

University of Texas MD Anderson Cancer Center

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1978

## **10.04 Association of American Cancer Institutes (AACI) - Application for Membership, 1978**

Office of the President

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Application for membership

1978

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June 23, 1978

Dr. E. A. Mirand  
Roswell Park Memorial Institute  
666 Elm  
Buffalo, New York 14263

Dear Doctor Mirand:

Please find enclosed the renewal application of The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute into the Association of American Cancer Institutes.

Sincerely yours,

R. Lee Clark, M. D.  
President

RLC:jh  
Enclosure

MEMBERSHIP APPLICATION

ASSOCIATION OF AMERICAN CANCER INSTITUTES

Date of Application December 22, 1977

## 1. Name and address of Applicant Institute

The University of Texas System Cancer Center  
 M. D. Anderson Hospital and Tumor Institute  
 Texas Medical Center  
 Houston, Texas 77030

Director or Senior Representative R. Lee Clark, M. D., President

## 2. Category of membership being applied for. (See Instructions #5a, b, c, &amp; d).

Regular Membership

1. Comprehensive Cancer Center   X    
 2. Coordinated Cancer Center         
 3. Special Cancer Center         
 4. Government Agencies & National Voluntary Health Organizations

Affiliate Member       Corresponding Member       Sustaining Member       

## 3. Summarize purpose (objectives) of institute or organization

Diagnosis, treatment, study and prevention of neoplastic and allied diseases

4. ORGANIZATION

Is the applicant institute an element of a larger organization, such as a university, hospital, research center, etc.        no   X   yes

Specify: A component of The University of Texas System

4.1 Provide an organization chart of the applicant institute

See Exhibit A

4.2 Provide the following information on personnel:

PERSONNEL

Professional:

	<u>MD</u>	<u>PhD</u>	<u>DDS</u>	<u>MD/PhD</u>	<u>MD/DDS</u>	<u>DVM</u>	<u>DVM/PhD</u>	<u>TOTAL</u>
Full-time	155	121	5	12	0	7	0	300
Part-time	20	2	0	1	0	0	0	23
Volunteer	30	5	0	1	0	0	0	36
Consultants	86	36	16	8	2	5	1	154

Total number of technicians employed by the institution 524.

Total Personnel - All Categories 4307.

4.3 Accrediting Agencies, if any. Please list: See Exhibit B

4.4 To whom does the head of the applicant institute report?

President, The University of Texas System

4.5 Who appoints the head of the applicant institute?

Chancellor and the Board of Regents, The University of Texas System

4.6 Who has review authority over the appointment?

The Board of Regents of The University of Texas System

4.7 Who has approval authority?

The Board of Regents of The University of Texas System

Head of applicant institute:

- .1 Does he have final authority to establish the internal organization of the institute? \_\_\_\_\_ yes X(see note no. If no, who has approval authority?  
below)

The University of Texas Board of Regents May the approving authority change the institute's organizational structure? X(see note yes \_\_\_\_\_ no  
below)

If yes, explain conditions The Board of Regents of The University of Texas System has final authority for organization and operation of all components of the system based on recommendations of the institutional heads and the Chancellor. It would be unusual for that Board to overrule the institutional head in matters relating to internal organization and operation of the institute, however it could legally do so.

Could changes be made over the objections of the head of the applicant institute? X(see note yes \_\_\_\_\_ no  
above)

- .2 Does he have final authority to appoint key medical, scientific, and management personnel? \_\_\_\_\_ yes X(see note no  
below)

If no, who has approval authority? The Board of Regents of The University of Texas System, however all such appointments are based on his recommendation.

Can the approving authority make personnel appointments? X no \_\_\_\_\_ yes

FINANCIAL MANAGEMENT

- 5.1 Who coordinates the preparation of the institute's budget? \_\_\_\_\_  
E. R. Gilley, Vice President for Business Affairs
- 5.2 What is the prime source of the institute's budget? State Appropriation  
Percent of the total budget? 40.4 % The secondary source? Patient  
charges and local income Percent of the total budget? 25.4 %
- 5.3 How much is the institute's total budget for the current year? \$81,246,169
- 5.4 To whom is the budget submitted? President, The University of Texas System
- 5.5 Who reviews the budget submittal? President, The University of Texas System
- 5.6 Who has approval authority over the budget submittal? \_\_\_\_\_  
The Board of Regents of The University of Texas System
- 5.7 Is the approval authority authorized to modify the budget submittal? no  yes  
If yes, which approval authority(s)? \_\_\_\_\_  
The Board of Regents of The University of Texas System
- 5.8 If the total budget submittal is not appropriated by the funding agency, does the head of the institute have final authority as to how the available funds will be allocated within the organizational structure of the institute? \_\_\_\_\_ yes  no  
If no, who does? \_\_\_\_\_  
The Board of Regents of The University of Texas System

RESEARCH

6.1 Basic Science

.1 Use the form on the next page to provide the following information:

- . List of basic science departments conducting research (Physics, Chemistry, Biomathematics, Biology, etc.)
- . The number of medical and scientific personnel in each department (M.D., Ph.D., etc.)
- . The number of technicians in each department
- . Indicate to whom each department reports
- . Total budget for each department for the current year
- . Total number of active projects in each department

.2 For each department, list the principal projects being conducted. (Use separate sheets). Give only title of the project and its objectives.  
See Exhibits C, D, E, F, G, H, and I

.3 Within the institute, who reviews proposed basic science research projects?

Research Committee

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.4 Within the institute, who has final approval/disapproval authority of proposed basic science research projects? \_\_\_\_\_

President

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.5 Does the institute have a specific procedure for evaluating on-going or completed basic science research projects? \_\_\_\_\_ no \_\_\_\_\_ X \_\_\_\_\_ yes.  
If yes, outline. \_\_\_\_\_

Periodic evaluation by the Research Committee

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DEPARTMENT	Professional	Technicians	Projects	Budget	To Whom Department Head Reports
Biochemistry	18	12	31	\$1,266,378	Director
Biology	24	34	48	2,349,081	Director
Biomathematics	12	0	12	1,615,856	Director
Epidemiology	1	0	5	1,180,904	Director
Experimental Animals	7	11	2	598,664	Director
Molecular Carcinogenesis and Virology	8	14	26	748,747	Director
Physics	19	36	20	1,063,630	Director
TOTAL	89	107	144	\$8,823,260	

.6 What is the total square feet of space allocated to each basic science department?

	<u>Department</u>	<u>Sq. Ft.</u>
	Biochemistry	17,405
	Biology	21,786
	Biomathematics	7,518
	Epidemiology	4,532
6.2	<u>Clinical Research</u> Physics	16,916
	Virology	11,757

.1 Use the form on the next page to provide the following information:

- . List of Clinical Departments conducting research (Surgery, Medicine, Pathology, Gynecology, Pediatrics, etc.)
- . The number of physicians personnel in each department
- . The number of technicians in each department
- . Indicate to whom each department reports
- . Total budget for each department for the current year
- . Total number of active research projects in each department

.2 For each department, list the principal projects being conducted. (Use separate sheets). Give only title of the project and its objective.

See EXHIBITS J, K, L, M, N, O, P, Q, R, S, T, and U

.3 Within the institute, who reviews proposed clinical research projects?

Research Committee, Surveillance Committee

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.4 Within the institute, who has final approval/disapproval authority of proposed clinical research projects? President

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.5 Does the institute have a specific procedure for evaluating on-going or completed clinical research projects? no X yes. If yes, outline. Annual evaluation by the Surveillance Committee

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DEPARTMENT	Professionals	Technicians	Projects	Budget	To Whom Department Head Reports
Anesthesiology	9	32	3	\$2,187,408	Director
Laboratory Medicine	10	44	7	2,686,154	Director
Developmental Therapeutics	48	108	62	9,051,435	Director
Gynecology	4	2	4	548,075	Director
Medicine	29	53	46	2,927,947	Director
Pathology	16	52	13	1,215,514	Director
Pediatrics	8	6	15	754,383	Director
Diagnostic Radiology	18	46	13	972,164	Director
Rehabilitation Medicine	3	18	9	197,422	Director
Radiotherapy	24	72	32	3,495,225	Director
Surgery	15	6	27	1,460,984	Director
Urology	4	0	10	333,941	Director
TOTAL	188	439	241	\$25,830,652	

- .6 Does the institute have a statistical base for evaluation of results of its program activities, such as records which standardize disease classification to enable exchange of information between institutions? Briefly discuss.

