

# NEWS LETTER

For the Physicians of Texas

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Texas Medical Center • Houston 25, Texas

## Order of Merit

Lee E. Farr, chief of the section of nuclear medicine, was awarded Germany's highest civilian award, The Gold Cross (First Class) of The Order of Merit, in a ceremony May 31 in the Houston German Consulate.

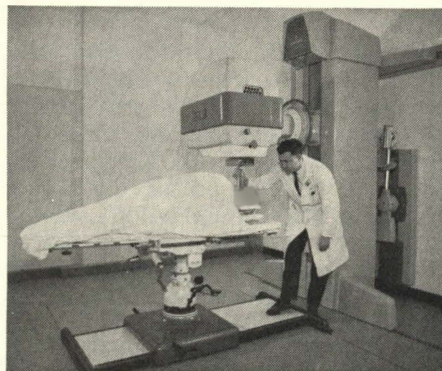
The medal, comparable to the French Legion of Honor, was presented to Dr. Farr by Dr. Ludwig Fabel, German Consul. In presenting the award, Dr. Fabel said it was granted for noteworthy assistance to the re-establishment of medical research in Germany and, especially, for the work Dr. Farr did on the Nuclear Medical Center and the Nuclear Medical Reactor at Julich, Germany.

Dr. Farr received similar awards for work in Belgium and Greece, done while he was serving as lecturer and technical advisor for the Atomic Energy Commission, the U. S. State Department, SEATO, and the U. S. Naval Medical Research Council. Dr. Farr assisted various governments in setting up nuclear medical centers, medical reactors, and whole-body counters.

Dr. Farr is a member of 18 American, European, and Far Eastern research and medical societies. He is engaged in research and the practice of medicine, and is the author of numerous scientific articles.



Dr. Lee E. Farr



Dr. Delclos (right) makes adjustments before giving treatment with the new Siemens betatron unit.

## Betatron at MDAH

A new Siemens 19 MEV betatron unit has been installed in the radiotherapy section at MDAH. With the acquisition of this advanced unit, MDAH has radiation equipment which includes low-voltage, 60 to 120 KV, x-ray units for superficial irradiation; medium range, 250 KV, x-ray units and the Cesium-137 for conventional radiation; and supervoltage, 1.1 to 22 MEV units, including two betatrons and two Cobalt-60 units which provide gamma-rays of 1.2 MEV average energy.

The new Siemens unit is capable of producing two separate beams for therapy, an x-ray beam and an electron beam, which may be varied from 6 to 19 MEV.

According to MDAH radiotherapists, the variable electron beam is particularly suited for managing tumors located in body regions where there are other healthy organs and tissues; the delicate control of the electron beam affords more effective protection of those healthy organs during treatment.

The principal features of the new supervoltage machine are that it is lighter and about one third smaller than previous models and, consequently, affords greater ease of manipulation. The new betatron also features a pendulum action which provides

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## Graduate School of Biomedical Sciences At Houston To Be Established

At the 58th session of the Texas Legislature, an act creating The University of Texas Graduate School of Biomedical Sciences at Houston, Texas, was passed. The bill was submitted to the legislature following extensive study by The University of Texas Board of Regents, The Texas Commission on Higher Education, the Office of the Chancellor of The University of Texas, and the staffs of the various units of The University of Texas in Houston. Gov. Connally signed the enabling legislation on June 10, 1963.

The new graduate school will be composed of the educational divisions of the University's three branches which are already located in the Texas Medical Center in Houston. These branches of The University of Texas include the M. D. Anderson Hospital and Tumor Institute, the Dental Branch, and the Postgraduate School of Medicine.

Since 1947, The University of Texas has offered through the Houston institutions pre- and postdoctoral training in 11 basic sciences and 14 clinical specialties. However, work for the Ph.D. degree, offered in biology, biochemistry, and physics, has been a cooperative effort with the Graduate School at the Main University in Austin. The Graduate School of Biomedical Sciences at Houston will grant post-baccalaureate degrees earned in several areas of the biomedical sciences, including molecular biology, biophysics, biochemistry, environmental health, biomathematics, and nuclear medicine.

The Graduate School of Biomedical Sciences at Houston is a graduate school distinct from that of the Main University. The academic administrative staff of the Houston campus will be responsible directly to the principal U.T. administrative officer and his staff. All

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an easily attainable focus on treatment sites. The single-unit control panel has been simplified to allow a constant check on the progress of treatment.

The new betatron will also expand the training capacities at MDAH which include specialized study for radiation therapists, radiation physicists, and radiation biologists who participate in a three- or four-year program of advanced study in these disciplines. Courses at the pre- and postdoctoral levels are available in radiation physics and radiation biology for periods of study lasting from 6 months to 3 years. The development of these training programs was made possible by a 1962 training grant awarded by the NIH.

Constant studies are underway at MDAH to determine which type of radiotherapy offers the patient with a specific type of tumor the greatest benefit. By utilizing the various methods available at the institution, radiotherapists are able to plan complete tumor irradiation with fewer side effects and less discomfort to the patient. A continuous, definitive study of over 6,000 patients treated with supervoltage therapy has provided comparative data on the Co<sup>60</sup> and betatron units.

