SEMINAR PRECEDES CONFERENCE

The University of Texas Postgraduate School of Medicine will offer a "Seminar on Dermatopathology" on Thursday, November 12, from 9 a.m. to 5 p.m. The course has 6 hours credit. Although not a part of the Clinical Conference on head and neck tumors at MDAH on November 13 and 14, the seminar has been scheduled for the day preceding it because of the areas of overlapping interest.

Contact The University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25, for details.

RESEARCH EXPANSION AUTHORIZED

The University of Texas Board of Regents, at its October 3 meeting in San Antonio, authorized a building expansion program at MDAH that will add some 70,000 square feet of research space. Cost of construction is estimated at between $2.5 to $3 million dollars.

The expansion program will be accomplished without cost to the State of Texas. Some funds may be obtained from the U. S. Public Health Service.

Approximately 4,050 square feet will be added on each of five floors at the north end of the building over the present supervoltage area. Preliminary plans covering this work have already been prepared.

Some 1,400 square feet will be added on each of four floors over the loading dock area, and about 22,000 square feet per floor will be added on the sixth and seventh floors over the research wing and medical service area. These two additions will be brought before the Legislature at its 1961 meeting.

To complete the architectural plans, finance the building, and finish the construction will require an estimated five years. Architects have been designated for the building additions.

The proposed additions are urgently needed to alleviate a critical shortage of research space. No additional hospital beds are proposed. Additions include animal quarters, space for a carefully selected group of distinguished scientists, and space for teaching pre- and post-doctoral students.

RADIOThERAPY FOR PATIENTS WITH HEAD AND NECK TUMORS

During the MDAH fiscal year ending August 31, 1959, patients received radiotherapy for a total of 334 lesions of the head and neck. Of these 334 lesions, 251 were irradiated by an external source, 75 by an interstitial source and 8 by a combination of external and interstitial sources.

Microorganisms have been irradiated with this apparatus to determine the effect of irradiation on their survival and biological structure. Designed and built at MDAH, the irradiator consists of a high-voltage power supply, a "gun" with an adjustable beam current capable of accelerating electrons up to 180 Kev., isolated irradiation chambers and turntables for the microorganism samples. Samples can be irradiated and removed in five minutes. It is hoped that this method can be used with viruses and tissue cultures also.

ELECTRON GUN IRRADIATOR

PANEL DISCUSSIONS

Scheduled for Clinical Conference

Five panel discussions will be presented at the Clinical Conference, to be held November 13 and 14 in the MDAH auditorium.

An internist, a pathologist, a radiologist and a surgeon will participate in a panel on "Diagnosis of Head and Neck Cancer." This panel presentation will be discussed by Robert L. Brown, assistant professor of surgery at Emory University, Atlanta, Georgia.

Since all patients must be referred by a private practicing physician before being admitted to MDAH, actual diagnosis of a tumor of the head or neck usually has been made by the patient's physician before the patient arrives. Dentists also play an important role in detecting tumors of the head and neck, particularly those in the oral cavity and lesions of the skin.

In the head and neck clinic at MDAH, surgeons and radiotherapists have evaluated carefully the effects of treatment in all cases of head and neck tumors that have been seen at the hospital, and have outlined the preferred treatment for the primary lesion and the metastatic lesions arising from each site. However, these hospital policies are not used as inflexible therapeutic principles.

All aspects of each patient's condition and the stage of the tumor are reviewed before treatment is selected for the individual patient. At MDAH, radiotherapy and surgical resection frequently are combined in treating patients with cancer of the head or neck.

Four different regions of the head and neck will be considered in panel discussions at the Clinical Conference.

Intra-Oral Cavity

"Cancer of the Intra-Oral Cavity" will be discussed by a panel including an epidemiologist, a pathologist, a radiologist, a radiotherapist and a surgeon. The panel presentation will be
At MDAH, the following methods of treatment are used, depending on the site and stage of the cancer in the intra-oral cavity: interstitial radium therapy alone or combined with external supervoltage roentgen therapy, surgical excision alone or combined with either preoperative irradiation or postoperative roentgen therapy.

**Pharynx and Nasopharynx**

“Cancer of the Pharynx and Nasopharynx” will be discussed by a panel including a pathologist, a radiologist, a radiotherapist, and a surgeon. The panel presentation will be discussed by Lewis W. Guiss, associate clinical professor of surgery, University of Southern California School of Medicine, Los Angeles, California.

At MDAH, the treatment of choice for patients with cancer of the nasopharynx is radiation therapy of the entire neck in continuity with the primary lesion. Surgical resection following irradiation is the preferred method in treating patients with cancer of the hypopharynx because only occasional success is achieved in these cases with radiation therapy alone.