(See Exhibit V)

- .7 What is the total square feet of space allocated to each Clinical Department?

<u>Department</u>	<u>Sq. Ft.</u>
Anesthesiology	4,377
Dental Oncology	615
Developmental Therapeutics	26,579
Diagnostic Radiology	31,624
Gynecology	4,226
Laboratory Medicine	32,432
Medicine	20,801
Pathology	14,675
Pediatrics	5,335
Radiotherapy	31,965
Rehabilitation Medicine	2,509
Urology	2,558

PATIENT CARE

7.1 How many hospital beds are devoted to inpatient care? 372 as of 12-19-77

7.2 Complete the following table

	76-77 ACTUAL NO. PAST YEAR	77-78 ESTIMATED NO. CURRENT YEAR
. Patients Seen	26,507	28,507
. New Patients Registered	8,024	9,200
. Outpatient Visits	334,297	359,297
. Hospital Patient Days	98,623	122,718
. Surgical Procedures	4,855	5,100
. X-ray Therapy - Lesions Treated	2,897	3,100
. X-ray Therapy - Areas Treated	97,528	98,028

7.3 List each clinical discipline providing patient care and the number of medical doctors in each discipline.

<u>Clinical Discipline</u>	<u>Number of M. D.</u>		
	<u>full-time</u>	<u>part-time</u>	<u>total</u>
Anesthesiology	8	0	8
Dental Oncology	5	0	5
Developmental Therapeutics	30	1	31
Diagnostic Radiology	16	6	22
Gynecology	4	1	5
Laboratory Medicine	5	0	5
Medicine	26	4	30
Pathology	14	1	15
Pediatrics	5	2	7
Radiotherapy	17	0	17
Rehabilitation Medicine	3	0	3
Surgery	15	6	21
Urology	4	0	4

7.4 To whom do the heads of clinical departments report? Director

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7.5 What is the budget for patient care? \$35,607,297 FY 1977; \$40,837,260 FY 1978 est.

7.6 What is the total square feet of space allocated to outpatient care? 131,599 Sq. Ft.

EDUCATION

8.1 Does the institute have a formal, documented education policy? no X yes.  
If yes, please provide a copy.

A. President's Regulations, Article III (See Exhibit W)

B. Education Committee Policy and Organization (See Exhibit X)

8.2 Indicate the training programs being conducted within the direction and control of the institute. Use the following check list and show the number enrolled.

Program	No. Trainees 1976-1977	Est. Trainees 1977-1978
CLINICAL TRAINEES		
Residents, Fellows and Project Investigators	108	120
Residents in Affiliated Programs*	11	12
Interns and Residents in Integrated Program **	29	38
Dental Residents and Fellows	9	10
RESEARCH TRAINEES		
Graduate Trainees in degree programs (research for dissertations)	57	38
Special trainees/non-degree	3	5
Postdoctoral Fellows and Project Investigators	57	46
ALLIED HEALTH STUDENTS	21	18

\* 55 trainees occupying 11 positions

\*\*104 trainees occupying 29 positions

8.3 Does the institute have an Office of Education (or other title) functioning as a distinct organizational element? no X yes. If yes, does the office have a full time or part time director? X full part. If part time, how many hours per week? hrs./week.

8.4 Does the institute have autonomy in determining all aspects of its education program such as the areas in which education programs will be planned and conducted, the curricula, etc.? X yes no. If no, who has review privileges? \_\_\_\_\_

Who has approval authority? President, Programs are guided by Office of Education

8.5 Can any part of the education program be imposed by anyone outside the institute? X no yes. If yes, specify. \_\_\_\_\_

9 CANCER CONTROL

- 9.1 Does the institute have any kind of cooperative program with the local medical profession? \_\_\_\_\_no \_\_\_\_\_X\_\_\_\_\_yes. If yes, describe.

See Exhibit Y

- 9.2 What organizational element has responsibility for cancer control planning and implementation?

The Associate Director of Extramural Programs, a major division reporting to the Executive Vice President and Director, The University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, has this responsibility.

## EXPANSION PLANS

Briefly describe plans for expansion. In each case, indicate whether or not funds are available.

### 10.1 Research

#### Research Science Park

##### Carcinogenesis Center

Plans are under development for 40,000 square feet of research space to include both a P4 facility and facilities for screening chemicals for potential carcinogenic properties. An additional 18,000 square feet of support facilities are proposed. Project is not funded.

##### Veterinary Resources Division

Planning is underway for construction of approximately 100,000 square feet of animal research space which will include special facilities for handling biohazardous agents and facilities for pathogenic free and gnotobiotic animal production. Additional projects for 75,000 square feet for animal housing and general supports facilities are also planned. Projects funds are pending.

### 10.2 Patient Care

#### Inpatient facilities

With the opening of the new 350 bed Hospital Pavillion in 1977, the patient floors of the original hospital are being remodeled. Completion of this construction will bring the total inpatient capacity to 550 beds. Funds are available.

#### Rehabilitation facilities

A 150 bed multidisciplinary rehabilitation facility is planned in proximity to the hospital. The comprehensive rehabilitation facility will be dedicated to patient care, research and education. It will serve as a unique rehabilitation resource for the region. Project funds are pending.

#### Neutron Therapy Center

A facility, cyclotron designed and dedicated to patient care is planned. Funds are not allocated.

#### Patient Housing

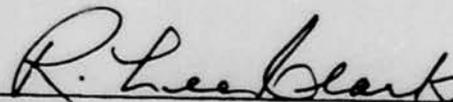
A 500 room hotel for patients and families constructed and operated to provide relatively inexpensive housing. Project construction funds are under consideration.

### 3 Education

With the addition of more than 12,000 square feet of education and training facilities provided in the new clinic building and the Lutheran Pavilion Hospital we are presently concentrating on improving our education program content, scope and evaluation. Plans for program expansion include:

- 1) Increasing the number of medical students and residency level trainees on our expanded inpatient facilities.
- 2) Expanding didactic basic science curriculums for all clinical fellows.
- 3) Developing of a three year oncology-hematology fellowship.
- 4) Planning for a two year surgical fellowship and expanded rotations in both the surgical specialities and medical specialties through radiation therapy and pathology

10.4 Cancer Control Expansion and/or revision of all current programs is a continuous process. Any activity with a positive evaluation will be expanded as needed and will be funded by the group(s) receiving the benefits. Other plans to expand the cancer control effort include a program in earth and life sciences and a program in space and life sciences. Both programs will be concentrated in the areas of cancer causation, environmental carcinogenesis, and activities directed toward cancer prevention. Subprograms include occupational carcinogenesis research, environmental studies, epidemiological research, genetics research, educational activities and screening programs. The Space and Life Sciences program represents an attempt to form a consortium consisting of major Universities and the National Aeronautics and Space Administration. It includes thoughts of a Residency Program in Space Medicine and Biology, application of technology learned through space exploration, and the sending of basic research packages on future space flights.



