the postdoctoral and graduate level is excellent as it is throughout the university.

M.D. Anderson

The Univ. of Texas System Cancer Center began with the creation of the M.D. Anderson Hospital & Tumor Institute in 1941. It is now a freestanding unit of the state university system. The strong administration of this center begins with the superb leadership and expert guidance of Drs. R. Lee Clark and Robert Hickey. They are cognizant of strengths and the weaknesses of their center and have plans for correcting the latter. This center has high quality personnel and superb facilities and equipment. Only about 1/3 of the total budget of the center is derived from federal funds with substantial funding coming from the state, from the M.D. Anderson Foundation and from private philanthropy. Approximately 1.3 million square feet of space is currently devoted to clinical and basic science and to educational activities. The site visitors concluded that the administrative organization of the center is very effective and that it will more than likely continue to be since it is reviewed on a continuing basis and upgraded constantly.

The major clinical services at M.D. Anderson Hospital are outstanding. During the early years, this hospital concentrated on providing good surgical diagnosis and treatment of cancer. Since then, first radiotherapy, then chemotherapy and finally immunology have been developed as major therapeutic programs. There is impressive breadth in clinical programs which include (in addition to surgery, radiotherapy, medicine, pediatrics and gynecology) dental services and rehabilitation, which are developed and expanded beyond the point seen in most cancer centers. The wealth of available patients is a remarkable resource and offers essentially unlimited opportunities for research. The Univ. of Texas System Cancer Center has 330 beds presently open and sees over 8,000 new cancer patients annually, with 800-900 patients being seen in the outpatient clinics per day. As might be expected in an operation of this size, the quality and substance of clinical activities vary considerably and there exists some degree of overlap in the large clinical programs. Nonetheless, there are remarkable clinical resources within this institution and a commitment to the improvement of cancer care is undoubtedly genuine and pervasive.

In the area of basic sciences, there are many strengths and individual areas of excellence. Activities are broken down into a number of departments including biology, biochemistry, molecular carcinogenesis, physics and pathology. A considerable range of research projects are ongoing and there are numerous nationally recognized basic researchers scattered among the various components. These highly competent individuals nevertheless form a minority and efforts should be undertaken to strengthen those programs which are not productive. It is recommended by the reviewers that the center reevaluate its basic science programs perhaps through the auspices of a strong research director or the recruitment of very strong department heads who are given a significant amount of leeway, money and space with which to build outstanding basic science departments.

The cancer control and community outreach program has vigorously evolved under the enthusiastic direction of Dr. Jackson. The major weaknesses of this otherwise good program include the need for more active involvement with other cancer community groups in detection and the need for evaluation and assessment of existing control programs. In the area of cancer detection, efforts are above average at this center and the potential for increased training and detection skills is very great. However, there needs to be a major commitment to a cancer detection program in terms of personnel and funds. Further, there needs to be a greater emphasis on evaluation and a measure of the cost effectiveness of existing projects.

In the area of epidemiology and statistics, the center has a very well integrated program with an excellent professional staff especially in biostatistics and biomathematics. The followup of patients is very successful and the data retrieval methods are quick and efficient. There are several weaknesses, however, particularly due to a lack of innovative epidemiological research.

Training and education activities within the center are strong and include a variety of programs with excellent facilities and good integration between the center and the university's School of Medicine. A major weakness is the lack of a structure core course in basic oncology and another is the need for more postdoctoral fellows in the basic science areas.

The center is obviously an active and successful participant in the National Cancer Program as evidenced by its reputation and its total dedication to cancer care, education, and research.

Ohio State

The Ohio State Univ. Comprehensive Cancer

Center was recognized as comprehensive by NCI in April 1976, approximately two years prior to the NCAB site visit. The progress to date must be measured in this context. This center has made considerable progress toward compliance with the 10 NCAB characteristics for comprehensive cancer centers, although there are areas which need considerable upgrading.