Patients admitted to the hospital with cancer of the oropharynx are treated with irradiation by cobalt-60 to the primary lesion. Occasional necroses resulting from the irradiation necessitate various degrees of surgical resection. The method used to control metastases to the neck nodes from oropharyngeal tumors differs in each case, depending on the histologic type of the tumor. Supervoltage roentgen therapy, with its skin-sparing effect has made possible an increased use of combined surgical resection and radiation. After irradiation, radical neck dissection is often curative.

**Paranasal Sinuses**

“Cancer of the Paranasal Sinuses” will be discussed by a panel including a pathologist, a prosthodontist, a radiologist, a radiotherapist and a surgeon. The panel presentation will be discussed by Robert C. Hickey, associate professor of surgery, State University of Iowa College of Medicine, Iowa City, Iowa.

This hospital's treatment of choice for tumors of the paranasal sinuses is radical resection of the maxilla with exenteration of the sphenoid and ethmoids of the affected side, following radiation therapy.

**Larynx**

“Cancer of the Larynx” will be discussed by a panel including an anesthesiologist, an internist, a pathologist, a radiologist, a radiotherapist and a surgeon. John V. Blady, clinical professor of surgery, Temple University School of Medicine, Philadelphia, Pennsylvania, will discuss the panel presentation.

The staff here treats patients with cancer of the larynx by surgical resection alone, irradiation alone, or surgical resection combined with preoperative irradiation, depending on the stage of the tumor.

**Papers on Other Topics**

Other topics will be discussed in individual papers at the Clinical Conference. These topics include the following: “Present Concepts in Head and Neck Cancer,” “Problems of Reconstructive Surgery in Cancer of the Head and Neck Regions,” “Report on Perfusion of Head and Neck Tumors,” “Salivary Gland Tumors,” “The Evaluation of Supervoltage Roentgen Therapy for Patients with Head and Neck Cancer,” “Indications for Radical Neck Dissection,” “Extension of Carcinoma through Peripheral Nerves in the Head and Neck Regions,” “Squamous Papilloma of Nasal Mucosa” and “Wound Sterilization by Locally Applied Chemothapeutic Agents.” A number of these papers will be discussed by Justin J. Stein, professor of radiology, School of Medicine, University of California Medical Center, Los Angeles.

The conference summary will be presented by Murray M. Copeland, professor of oncology, Georgetown University School of Medicine, Washington, D. C. Dr. Copeland and the other out-of-state speakers are all Cancer Coordinators at the medical and dental schools with which they are affiliated.
SESSION CHAIRMEN
Announced for Symposium

Session chairmen for the Fourteenth Annual Symposium on Fundamental Cancer Research have been announced by T. C. Hsu, general chairman of the symposium committee. "Cell Physiology of Neoplasia" will be the topic under discussion when the symposium meets in Houston on February 25, 26 and 27, 1960.

The program will be presented in five different sessions. Session 1, "The Nucleus," will be led by T. C. Hsu, MDAH section of cytology. Chairman of Session 2, "The Cytoplasm," will be Charles Oberling, Institute de Recherches sur le Cancer Gustave Roussy, Villejuif, France. Chairman of Session 3, "Nucleic Acids," will be J. H. Taylor, Columbia University, New York, N. Y.

Sessions 4 and 5 will be devoted to "Cell Growth and Development," with C. M. Pomerat, The University of Texas Medical Branch in Galveston, as chairman of Session 4 and with M. J. Kopac, New York University, as chairman of Session 5.

UT PRESIDENT SEES MDAH PHOTO-MURAL

Logan Wilson, President of The University of Texas, saw the picture of MDAH at the American exhibition on his recent visit to Moscow. Dr. Wilson wrote, "In one of the buildings I was pleased to see a big photo-mural of the M. D. Anderson Hospital as the one institution they had picked to exemplify graphically American medicine." The exhibition, sponsored by the U. S. government, closed late this summer.

ACS AIDS RESEARCH

Five grants, totaling $83,931, to support research at MDAH, were among awards announced in September by the American Cancer Society. Amounts, projects and recipients are as follows:
1) $30,000 for institutional research work at MDAH;
2) $11,066 for the synthesis of new chemotherapeutic substances in the purine and pyrimidine series containing amino acid moieties, directed by Darrell N. Ward;
3) $13,202 for a cytological study of cell strains, directed by T. C. Hsu;
4) $13,561 to expedite research work on the biosynthesis of nucleotide and polynucleotide pyrimidines in rat tumor tissue, directed by Robert B. Hurlbert;
5) $16,102 for a two year study of the biosynthesis of nucleotide and polynucleotide pyrimidines in rat tumor tissue, directed by Robert B. Hurlbert.

BLACKFORD MEMORIAL LECTURER

Richard H. Jesse, Jr., MDAH assistant surgeon in the head and neck section, will speak November 11 at the Blackford Memorial Lectures in Denison, Texas. The title of his paper will be "Some of the Newer Aspects of Surgery in Relation to Cancer."
Established by Mrs. Clara Blackford Smith in honor of her father, the late G. L. Blackford of Denison, the Blackford Memorial Lectures have been presented annually in Denison, Texas, since 1957.