Signature, Director or Senior Official

## ATTACHMENTS

Exhibit A Organizational Chart  
The University of Texas System Cancer Center

Exhibit B Accrediting Agencies

### LIST OF PRINCIPAL PROJECTS BY DEPARTMENT

Exhibit C Biochemistry

Exhibit D Biology

Exhibit E Biomathematics

Exhibit F Epidemiology

Exhibit G Section of Experimental Animals

Exhibit H Molecular Carcinogenesis and Virology

Exhibit I Physics

Exhibit J Anesthesiology

Exhibit K Laboratory Medicine

Exhibit L Developmental Therapeutics

Exhibit M Gynecology

Exhibit N Medicine

Exhibit O Pathology

Exhibit P Pediatrics

Exhibit Q Diagnostic Radiology

Exhibit R Rehabilitation Medicine

Exhibit S Radiotherapy

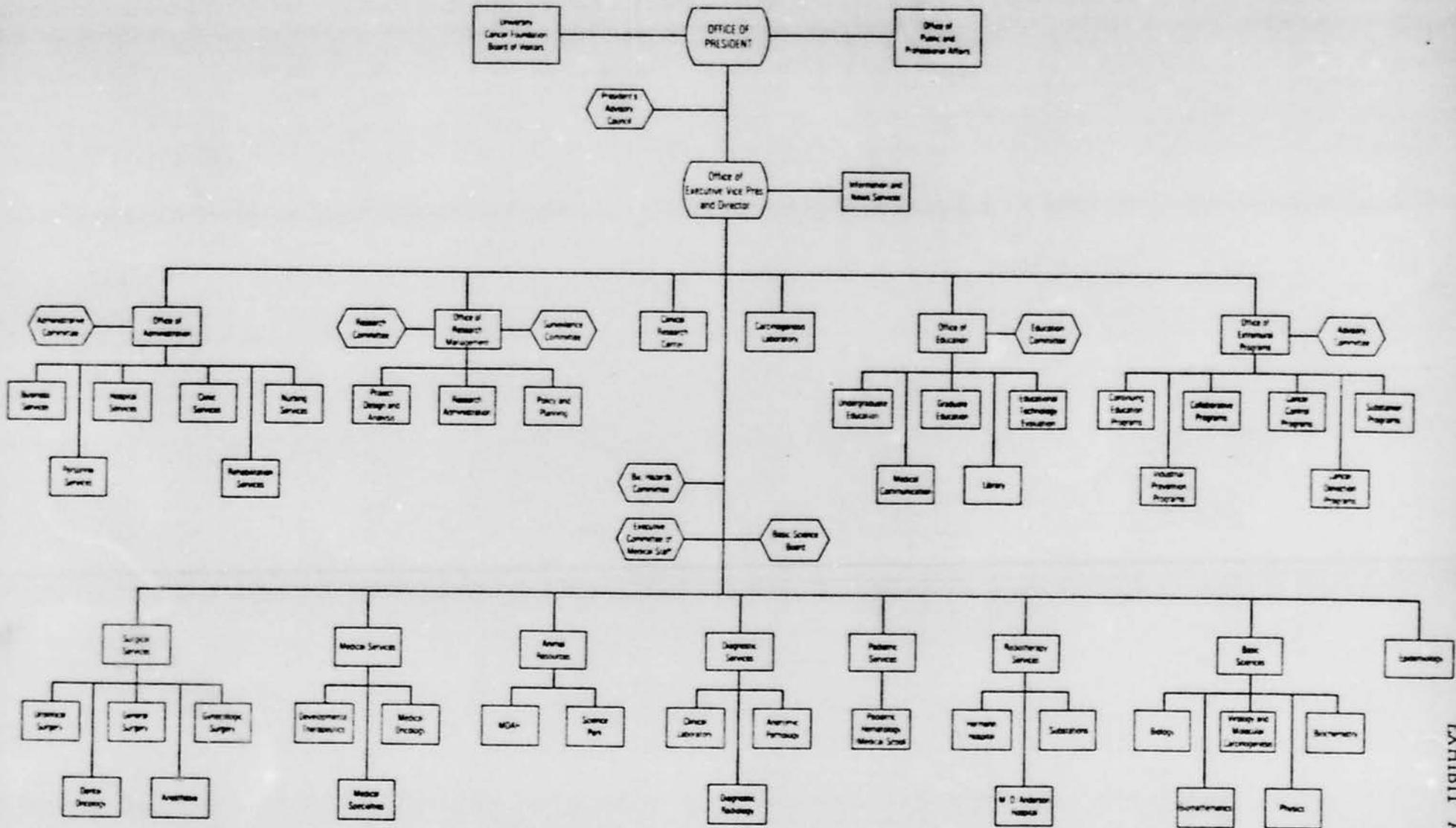
Exhibit T Surgery

Exhibit U Urology

- Exhibit V 6.6 - statistical base for institution
- Exhibit W President's Regulations, Article III
- Exhibit X Education Committee Policy and Organization
- Exhibit Y Cancer Control 9.1

The University of Texas System  
Cancer Center

Organization Chart



## 4.3 ACCREDITING AGENCIES

- 1 American Association for Accreditation of Laboratory Animal Care
- 2 American Association of Blood Banks
- 3 American Boards of Anesthesiology, Internal Medicine, Pathology, Pediatrics, Radiology, Surgery and Urology with the Council on Medical Education of the American Medical Association
- 4 American College of Surgeons
- 5 American Dental Association Council on Dental Education
- 6 American Dietetic Association
- 7 Boards of Schools of Medical Technology, Cytology and Histology (American Society of Clinical Pathologists) with the Council on Medical Education of the American Medical Association
- 8 Committee on Technologist Training of American College of Radiology with the Council on Medical Education of the American Medical Association
- 9 Joint Commission on Accreditation of Hospitals
- 10 National Council on Social Work Education
- 11 Texas State Board of Nursing Examiners

DEPARTMENT OF BIOCHEMISTRY  
List of Principal Projects

Chemistry of Pituitary Hormones and Related Factors

The objective of this program is to increase our knowledge of the chemistry and mode of action of pituitary hormones.

Immunochemical and Immunological Studies on Glycoproteins

The objective of this study is the possible role of the carbohydrate moiety in the transport of glycoproteins across membranes.

Regulation of Enzymic Activities by Metabolites

The aim of this program is to study a few significant regulatory mechanisms, how these mechanisms operate, the extreme within which they are applicable, and the amplification or alteration of effects on other metabolic circuits.

Study on Blood and Urinary Proteins

To study the configuration and constitution of blood plasma and urinary proteins in order to facilitate the understanding of their metabolism and provide data for diagnostic studies.

Biochemical Mechanisms in Action of Antitumor Drugs

The purpose of this work is to establish if possible the detailed mechanisms of action of antitumor agents in experimental animals.

Biochemical Aspects of Carcinogenesis

To elucidate the biochemical steps occurring during the controlled induction of cancer.

DNA Biosynthesis in Neoplasia

To contribute to the definition of the molecular mechanisms and sequence of events that lead to the replication of DNA in mammalian tissues particularly in those tissues undergoing rapid cell division.

The Role of Growth Promoting Factors in Neoplasia

To work out methodologies leading to the demonstration of a vascular (or endothelial) growth factor necessary to survival and growth of transplanted tumors in animals.

DEPARTMENT OF BIOLOGY  
List of Principal Projects

Early Detection of Familial Breast Cancer

An investigation of the genetic aspects of breast cancer and the possibility of genetic (and clinical) subtypes of the disease.

Genetic Variation in Enzymes which Modify Chemical Carcinogens

A study of the genetic variation in human enzymes that metabolize hydrocarbon carcinogens, and the relationships of these genetic patterns to lung cancer and colon cancer. The study is being extended to other human tumors.

Nucleases in Human Genetics and Cancer

To measure the activities of enzymes which are capable of breaking down polynucleotides, both RNA and DNA, to determine whether such activities are correlated with essential metabolic functions or altered in disease.

Regulation of Mitochondrial DNA Replication

This research project is focused on the control elements operative at the molecular level in regulating mitochondrial DNA replication.

Effects of Antitumor Antibiotics, DNA Intercalators, and Aniline Dyes on Mitosis and Chromosomes

The effects of various chemical agents which are capable of causing chromosome breakage (clastogens) and the mechanisms of action are important in understanding mutagens and chemotherapy. This project plans to investigate some of the antitumor antibiotics and DNA intercalating agents.

Induction and Electrophoretic Detection of Mutations in Mammalian Cell Lines

To develop a new system for determining the mutation frequency in mammalian cells under a variety of conditions and for analyzing the nature and inheritance of somatic cell structural and control loci variants.

RNA Tumor Virus Replication

To identify and characterize the sarcoma virus protein(s) concerned with the malignant transformation of cultured fibroblastic cells. To study Rauscher leukemia virus-specific protein biosynthesis, characterize the products, and relate these findings to the induction of leukemia.

The Isolation and Fractionation of Mammalian Chromosomes

To develop better techniques for the isolation and fractionation of chromosomes into pure preparations of a single chromosome type. Ultimately, to be able to fractionate the karyotype of any organism (especially human) into pure preparations of each chromosome.

## DEPARTMENT OF BIOMATHEMATICS

## List of Principal Projects

Developments in Information Systems

Computer software is being developed for more efficient and convenient data entry, management, retrieval and analysis.

Computer Analysis of Human Chromosomes

This project is aimed at providing computational ability to assist the cytogeneticist in the recognition, classification and quantitative analyses of human chromosomes.