Although the leadership of Dr. David S. Yohn, center director, has been superb and the commitment of the university to the cancer center remains strong, the administrative structure needs better definition, including strengthening of the position of center director, more formal appointment and reporting relationships, better definition and review for membership in the center, and more clearly defined procedures for internal review of center policies and budget expenditures.

It is clear that the center, under the direction of Dr. Yohn and Dr. Albert LoBuglio, deputy director, has made impressive strides in the past several years toward building its clinical and basic science programs.

Overall, development of clinical activities has been commendable. A broad multidisciplinary effort has been demonstrated and specific research projects of high quality are evident. The clinical activities are characterized by excellent management and control procedures, development of interaction between clinicians and basic scientists, and innovative procedures. The most serious areas of weakness include radiation therapy, gynecologic oncology, and pediatric oncology.

The center has also played a major role in the development and expansion of a basic research program which is characterized by genuine commitment to the cancer problem, interdisciplinary collaboration, and high quality research. There remain weaknesses in viral oncology, developmental therapeutics and carcinogenesis. The director needs to assess more closely the basic science program in order to correct existing deficiencies and further develop the strengths.

No organized cancer detection program exists, nor is one planned for the near future. Cancer control activities focus on professional and public education where progress has been excellent. The center does not presently have a cancer control director although one will be appointed as of March 1978. Minimal activity is occurring in cancer rehabilitation, psychosocial care, and primary prevention.

A rather weak program exists in cancer data management, biostatistical assistance to investigators, and cancer epidemiology. While progress is being made in rectifying inadequacies in the tumor registry and in developing the means to contribute to the cancer center patient data system, it is not yet clear that a scientifically productive and administratively sound epidemiology and biostatistics unit has been organized under the aegis of the center. The epidemiology research programs in progress, or proposed, are rather limited in scope, and biostatistical assistance to member investigators is provided primarily for protocol studies carried out within the 16-bed interdisciplinary oncology inpatient service.

In regard to the center's training and education activities, there have been important innovations in the undergraduate medical and dental school curricula, and in graduate nursing training. The center has capitalized upon the excellent capabilities at OSU for professional and public education by instituting important activities in the outreach educational field. Adequate training programs exist in both the clinical and basic sciences, and cooperation is evident among existing programs throughout the center in relation to training and education.

Roswell Park

As would be expected with Roswell Park being one of the world's oldest cancer centers, originating in 1898, it meets the characteristics of a comprehensive cancer center to an excellent degree.

Specifically, the long-term commitment and stability of the center is obviously assured since it has been supported and backed by the state of New York since 1911. The goals and objectives of the center appear to be clearly outlined and are being carried out in a timely fashion. The only weakness in this area is the lack of an overall external scientific review committee to evaluate the entire institution. Administratively the center is managed very well, with the physical and managerial controls being handled quite adequately by Dr. Gerald Murphy and his staff. Funds and space are adequate for the responsibilities of the center.

The clinical program includes approximately 325 beds with an average daily inpatient census of 281, and approximately 235 outpatient visits per day. Over 500 cancer patients are treated each day by a clinical staff of 119 physicians. The clinical resources at Roswell Park, including traditional sources of patient referral, comprehensive physical facilities and expertise and depth of clinical staff, assure excellence in cancer care and therapeutic research. Broad and balanced programs involving both preclinical and clinical research disciplines should contribute to the effectiveness of patient management. Research protocols involving single therapeutic disciplines, as well as multimodal approaches to cancer treatment, are being developed and implemented both within and between the various clinical departments. There is active participation and leadership in national clinical investigations and a strong funding base has been provided through state and federal sources.

The basic science program is extremely broad-based, the only criticism being that perhaps more novel approaches could be utilized in the development and synthesis of anticancer agents. Also, attempts should be made to collaborate more actively in the areas of basic research with the State Univ. of

New York at Buffalo School of Pharmacy.