STAFF APPOINTMENTS

Fritz R. Dixon has been named medical officer in charge for the U. S. Public Health Service on the Pulmonary Cytology Project, which is being conducted jointly by MDAH and the National Cancer Institute. He received his M.D. degree from Indiana University School of Medicine, where he also held a U. S. Public Health Service Fellowship during 1957-1958. He served his internship at the Indianapolis General Hospital.

David Trkula has been appointed assistant biophysicist in the section of virology and electron microscopy, department of biology. He received his Ph.D. degree in biophysics from the University of Pittsburgh, where he was research assistant in virus research. Since 1957 he had held an appointment as instructor in physics at the University of Pittsburgh.

STAFF ACTIVITIES

Leon L. Dmochowski, section of virology and electron microscopy, served as program chairman for the September 10 symposium on "Contributions of Electron Microscopy of Viruses and Cells to the Problem of Cancer," at the Seventeenth Annual Meeting of the Electron Microscope Society of America, held September 9-12, at Ohio State University, Columbus, Ohio. He presented two papers at the meeting: "Studies of Polymers Virus: Electron Microscope Observations of Tissue Culture Cells and Animals Infected with the Virus," with Clifford E. Grey and Lyman A. Magee as co-authors, and "Studies on Submicrometric Structures of Tumors of Suspected or Unknown Viral Etiology."

Gerald D. Dodd, Jr., and Robert L. Egan, section of radiology, showed an exhibit on "Clinical Application of Tomography in Carcinoma of the Paranasal Sinuses," at a meeting of the American Roentgen Ray Society that was held in Cincinnati, Sept. 21.

Renilda Hilkemeyer, Nelliana Best and Dee MacDonald, department of nursing, conducted a program August 19, for a group of visiting nursing students from The University of Texas Medical Branch in Galveston. Talks included "The Role of the University of Texas M. D. Anderson Hospital and Tumor Institute," "Nursing Problems Specific to Patients Receiving Radio-Isotopes," and "The Role of the Nurse in the Out-Patient Department."

Clifton D. Howe, Sebron C. Dale, and H. Grant Taylor, department of medicine, spoke at the Health Conference for the Industrial Team, sponsored by the Texas Industrial Nurses Association, which was held September 19 in the MDAH auditorium. Dr. Howe spoke on "Cancer Therapy: Surgery, Radiology and Chemotherapy."
Dr. Dale spoke on "Complete Physical Examination and the Recognition of Early Signs of Cancer." Dr. Taylor presented the welcoming address.

Bruno Jirgensons and Tokuji Ike­naka, department of biochemistry, participated in the national meeting of the American Chemical Society held September 13-18 in Atlantic City, New Jersey. Their paper, "Terminal Amino Acid Sequence of Human Serum Albumin," was given by Dr. Jirgensons.

James D. McKinley, Jr., pharmacist, presented a paper on "Floor Stocks—Their Selection and Control" at the American Society of Hospital Pharmacists Convention, held in Cincinnati, Ohio, August 16-22.

(Staff Activities, continued on page 4)
**NEW TECHNIQUE**

Tyrosinase activity in melanoma sue now can be determined easily with the aid of a new staining technique developed at MDAH.

The technique, reported in the July issue of *Stain Technology* by Jeffrey P. Chang and William O. Russell of the department of pathology, improves the staining ability of autoradiographs. By the use of this technique, the precise localization of tyrosinase activity can be determined microscopically.

Staining of a tissue section that is tagged with radioisotopes and embedded in paraffin is accomplished by floating the section on a solution of hematoxylin for one hour and for a similar period of time in a solution of eosin, before the paraffin is removed. The stained section then is mounted on a special photographic plate for exposure and processing.

Autoradiographs formerly were not suitable for microscopic examination and tyrosinase activity could not be localized accurately in the tissues.

Tyrosinase activity is under study at MDAH to determine its relationship to the development of melanoma.

**ALUMNI PRESIDENT**

It was announced Oct. 8 that R. L. Clark, Jr., MDAH Director and Surgeon-in-Chief, will serve as president of the Alumni Association of the Mayo Foundation for Medical Education and Research for the coming year. He succeeds J. F. Weir of Rochester.

The Alumni Association was founded in 1915 to further the scientific relationship between the Mayo staff and its former fellows and residents.

**Book Review**

The following review appeared in *J.A.M.A.*


This book contains a series of papers reporting studies on the physical and chemical aspects of radiation and radiobiology encountered in investigations of the cause and treatment of malignant disease. Observations of a preliminary nature which call attention to the basic factors involved in these problems are presented. The book should serve as a reference point for critical students in the fields of radiology and cancer, but it may not find general acceptance by the average reader, since the material is highly specialized. The fact that the book reveals important vistas of this complex subject may result in a future stream of publications on many of the challenging aspects of the problem.