Computation of Radiation Dosimetry

This program supports the research and development involved in the computation of radiation dosimetry for a variety of radiotherapy treatments.

Statistical Office for the Southwest Oncology Group

The Statistical Office of the Southwest Oncology Group (SWOG), a cooperative cancer chemotherapy clinical trials study group, provides design and analysis of over 50 ongoing clinical studies.

Cellular Kinetics and Applications to Cancer Therapy

Knowledge of the cell cycle kinetics of normal and tumor cells is being exploited through mathematical models to develop more optimal therapy plans.

Planning and Analysis of Clinical Studies

In this program careful biostatistical guidance is given to a large number of ongoing clinical studies at M. D. Anderson Hospital and Tumor Institute in a variety of types of cancer with emphasis of use of design and analysis of these studies to extract as much useful information as possible employing as small a number of subjects as feasible.

Statistical Methods for Survival Time Studies

Length of survival or disease free interval is a common criterion used in cancer clinical studies for evaluating the benefit from treatment; therefore, this program is concerned with the development of statistical methods for the characterization and analysis of survival studies.

Economic Considerations of Cancer Screening

Mathematical models are being employed to determine the most effective, yet economically feasible, strategies for scheduling cancer detection screens such as the Pap smear.

DEPARTMENT OF EPIDEMIOLOGY  
List of Principal Projects

Epidemiological Research into Socioeconomic and Etiological Factors of Cancer in Texas at the County Level

To study cancer as it exists, to record pertinent items of information which can be obtained concerning patients with cancer in specific population groups, and to evaluate these facts in relation to one another in search of a common denominator.

Incidence, Morbidity, Mortality, and Natural History of Various Types of Cancer by Three Major Ethnic Groups in Texas.

To determine incidence, survival, natural history, and differences of various types of cancer by race and geographic area at the community level.

Analysis of U. S. Mortality Data

To study the interrelationships and profiles of cancer mortality in the U. S. over time by geographic region, and by states within the regions, to the total region as they relate to demographic factors.

Geographic Differences in Mortality Patterns

The regional differences in mortality, using ten geographic regions as the basic classification of states, have been analyzed to see what factors (covariates) are measurable by state and are associated with different levels of mortality.

A Statistical Data Management and Coordinating Center for the Tyler Asbestos Workers Program

To develop effective methodologies for medical surveillance and early intervention in the course of asbestos-related lung cancer.

Smoking Cessation Program for Tyler

To organize, implement, evaluate smoking education programs for participants of the Tyler Asbestos Workers Program (TAWP), as well as the general Tyler community.

Exploratory Studies on Cancer Patient Data Control

To develop an operational plan and mechanism to strengthen the Epidemiological and Statistical base of the University of Texas System Cancer Center.

SECTION OF EXPERIMENTAL ANIMALS

List of Principal Projects

Experimental Transmission of the Leukemias of Small Domestic Animals

To establish whether the leukemias of the dog and cat can be transmitted successfully in homologous species or could cross the species barrier by utilizing tissues taken from confirmed clinical cases of malignant lymphoma in the dog and cat.

The Result of Replacement of Partial or Total Collateral Ligaments of the Knee in Dogs by Marlex Mesh

To determine the effect of either partial or total replacement of the medial collateral ligament in dogs with Marlex Mesh.

DEPARTMENT OF MOLECULAR CARCINOGENESIS AND VIROLOGY  
List of Principal Projects

Investigation of the Nature of the Mouse Mammary Tumor-Inducing Agent

Isolation, purification, biophysical and biochemical characterization of the mammary tumor-inducing virus (M. T. V.).

Studies on Spontaneous and Induced Leukemia in Animals

An understanding, based on adequate experimental data on the various types of leukemia of the fowl and of the different types of leukemia in mice may contribute to the formulation of a critical approach to the study of the etiology of at least some types of leukemia in other animals and man.

Studies on Human Leukemia and Solid Tumors

To investigate the possible part played by viruses in the origin of leukemias and lymphoma in man, by the use of electron microscopy, tissue culture and bioassays in suitable animals.

Molecular Relationships of RNA Tumor Viruses and Human Cancer

To determine the relatedness of various animal RNA tumor viruses, and to apply this information to human neoplastic cell systems for the purpose of detecting virus-related genetic information in human tumor cells.

Chemical-Viral Co-Carcinogenesis

To examine the ability of selected chemical carcinogenes to activate integrated exogenously introduced murine sarcoma genomes and/or integrated endogenous viral genomes in rat and mice cells and determine the oncogenic potential of resultant virions.

DEPARTMENT OF PHYSICS  
List of Principal Projects

Research Related to Fast Neutron Radiation Therapy

Intercomparisons between the United States and Japan Fast Neutron Beam Dosimetry for the purposes of contributions to our understanding of basic neutron dosimetry.

High Resolution Thermal Denaturation of Eukaryotic DNA

A very promising method for characterizing the total DNA of eukaryotic organisms. Appropriate variations of the basic technique of thermal denaturation make it possible to distinguish between randomly repeated sequences and those that are interspersed.

Structure of Mammalian and Other Chromosomes

Various biophysical tools and techniques are used to determine the molecular arrangement and architecture of interphase and mitotic chromosomes.

Dosimetry Related to Interinstitutional Clinical Trials

This program is to develop methods and carry out the quality control of physics dosimetry in interinstitutional clinical trials involving radiation therapy.

Radiation Effects on Surface and Internal Cellular Ion Distributions

To determine the radiation effects on surface and internal cellular ion distributions through quantitation of bound antibodies on the surface of intact cells.

Hyperthermic Effects of DNA Strand Break Rejoining

To investigate DNA repair following hyperthermic treatment temperatures in the 41-43°C range.

Cell Cycle Dependence of Anticancer Drug Cytotoxicity

To characterize the cell cycle phase dependent cytotoxicity of new anticancer drugs, both in vitro and in vivo.

DEPARTMENT OF ANESTHESIOLOGY  
List of Principal Projects

Maintenance of Circulatory Homeostasis in Surgery

To investigate existing techniques and perhaps developing new ones which will provide the development and utilization of a method for routine determination of circulatory volumes both for immediate use as a clinical tool, and subsequently, as a baseline measurement for new tests and techniques. These tests will be utilized to clarify specific problems involved in maintenance of circulatory homeostasis.

The Effect of Various Chemotherapeutic Protocols on Pseudocholinesterase Activity

To provide additional knowledge for proper anesthetic management of cancer patients requiring surgical therapy. Unnecessary postoperative, drug induced respiratory depression can be avoided in the cancer patient where depressed pseudocholinesterase enzyme activity is known or can be anticipated due to concurrent therapeutic procedures the patient may be receiving at the time of surgery.

Prolonged Anesthesia

To study metabolic and physiological effects of prolonged anesthesia produced by endotracheal administration of nitrous oxide - oxygen mixtures supplemented by intermittent skeletal muscular relaxation from intervaneous succinylcholine in the dog.

DEPARTMENT OF LABORATORY MEDICINE  
List of Principal Projects

Cytological Studies in Human Leukemia

A broad multidisciplinary undertaking aimed at the recognition and identification of meaningful cytological parameters which could be successfully utilized as diagnostic or prognostic tools for the clinical management of the leukemic patient.

Immunological Studies in vitro in Human Sarcomas

Investigation of a tumor-associated antigen found in an established human neurogenic sarcoma cell line which is common to various sarcoma tumors.

Antitumor Agents on Human Colon Carcinoma Cells

Morphological, functional, cytogenetic characterization, and analysis of growth kinetics were performed for a human colon carcinoma cell line (line LoVo) established in 1972.

Early Detection of Sepsis by Gas Chromatography

Gas chromatography procedures were established to determine volatile and non-volatile metabolic end-products of microbial metabolism in blood culture media used for the radiometric detection of growing microorganisms.

Growth Kinetics of Plasma Cell Myeloma

To determine the following kinetic parameters of human neoplastic plasma cells before and after chemotherapy; (a) length of the cell cycle (b) fraction of cells in DNA synthesis phase, (c) population growth fraction, and (d) population doubling time, and to analyze the data in order to estimate the possible cell loss factor, and to devise mathematical models suitable for investigation of different chemotherapeutic regimens.

Anticancer Drug Effects on in vitro Human Cells

To investigate the effects of chemotherapeutic drugs at the cellular level in order to provide a scientific rationale for the development of clinical chemotherapeutic protocols.