The cancer control, outreach, and detection programs are administratively sound under the direction of Dr. H. James Wallace who has developed a competent and enthusiastic staff to deal with the large and complex issues throughout the state of New York. With the high priority of cancer control within Roswell Park it would seem appropriate that the state should have a line item for cancer control.

The epidemiology and statistical program under direction of Dr. Roger Priore is average in scope and quality and should be strengthened as soon as possible. As an example, there is a relatively good working relationship between basic and clinical investigators, yet this advantageous relationship has not developed between either the basic investigators or the clinical investigators and the epidemiologists.

A training and education program, under direction of Dr. Ed Mirand, is very broad and in general very good. There are a large number of trainees, as would be expected for a state institution such as this. Existing collaborative education agreements with SUNY (Buffalo) School of Pharmacy should be strengthened as soon as possible, and it is recommended that the graduate programs be reorganized along more formal lines.

Sloan-Kettering

The Memorial Sloan-Kettering Cancer Center has achieved a level of organization that convincingly reflects its commitment to the goals and objectives proposed for comprehensive cancer centers. Initiatives taken by the directors of the center's programs to strengthen the administrative structure, redirect and enlarge both basic and clinical research programs, and maximize the multidisciplinary component of inpatient care, as well as of research, have clearly begun to pay off. Dr. Lewis Thomas is president of the center which is composed of (1) Memorial Hospital, of which Dr. Edward Beattie is general director and chief medical officer; and (2) the Sloan-Kettering Institute for Cancer Research, of which Dr. Robert A. Good is president and director. The center's administrative structure is excellent and in many respects can be considered the prototype for cancer centers throughout the country.

The Memorial Sloan-Kettering Cancer Center is a very large center funded primarily by income from patient care and federal sources. It has gained international recognition as a treatment center and as a research institute for basic and clinical research related to cancer. The program of the center addresses itself in a major way to a variety of areas of cancer investigation and has moved to further strengthen already substantial achievements related to the 10 NCAB criteria for comprehensive cancer centers.

Dr. Good has instituted new research programs by recruiting excellent investigators to complement the outstanding programs of the senior investigators already in residence. There are high quality basic science programs at the center with areas of special excitement that place this center at the forefront of world science. There are also some rough spots, but the reorganization of the scientific effort over the past three years has proven the administration's dedication to fostering the excellence of cancer research and to gradually eliminate those programs which do not measure up.

There has been an infusion of talent into Memorial Hospital with the result that it has most of the resources for an ideal clinical cancer center. While weaknesses do exist, they are recognized and plans and priorities include the strengthening of those areas.

Clinically, it is disappointing that there is not more devotion to interdisciplinary care and innovative clinical research. However, the center's intention to make new appointments in the major clinical departments should provide opportunities for improving upon this situation. The identified weaknesses in clinical areas do not detract from the generally outstanding caliber of the center.

The center meets all of the requirements for a comprehensive cancer center. Not all characteristics are equally well balanced, but there continue to be active developmental efforts. The administrative is creative and supportive; it seems to exist to facilitate rather than to regulate the activities of the center; this is especially true of its role with respect to research activities.

The cancer control program is extensive and successful in many areas of public and professional communication. Nevertheless, a formal program is required to meet the cancer control goals, evaluate its needs, and set priorities with respect to the whole program. The detection programs are just beginning to develop and thus far represent a significant effort in this area. The breadth of these programs is limited, however, by the lack of demonstrated approaches for early detection of most of the malignant diseases.

In epidemiology and biostatistics, the leadership of the three component areas—the statistical service, the clinical information service, and the epidemiology service—is strong. Strides are being made in each of these areas, but there is a significant lack of resources in the epidemiology service and a less than ideal relationship between the statistical service and the epidemiology service.

There are outstanding programs in basic research education and training. The clinical program does not appear to have achieved similar organization. The imbalance in the quality of the education and training programs is recognized by the program directors, who have taken the first steps toward resolution of the problem by the appointment of a new educational director effective in July 1977.