Detection of Candidal Infection in the Compromised Host

To develop methods which will lead to earlier diagnosis of systemic fungal infection, primarily candidiasis, in the cancer patient.

Biochemical Markers of Cancer

To develop laboratory test procedures which are useful for the early detection of cancer and for the clinical management of patients with cancer.

Long Term Preservation of Platelets

To develop and implement methods for improved long-term preservation of the presently obtainable blood resources which could lead to better utilization of blood donations.

DEPARTMENT OF DEVELOPMENTAL THERAPEUTICS  
List of Principal Projects

New Combination Chemotherapy of Acute Leukemia

To study the effects of combination chemotherapy and immunotherapy on the duration of remission and survival in patients with acute leukemia.

Evaluation of Phase I Chemotherapeutic Agents in Patients with Malignant Diseases

To advance the therapy of patients with metastatic malignancy through the introduction of new chemotherapeutic agents which from pre-clinical studies suggests possible efficacy in the human tumors.

Pharmacologic Studies of Cancer Chemotherapeutic Agents in Man

Studies of the absorption, transport, distribution, binding, excretion, metabolism, pharmacokinetics and toxicology of cancer chemotherapeutic drugs of clinical interest will be performed utilizing standard pharmacologic techniques.

Clinical Immunology

To apply basic observations relating to oncologic immunology to the clinic. A multi-faceted investigation of the relationship between the host and his tumor, so that immunological methods can be applied to the diagnosis, evaluation and treatment of malignancies.

Non-Specific Active Immunotherapy in Cancer Patients with BCG and Other Non-Specific Immunological Stimulants

To determine if; 1) systemic BCG will augment general immune response in cancer patients, 2) specific tumor immunity (both humoral and cell mediated) can be augmented by systemic BCG, 3) optimal dosage and schedule for administration of BCG, and 4) BCG immunization will increase the tumor free interval in a selected group of cancer patients.

Adjuvant Immunotherapy to Surgery in Colorectal Cancer

To evaluate the effect of non-specific adjuvant immunotherapy on the relapse rate, disease-free interval, and overall survival of patients with colorectal cancer (Dukes C classification) following "curative" surgery. To compare between the immunoadjuvant potency of BCG and *C. parvum* both in terms of their effect on the clinical outcome and on delayed hypersensitivity skin reaction in these patients.

Therapeutic and Prophylactic Granulocyte Transfusions

To improve the efficiency and effectiveness of platelet replacement transfusion for the control of hemorrhage. To supply the supportive therapy necessary for intensive chemotherapy and to define the role of this therapy in improving the response to chemotherapy.

DEPARTMENT OF GYNECOLOGY  
List of Principal Projects

Chemotherapy of Advanced Ovarian Cancer

To conduct an investigation in order to evaluate the effectiveness of chemotherapy, irradiation and a combination of both of these modalities in the treatment of metastatic carcinoma of the ovary where surgical excision is not applicable.

Radiation and Chemotherapy in the Treatment of Carcinoma

To determine the relative value of x-ray therapy and chemotherapy in early cancer of the ovary and to determine the value of x-ray therapy plus chemotherapy or irradiation therapy alone.

Chemotherapy of Ovarian Cancer

To develop agents other than alkylating agents for the treatment of Stage III and IV ovarian carcinoma (FIGO classification). This includes comparative studies between alkylating agents and other drugs thought to have some benefit in the treatment of this cancer.

Non-Specific Immunotherapy (Corynebacterium parvum), Combination Chemotherapy and Extended Field Irradiation Therapy in the Treatment of Squamous Carcinoma of the Cervix

To determine whether Corynebacterium parvum augments the therapeutic effectiveness of irradiation therapy or chemotherapy in carcinoma of the cervix (Stages IIB, III, and IV).

Chemotherapy of Recurrent Metastatic Squamous Carcinoma of the Cervix - Randomized Trial of Single Agents

A random prospective study of three single agents (Cyclophosphamide, Hexamethylmelamine, Doxorubicin) in treatment of advanced squamous carcinoma of the cervix.

Adjunctive Immunotherapy in Gynecological Cancer

To analyze whether or not specifically directed immunotherapy can, in addition to conventional surgical and radiotherapeutic procedures, prevent the recurrences and metastases in two well-defined clinical situations.

DEPARTMENT OF MEDICINE  
List of Principal Projects

Experimental Clinical Chemotherapy of Diseases of the Hematopoietic and Lymphatic Systems

Two basic lines of clinical investigation: (1) relatively prolonged studies of patients receiving chemotherapy, according to fixed patterns stipulated by protocol and (2) relatively short screening studies of new agents, or new combinations of agents, yet untried in the management of these diseases.

Experimental Clinical Chemotherapy of Solid Tumors

This program has been initiated with two variables; intravenous hyperalimentation and cis-platinum.

Endocrine-Metabolic Evaluation of Neoplasia

To study alterations in tumors of endocrine and nonendocrine origin by chemotherapeutics, isotopics, and other agents both from the standpoint of their hormone production and the selective destruction of tumor cells.

Bone Marrow Kinetics

This program attempts to clarify the mechanisms influencing bone marrow homeostasis, particularly when there is decreased marrow function. A major goal is to restore bone marrow activity in clinical situations characterized by marrow damage or infiltration by malignant cells.

Regional Pulmonary Function Studies

Regional pulmonary function studies using Xenon-133 gas in the preoperative evaluation of lung cancer patients.

Infectious and Immunologic Diseases in Patients with Cancer

To prepare tumor cell vaccines and immunological monitoring of the responses of therapy.

Radionuclide Localization in Neoplasma

Investigation of the fundamental mechanisms by which radionuclide labeled compounds are taken up by experimental tumors and clinical evaluation of radiopharmaceuticals localizing in neoplasm.

Tissue Culture Studies of Human Breast Tumors

Tissue culture studies into the fields of biochemistry, immunology and cytogenetics.

DEPARTMENT OF PATHOLOGY  
List of Principal Projects

Investigation of Possible Correlation Between Morphological and Epidemiological Characteristics of Breast Cancer

To determine whether there are morphologic differences between the tumor produced by patients in families with established breast cancer pedigrees and those occurring in patients lacking positive family histories.

A Clinicopathologic Study of Small Cell Tumors

To study small cell neoplasms using light and electron microscopy, and to correlate the findings with available clinical data.

Phenotypic Analysis of Chemical Carcinogens

To determine the phenotypic pattern of hepatocytes during and subsequent to their exposure to chemical carcinogens, and to determine if such alterations play an obligatory role in malignant evolution.

Analysis of Cellular Events in Chemical Carcinogenesis

To develop carcinogenic regimens aimed at reducing the complexity of chemical carcinogenesis by eliminating many of the non-carcinogenic effects.

The Biology of Neoplastic Liver Lesions in Mice

To determine the nature and significance of the lesions of the mouse liver which appear spontaneously in strains with a high risk for hepatocellular carcinoma (HC) and then those with a low risk of spontaneous evolution, following exposure to known chemical hepatocarcinogens.

Chromatin Structure of Normal and Malignant T Cells

To exam the conformational alterations in chromatin structure that occur upon interaction with specified non-histone chromosomal proteins.

Analysis of Chromatin During Chemical Carcinogenesis

To increase the understanding of the mechanisms by which chemical carcinogens cause stable alteration in gene expression leading to the complex of phenotypic characteristics constituting malignancy.

DEPARTMENT OF PEDIATRICS  
List of Principal Projects

Cancer Chemotherapy and Investigative Therapeutics in Children

This program develops Phase I, II, and III studies in multimodal therapy in the treatment of children. Separate thrusts are on solid tumors, leukemias, and childhood lymphomas. Advanced cancers are treated. However, many treatment regimens are developed with curative intent.

Clinical Documentation of Malignant Diseases in Children

The lessons from the natural history for the spectrum of cancer in children, especially as they are found in long-term survivors are evaluated. The genetics of cancer is a major clue to the etiology of cancer.

Mental Health Aspects of Cancer in Children

The ways in which the whole child can be given care is explored and evaluated. This research and evaluation program is developed to create The Truly Cured Child and not just a biologically cured one.

Diagnosis, Treatment and Prevention of Infections in Children with Cancer

The need to evaluate newer antibiotics in the child patient is met through this clinical research program.

Nutrition in Childhood Cancer

Laboratory investigations and clinical trials evaluate the interrelationships of Diet, Nutrition, and Cancer. Parenteral alimentation is stressed but so are laboratory evaluations of non-glucose carbohydrates as energy source.

Immunology of Lymphoid Malignancies of Childhood

The immunological classification of lymphoid malignancies has allowed a new more refined nosology and thereby a therapeutic thrust more tailored to specific subtypes of leukemia and lymphoma.

Pediatric Bone Marrow Transplantation

Bone marrow transplantation is being investigated as a mode of therapy in childhood leukemia and aplastic anemia, both autologous and allogeneic.

DEPARTMENT OF DIAGNOSTIC RADIOLOGY  
List of Principal Projects

Roentgenography of the Breast

To investigate the various methods of roentgenography with the paramount aim to establish the best technical factors in production of satisfactory roentgenograms for diagnosis of breast lesions.

Radiomammography with Less than 150 mr per Exposure

To develop a mammographic imaging system, phantom materials and test objects extensively to assess the quality of imagery as the radiation exposure is reduced.

New and Improved Techniques of Intervention Radiology

To improve existing methods and investigate newer techniques to be utilized in intervention radiology especially as it applies to the cancer patient.

Splanchnic Vasodilation as an Aid for Tumor Diagnosis

To investigate and compare the use of various vasodilators to improve the angiographic visualization of the splanchnic circulation as an aid in the diagnosis of abdominal neoplasms.

Treatment of Bleomycin Induced Canine Pulmonary Pneumonitis and Fibrosis

To evaluate the use of colchicine in treating Bleomycin induced canine pneumonitis and pulmonary fibrosis.

Transcatheter Splenic Arterial Occlusion - An Experimental Animal Study

To evaluate and compare in dogs the effects of three different methods of transcatheter splenic arterial occlusion and to investigate the potential clinical application of these techniques to depress splenic function as a pre-operative technique to facilitate subsequent surgery on in cases of hypersplenism where a splenectomy would be contraindicated.

Intervention Radiology in the Treatment of Ischemia

To investigate the application of new vasodilating drugs in treating ischemic disease with particular emphasis on the splanchnic and peripheral circulation.

## DEPARTMENT OF REHABILITATION MEDICINE

## List of Principal Projects

Development of Comprehensive Rehabilitation Procedures in the Treatment of the Cancer Patient

To develop a comprehensive program of physical and occupational therapy to counteract the changes produced either by the disease or the treatment thereof.

Shoulder Dysfunction Following Radical Neck Surgery and/or Irradiation

To determine if the shoulder dysfunction subsequent to the radical surgery procedures could be corrected and/or prevented by a combined program of physical and occupational therapy and the use of an orthosis.

Gait Deviations and Joint Derangement as a Result of Surgery and/or Irradiation

To determine the gait defects that occur in patients with cancer of the hip, leg, or abdomen, such as soft tissue sarcomas, chondrosarcomas, or lipomas.

Prevention of Scoliosis in Children who have Wilms' Tumor

To evaluate the effectiveness of a program of therapeutic exercises for children who have Wilms' tumor.

Utilization of Transcutaneous Electrical Stimulation to Reduce Pain in Cancer Patients

A non-addictive, noninvasive method for controlling pain in cancer patients with a combination of specific physical and/or occupational therapy modalities and application of a transcutaneous nerve stimulator (TNS) to be worn 24 hours a day.

A Natural History Approach to the Identification, Classification and Evaluation of Medical, Personal, and Vocational Problems of Rehabilitation in Cancer Patients

To begin obtaining a natural history of the stages and molar events in the rehabilitation career of persons with cancer.

Evaluation of a New Hip Knee Joint Mechanism for an Endoskeletal Type Hip Disarticulation Prosthesis

To compare a newly developed hip-knee joint mechanism for an endoskeletal type hip disarticulation prosthesis with some others now in use which have not been completely satisfactory due to certain limitations.

DEPARTMENT OF RADIOTHERAPY  
List of Principal Projects

Correlation of Tumor-Dose-Time Relationships to Tumor Response and Complications

To determine the correlation of clinical response with the factors of volume, treatment times, and tumor doses.

Dose Levels for Interstitial Radium Implants for Squamous Cell Carcinoma

To establish the reason for post-radiation necrosis and recurrences after implants of radioactive sources for the treatment of 'curable' cancer of the oral cavity, in order to attempt the reduction of its incidence.

Correlation of Tumor-Dose-Time Relationships in Radiotherapy of Squamous Cell Carcinomas of the Oropharynx

To obtain maximum control rates with minimum complications. With dosimetry, both for external beam and interstitial intracavitary radium therapy, which has been in use for several years, it allows an accurate determination of the dose received by the tumor and the normal structure.

Supervoltage Roentgentherapy in the Management of Squamous Cell Carcinoma of the Oropharynx

To evaluate supervoltage therapy in the management of the squamous cell carcinomas of the oropharynx.

Whole Neck Irradiation of Lymphatics in the Anaplastic Tumors of the Head and Neck

To establish the effectiveness of whole neck irradiation in patient's with far advanced tumors of the head and neck.

Evaluation of Fast Neutron Therapy in Head and Neck Cancer

Specifically to show whether fast neutron therapy can 1) improve the local control rate of bulky head and neck cancers, or 2) decrease the incidence of radiation complications and bothersome sequelae.

Clinical Investigation of the Place of Electron Therapy in the Management of Cancer

To determine the particular or unique place of electron beam therapy in the destruction of malignant cells.

Electron Beam Irradiation of Cervical Lymph Nodes

To eradicate subclinical disease in the lymphatics of the neck in patients with primary cancers of the upper respiratory and digestive tracts.

DEPARTMENT OF SURGERY  
List of Principal Projects

Perfusion of Extremities and Organs with Chemotherapeutic Agents by Means of Vascular Isolation in the Treatment of Malignant Tumors

Isolation-perfusions performed to provide regional chemotherapy as primary treatment for malignant disease of an extremity or for control of advanced disease.

Serum Tyrosinase in Patients with Malignant Melanoma

To develop a serum tyrosinase assay as a specific test for malignant melanoma.

Immunological Studies of Patients with Solid Tumors

To examine various immunological properties of several peptides as the basis for their possible use as clinical anticancer agents.

Polyamine Analysis in Cancer

To examine the value of quantitative polyamine determinations as markers of human cancer and to establish the correlation between the alterations of polyamine excretion levels and course and status of tumor. In addition, studies with established tissue culture cell lines are carried out to extend our information base concerning mechanisms and relevance of polyamines in cancer.

Adjuvant Chemotherapy for Osteosarcoma in Adults

This program is implemented in individual patients immediately after surgical amputation-before clinical and roentgenological evidence of metastases are apparent.

The Therapy of Bronchogenic Carcinoma

To conduct studies of intensive multidisciplinary therapy of patients with bronchogenic carcinoma and to determine the efficacy of each of a number of therapeutic approaches, the possible relationship to the morphological type of cancer, and the clinical stage of the disease as well as the influence of any concomitant pathology.

Adjuvant Therapy of High Risk Head and Neck Carcinoma

A prospective randomized trial comparing the addition of chemotherapy or of chemoimmunotherapy to a control population.

DEPARTMENT OF UROLOGY  
List of Principal Projects

Evaluation of Diagnostic and Treatment Modalities for Prostatic Carcinoma

To evaluate nearer diagnostic approaches for the detection of prostatic carcinoma and study the possible benefits of various drugs and techniques for control of the disease.

Chemotherapy for the National Prostatic Cancer Project

To determine the usefulness of single chemotherapeutic agents in the treatment of advanced prostatic carcinoma. It is believed that such a program will lead to the effective combination of hormonal and cytotoxic therapy for all stages of this disease.

Adriamycin Vs VM26 - Adriamycin in Metastatic Bladder Carcinoma

Adriamycin combined with VM26 is used in a randomized trial to evaluate the effects of this combination chemotherapy in metastatic transitional carcinoma from the urinary bladder.

Topical Mitomycin C Therapy for Superficial Urinary Bladder Tumors (Stage O/A)

To determine the effect that intravesical instillations of Mitomycin C have upon low-grade, low-stage (stage O/A) transitional cell carcinoma of the urinary bladder.