Evaluations of the USC/LAC and Univ. of Wisconsin centers will be published in next week's issue.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer of Contract Specialist for copies of the RFP, citing the RFP number. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research Contracts Branch which are issuing the RFPs. Their addresses, all followed by NIH, Bethesda, Md. 20014, are:
Biology & Diagnosis Section — Landow Building
Viral Oncology & Field Studies Section — Landow Building
Control & Rehabilitation Section — Blair Building
Carcinogenesis Section — Blair Building
Treatment Section — Blair Building
Office of the Director Section — Blair Building
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NO1-CN-85417-06

Title: *Pain control in cancer*
Deadline: *Approximately July 30*

The Div. of Cancer Control & Rehabilitation of NCI is seeking proposals for demonstration of a prospective pain management team (PMT) program for the treatment of pain associated with cancer.

Pain researchers and specialists in pain treatment have advocated a team approach to the treatment of chronic and intractable pain. This procurement will foster such an approach directed specifically to the needs of cancer patients. DCCR wishes to demonstrate that pain control for cancer patients is best instituted early in its onset after careful evaluation by a multidisciplinary team of experts. The probable course of tumor progression and consequences of pain should be assessed and a plan developed for each patient directed at minimizing pain disability.

It is anticipated that multiple awards will be made, each not to exceed $100,000 direct cost. Qualified institutions must have appropriate patient populations to comprise PMT and comparison groups; experience in pain treatment and pain research; and expertise in study design and data management. Offerors must agree to participate in collaborative efforts to assure program consistency and to work toward development of guidelines for the evaluation and management of pain in cancer patients.

Contracting Officer: John Campbell Jr.
Cancer Control
301-427-7984

RFP NIH-ES-78-37

Title: *Comparative carcinogenicity and toxicity studies of selected environmental chemicals*
Deadline: *Approximately July 17*

The National Institute of Enviornmental Health Sciences is seeking organizations having the capabilities, resources and facilities to successful conduct the studies proposed for this contract. The NIEHS proposes testing of four selected chemicals to determine their potential toxicity and carcinogenicity. The study will involve chemical procurement and analysis, pre-chronic, maximum neonatal dose and maximum tolerated dose determinations; carcinogenesis bioassay and toxicity bioassay. Expertise will be required in the areas of toxicology, histopathology, clinical chemistry, developmental biology, immunology and behavioral toxicology.

Testing of four chemicals should require about five years to complete; it is anticipated that tests for each chemical will span three years. Proposals will be considered from sources which stipulate completion of testing of two chemicals within four years. More than one contract may be awarded as a result of this solicitation if such multiple awards are determined to be in the best interest of the government.

Contract Specialist: Joyce Meyers
NIH Research Contracts Branch
Div. of Contracts & Grants
Bldg 31 Rm 2B-47
Bethesda, MD 20014

CONTRACT AWARDS

Title: Biochemical mechanisms of endocrine induced breast cancer regression, continuation
Contractor: Univ. of Texas Medical School (San Antonio), $125,000.

Title: Suppression of endocrine function by systemic agents as treatment of human breast cancer, continuation
Contractor: Pennsylvania State Univ. (Hershey), $224,000.

Title: Use of ultrasound in the diagnosis of breast cancer
Contractor: Jefferson Medical College of Thomas Jefferson Univ., $432,000.

Title: Isolation of type C viruses from cultured human leukemia cells, continuation
Contractor: Sidney Farber Cancer Institute, $99,970.

Title: Study and production of avian leucosis viruses, continuation
Contractor: Life Sciences Inc., $1,060,000.

Title: Cancer information dissemination and analysis center—chemical, environmental and radiation carcinogenesis
Contractor: Franklin Institute, $635,647.

The Cancer Letter —*Editor* JERRY D. BOYD
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