Clinical Trial of Cis-Diaminodichloroplatinum (DDP: NSC 119875) in the Treatment of Metastatic Renal Carcinoma

To determine the efficacy of cis-platinum (DDP) in patients with metastatic renal carcinoma.

Percutaneous Transfemoral Selective Renal Artery Occlusion, Nephrectomy and Medroxy Progesterone Acetate for the Treatment of Metastatic Renal Carcinoma

To determine the effects of combined percutaneous selective renal artery occlusion, nephrectomy and medroxy progesterone acetate therapy on the survival of patients with metastatic renal carcinoma.

Chemotherapy for Metastatic Transitional Cell Carcinoma

To investigate the efficacy of individual or combination chemotherapeutic agents in the treatment of metastatic transitional cell carcinoma arising primarily from the renal pelvis, ureter, or urinary bladder.

- 6.6 Does the institute have a statistical base for evaluation of results of its program activities, such as records which standardize disease classification to enable exchange of information between institutions. Briefly discuss.

The Department of Epidemiology, founded in 1948, has an established role in the Institution. Currently it is comprised of a staff of 58 persons. The approach of the Department is that of medical epidemiology. The Head of the Department is a physician, board-certified in Preventive Medicine with a Master's Degree in Epidemiology. The staff is multi-disciplinary; advanced degrees held by staff members include a Ph.D. in Computer Science, a Ph.D. in Biomathematics, and a Master's Degree in Epidemiology, Statistics, Computer Science-Occupational Health, Nutrition, and Community Health. Two additional Masters-level personnel in Sociology and Health Education have been added to the staff with the initiation of the Department's program in Tyler, Texas.

The Department currently maintains the Institution's Cancer Patient Data System containing 114 data items on each of 130,000 patients who have been registered at the M. D. Anderson Hospital since 1944. Since June 1975, the Department has extensively revised the Patient Data System to attain greater flexibility in processing and analysis. In this new system the record for each patient contains a basic set of demographic items (computer-generated and coder-abstracted) with repeating groups of diagnostic and treatment information (e. g., primary and metastatic sites, and associated diseases) added as they develop. Computer generated letters are sent annually to former patients who need special follow-up. Patient follow-up procedures are aided by monthly computer tape matches with the Texas Bureau of Vital Statistics which can identify former M. D. Anderson Hospital patients who have died within the State of Texas. Similar arrangements with Oklahoma and New Mexico have implemented. The combination of computer letters and computer death matches aids in maintaining approximately 90% annual follow-up.

The day-to-day work of the Department includes aiding physicians and scientists in locating and analyzing appropriate data from the large medical data base. Upon request, house staff, fellows and attending physicians are provided with the computer lists of patients, aided in the development of coding forms, and are given statistical guidance in the analysis of their data.

Recently, the Department has contributed to the development of an International Cancer Patient Data Exchange System, a project of the

Committee on International Collaborative Activities (CICA) of the International Union Against Cancer. The purpose of this CICA program is to: encourage the development of uniform nomenclature, classification, staging, and end results reporting system at the international level; and establish a system of data collection which would enable absolute international comparisons to be made. To these ends, the Department of Epidemiology is assisting the European data collection and analysis by installing the Epidemiology Department's Cancer Patient Data System in the data center at Brussels. A 100-page coding manual defining 25 basic data items and the elements of the TNM system have been prepared by the Department. This manual has been accepted as the basis of data collection by the eleven participants. Emphasis was placed on internationally developed schemes for classification which include International Classification of Diseases for Oncology, UICC Classification of Malignant Tumors, the American Joint Committee for Cancer Staging and End Results Reporting.

The Department has worked with the Association of American Cancer Institutes (AACI) in the definition of the basic set of data items for interinstitutional data sharing. Currently all items of information agreed upon for the AACI Comprehensive Cancer Patient Data System (CCPDS) are included in the Department's code sheets and patient record structure. Local site and histology codes are presently being converted to the ICD-O codes, and geographic location codes are being converted to Surveillance, Epidemiology and End Results (SEER) codes. These efforts constitute an integral part of the Department's policy to be compatible with the CCPDS.

The Department of Epidemiology is also engaged in a number of projects to assist other institutions in establishing registry systems by providing programming and statistical support. The Statistical Data Management and Coordinating Center was established to provide support to the Tyler Asbestos Workers Program located at The University of Texas Health Center at Tyler. The Department is also furnishing The University of Texas Medical Branch Cancer Center at Galveston with a package of data base and file management programs for its tumor registry.

## EXCERPT FROM PRESIDENT'S REGULATIONS , dated October 23, 1970

**ARTICLE THREE**  
**The Division of Education**

- Section A.** The Division of Education shall be charged with the dissemination to students, the medical and related professions, and the public, of information concerning the occurrence, causes, treatment, relief, cure and prevention of neoplastic and allied diseases, including affiliation with, and participation in, all appropriate teaching functions of The University of Texas System. Its duties shall be performed in coordination with those of the Divisions of Research and Patient Care Activities.
- Section B.** The administrative head of the Division of Education shall be the Associate Director (Education) who shall be appointed and removed by the President. He shall be responsible to the President for the supervision of all education and training activities, and the recommendation of pertinent policies, procedures and fiscal arrangements. He shall implement professional appointments and programs in conjunction with the various department heads and shall prepare a plan for continuing education of medical and allied health professional personnel.
- Section C.** There shall be an Education Committee, appointed by the President, and responsible to the administrative head of the Division of Education, whose principal function is to advise that officer on correlated professional educational activities of the staff in the various services and departments of the hospital. The Committee shall be composed of the heads of the following departments or their designated alternates: Biochemistry, biology, biomathematics, developmental therapeutics, epidemiology, medical communications, medicine, nursing, anatomical pathology, clinical pathology, pediatrics, physics, publications, diagnostic radiology, radiotherapy, rehabilitation medicine, research medical library, surgery, and virology. Such other departments of similar rank as are later organized shall also be similarly represented on the Committee. Ex officio membership shall be as provided in the "Education Committee Policy and Organization" document.

Three of the subcommittees of the Education Committee shall be: (1) The Educational Policy Committee of the Graduate Faculty, appointed by the President, which shall be advisory to the Education Committee and the head of the Division of Education on all matters pertaining to the instruction and training of students of The University of Texas Graduate School of Biomedical Sciences who are working at the Anderson Hospital for academic credit toward advanced degrees; (2) the Residency Training Committee, selected by the Executive Committee of the Medical Staff, which shall be advisory to the Education Committee and the head of the Division of Education in the specific area of clinical residency and fellowship training; and (3) the Committee on Continuing Education of Medical and Allied Health Professional Personnel.

**Section D.** The head of each department and the chief of each section in the Tumor Institute and of each service in the hospital shall be responsible for the educational program in his area of professional activity. The execution of these programs in accordance with the general policies, procedures and recommendations of the head of the Division of Education is essential to effect the necessary coordination with other departments, services and staff divisions of both this institution and affiliated institutions.

**Section E.** Periodic scientific and medical reviews, seminars, symposia, refresher and continuation courses shall be conducted in conjunction with the other units of The University of Texas at Houston, the Texas Medical Center, the medical schools, hospitals, and tumor clinics of the State of Texas.

October, 1975

EDUCATION COMMITTEE POLICY AND ORGANIZATIONI. Purpose

The Education Committee, appointed by the President, serves in an advisory capacity to the Assistant Director, Education and to the President on matters concerning correlated professional/educational activities of the staff in the various services and departments of the institution.

Written reports and recommendations of the Education Committee will be submitted to the President's Advisory Council through the Assistant Director, Education.

II. Membership

The Education Committee is composed of the heads of all basic science and clinical departments, the departments of Nursing, Epidemiology, Extramural Programs, Medical Communications, Research Medical Library, Publications, and the School of Allied Health of The University of Texas Health Science Center, or their designated alternates; three members-at-large; all Associate and Assistant Directors (Ex Officio without vote), the Vice President for Business and Hospital Affairs (Ex Officio without vote), and the Director, Continuing Education of The University of Texas Health Science Center (Ex Officio without vote).

The three members-at-large shall be elected annually in August from the full-time staff of the instructional departments of the institution. Procedure for their nomination and election shall be that listed below for nomination and election of officers of the Education Committee. They will serve for a period of one year and may be elected for an additional year; they will have the privileges and responsibilities of full members.

The retiring Chairman of the Education Committee, when he is a member-at-large, will continue to serve in the capacity of a member-at-large for one year following the termination of his office to maintain continuity of the policies instituted by the Committee.

III. Officers

The Education Committee shall have a Chairman and a Vice Chairman. At the June meeting the retiring Chairman shall appoint a Nominating Committee consisting of three members of the Education Committee. They shall make recommendations for the Office of Chairman and Vice Chairman, which will be presented to the Education Committee at its July meeting. At this meeting additional nominations may be offered from the floor by any member of the Education Committee. The slate of nominees for each office will be published in the minutes of the July meeting, and the Chairman and Vice Chairman of the Education Committee will then be elected prior to the August meeting. A simple majority of the members of the Education Committee will be required for election. Results of the election will be submitted for approval by the President. The Chairman

will serve for a period of one year and may be re-elected for an additional term. The Chairman shall represent the Education Committee at the President's Advisory Council. He will appoint the chairmen of all subcommittees of the Education Committee with the exception of the Clinical Conference Program Committee (appointed by the President) and the Residency Training Committee (appointed by the Executive Committee of the Medical Staff). The Chairman will request reports from subcommittee chairmen to be entered as agenda items for either regular or special Education Committee meetings. The Vice Chairman will serve for a term of one year and may be re-elected for one additional term. He will assist the Chairman in all matters and function in the capacity of Chairman in the absence of the latter.

#### IV. Protocol for Meetings

##### A. Regularly scheduled meetings

The Education Committee will meet regularly on the first Monday of each month unless otherwise designated by the Chairman. Notification of change of date or time of a regularly scheduled meeting will be distributed to all members and alternates at least 10 days prior to each regularly scheduled meeting.

All items to be included on the agenda of a regularly scheduled meeting are to be submitted to the Chairman at least 10 days prior to the meeting. The agenda is prepared and circulated by the Office of Education along with appropriate documentation and the Minutes of the previous meeting to members and alternates at least 5 days prior to the next regular meeting. A quorum shall consist of 50% of the regular members or their designated alternates for any regularly scheduled meetings.

##### B. Special Meetings

Special meetings of the Education Committee may be called at any time by the Chairman; however, notification of a special meeting, its agenda and all relevant documentation must be distributed to the members and their alternates at least 4 days prior to the meeting. Items included on the agenda of a special meeting will be limited to those pertaining directly to the business for which the meeting is called. Matters not published on the agenda of special meetings may not be discussed at the meeting. A quorum shall be 50% of the members and alternates. The minutes of all special meetings will be circulated to all members and alternates within five days following the meeting, and always before the next regularly scheduled meeting.

Subcommittee reports will be included on the agenda for all regular meetings. Minutes of the previous meeting will be circulated to members and alternates at least 5 days prior to the next meeting.

V. Committees and Subcommittees Reporting to the Education Committee

A. Residency Training Committee advises the Assistant Director, Education and the Education Committee concerning Clinical fellowship and residency training; it also reports to the Executive Committee of the Medical Staff, which appoints the Residency Training Committee.

B. Annual Clinical Conference Program Committees are appointed by the President upon recommendation of the Education Committee; chairmen are responsible for program development, preparation of grant applications for support of the annual meetings, and planning and execution of the meeting itself. Each Program Committee serves also as the Heath Award Committee, for the purpose of recommending candidates for the Heath Lecture and Award, a feature of each annual conference.

C. Standing Subcommittees

1. Clinical Conference Topic Subcommittee. Considers and recommends topics and program committee membership for each annual clinical conference at least three years in advance of the conference and no later than September of each year.

2. Curriculum Subcommittee for Summer Programs in the Biomedical Sciences. Advises concerning recruitment and appointment of secondary school students of high ability, selected for an annual summer program administered by the Office of Education, and evaluation of the students' work. It meets no less than twice each year generally between January and May.

3. Research Medical Library Subcommittee. Reviews and recommends policies concerning the effective administration of special library projects as an adjunct to educational and research programs of the institution. It meets no less than four times each year.

4. Judging Subcommittee for Clinical Training Research Project Competition. Reviews and judges entries in the annual clinical training research project competition held each June, to select award winners. It meets no less than twice each year, usually in the spring.

5. Stipend Subcommittee for Clinical Fellows and Residents. Reviews and recommends stipend levels and benefits for resident physicians for the effective implementation of recruitment efforts for trainees. It meets no less often than once yearly.

D. ad hoc Subcommittees

These and such other subcommittees as may be named by the Chairman of the Education Committee may initiate suggestions related to their specific areas of responsibility, to be presented to the Education Committee whose evaluation and recommendations will then serve to advise the Assistant Director, Education, and the President.

Composition of subcommittees will be derived from the entire staff by the Chairman of the Education Committee, with the concurrence of the Assistant Director, Education, and approval by the committee. Membership will be reported annually upon request to the Director's office for the annual official list of committee membership.

The Assistant Director, Education and the Chairman of the Education Committee will be ex officio members without vote, of all subcommittees of the Education Committee.

VI. Educational Programs

The head of each department and section in the institution and the chief of each service in the hospital is responsible for the educational program in his area of professional activity. Execution of these programs in accordance with the general policies and procedures of the institution and with the recommendations of the Assistant Director, Education, is essential to effect necessary coordination with other departments, services and staff divisions of both this and affiliated institutions.

The Education Committee will assist in evaluation and review of educational programs so that trainees will have full advantage of all available facilities and talents of the professional staff.

9.1

Cancer Control Advisory Committee to the Office of Extramural Programs.  
 This committee promotes collaboration and cooperation between various agencies constituting the health care sector of Texas and The University of Texas System Cancer Center. It meets on a quarterly basis and is composed of representatives of professional associations, voluntary health agencies, and government offices, as follows: Texas Medical Association (Committee on Continuing Education, Committee on Nursing, Committee on Cancer, Committee on Medical Education, and Joint Practice Committee), Texas Osteopathic Medical Association, Texas Nursing Association, Texas State Department of Health, Texas Cancer Coordinating Commission, Texas Academy of Family Physicians, Texas Chapter - American College of Surgeons, and Texas Division - American Cancer Society. Members participate as informed consumers to provide liaison between institutions, to identify needs, and to participate in the formulation of specific plans for educational programs. Committee membership is being offered to the Texas Department of Human Resources and the Texas Medical Foundation.

#### Oncology Council

This council is composed of two faculty members from each of the academic Health Science Centers at Galveston, Dallas, San Antonio, and Houston that are part of The University of Texas System and from comparable medical institutions within the state. Six working committees were established: 1) inventory, 2) education, 3) cooperative protocol studies, 4) cancer research, 5) uniform data base, and 6) outreach cancer detection and screening clinics.

Examples of programs reflecting cooperative efforts follow:

#### Cancer Control Program for Family Practitioners

This program in cancer control for residents in primary care from community hospitals is offered in two parts: An intra-institutional elective rotation of four to eight weeks through two to four services and extra-institutional programs focusing on all aspects of cancer management in participating community hospitals.

#### Community Radiation Therapy Centers

The University of Texas System Cancer Center is collaborating with eight centers to conduct programs in continuing oncology education, to develop a uniform data base and data management, and to carry out common treatment protocols.

#### Northeast Texas Council of Health Resources

Physicians and nurses from The University of Texas System Cancer Center in cooperation with the Council, a consortium of 15 rural community hospitals, re-

cently completed a series of 60 in-service presentations on cancer management.

#### Education of the Child with Curable Cancer

The Department of Pediatrics and the Division of Extramural Programs are collaborating in developing and locating funding for this program. It will research and demonstrate methods to integrate the child with the handicap of cancer into the educational mainstream through the coordination of hospital-based and hometown educational resources.

#### Cancer Screening and Detection Program for Nurses

This ongoing educational program is designed to provide nurses sponsored by physicians and public health facilities compressed instruction in screening techniques and health education.

#### Dental Oncology Education Program

Dentists selected by eight community radiation therapy centers attended a pilot two-day seminar on methods and procedures for dental care and management of the irradiated head and neck patient given by this institution.

#### Dial Access

Dial Access is a program providing a method of medical consultation by means of tape recorded messages accessible on request through toll-free long distance telephone calls. Future components of the program will utilize and integrate at least two educational approaches: a structured self-instructional syllabus and the pre-post cancer information test.