Funds for the new betatron unit were provided by a Radiation Therapy Research Center grant awarded by the National Cancer Institute, National Institutes of Health, in January, 1962; this grant was the second of five such grants to be awarded in the United States. The grant calls for expanding and developing clinical research activities in radiotherapy and for providing teaching facilities at MDAH.

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postbaccalaureate degrees will be awarded by The University of Texas.

The objective of the new educational program is to collect, preserve, teach, and disseminate information in the health-related sciences—the biomedical sciences. A fertile academic atmosphere exists for teaching and research. The curriculum will not con-

flict with postbaccalaureate programs of other educational facilities in Texas.

Though the Graduate School of Biomedical Sciences is geographically in Houston, a rich working relationship has been created with other units of The University of Texas, and while the Graduate School at Houston is a part of The University of Texas, an ideal interrelationship has been made available with various academic and other institutions in the Houston area of Texas.

The academic, administrative, and instructional resources of The University of Texas units at Houston include 170 appointees. Among these appointees, 45 hold the Ph.D. degree; 66, the M.D. degree; and 55, the D.D.S. degree. A small group holds both the Ph.D. degree and one of the professional postbaccalaureate degrees. Within the Graduate School, this faculty will offer specialized programs of advanced training and research. The activities of the Postgraduate School of Medicine will be continued under a new name as a special division which will provide for the continuing education of physicians.

## Seventeenth Annual Symposium

Representatives from the United States and 15 foreign countries comprised the 1,051 delegates attending the Seventeenth Annual Symposium on Fundamental Cancer Research held by The University of Texas M. D. Anderson Hospital and Tumor Institute, Feb. 20 to 22 in Houston. The symposium entitled "Viruses, Nucleic Acids, and Cancer" encompassed the structure, replication, and properties of viruses and their correlation to neoplasia.

Delegates attending the meeting heard 35 speakers and 19 major discussants spotlight the most recent advances in virus research and its relationship to cancer. Among the many outstanding participants were Nobel Prize winner Wendell M. Stanley and Albert Sabin, developer of the oral poliomyelitis vaccine.

D. P. Burkitt from the Makerere University College Medical School of Uganda, South Africa, described the peculiar "Burkitt" tumor which is found almost exclusively among African children and is theorized to be vector-borne. The Burkitt tumor is of great interest to scientists because it may be the first human tumor found to have a possible viral origin.

George W. Cochran, botany profes-

sor from Utah State University, spotlighted his research in which ultrasonic energy was employed to rupture chloroplasts which, with the subsequent addition of nucleic acid, later resulted in the formation of new, infectious virus in a cell-free environment.

Research conducted separately by two scientists, Roy Markham from the Agricultural Research Council in Cambridge, England, and T. F. Anderson of the Institute for Cancer Research in Philadelphia, described two instances in which viruses were either too small or too weak to replicate themselves. Dr. Markham told of viruses which were too small to contain the necessary genetic material to multiply by themselves and, therefore, relied upon material from larger, seemingly mild viruses. Dr. Anderson reported findings which demonstrate that certain viruses can cross-breed to form a new virus.

Highlighting the three-day symposium was the presentation of the 13th annual Bertner Foundation Award for outstanding achievement in the field of cancer research to Ludwik Gross from the Veterans Administration Hospital in Bronx, New York. In giving the award, R. Lee Clark, Director and Surgeon-in-Chief of MDAH said, "If human leukemia is ever proved to be virus-induced, and if a preventative vaccine against it is ever developed, it will be as a direct consequence of the pioneering work of Dr. Gross."



Dr. Ludwik Gross (center), recipient of the 13th Annual Bertner Foundation Award, with Dr. Copeland (left) and Dr. Clark (right), after accepting the "Stetson" and governor's scroll, symbols of Texas citizenship.

The symposium was co-sponsored by The University of Texas Postgraduate School of Medicine and supported in part by the National Cancer Institute and the Texas Division of the American Cancer Society. Papers presented at the symposium will be published in a volume entitled *Viruses, Nucleic Acids, and Cancer*.

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# MDAH Investigators Receive Research Awards

Three staff members of the department of medicine, Wataru W. Sutow, associate pediatrician, Daniel E. Bergsagel, associate internist, and Joseph G. Sinkovics, assistant internist, have been granted research awards by the National Cancer Institute, U. S. Public Health Service.

A Research Career Award was granted to Dr. Sutow for clinical documentation and investigation of chemotherapeutics in children with malignant neoplastic diseases. Dr. Bergsagel's Research Career Development Award is for study of blood thromboplastin formation, mammalian cell protein synthesis pattern transformations, and the testing of new chemotherapeutic agents. Dr. Sinkovics' Research Career Development Award, was granted for studies on the complex pathogenicity of human malignant tissues.

The awards, based on nationwide competition, are made only to scientists who achieve the highest standards of excellence and potential future development in research.



W. W. Sutow

Research Career Awards are intended to finance positions for experienced investigators who are continuing to develop careers of independent research and teaching. The award, although

subject to periodic review, continues for the full career of the individual so long as he continues to meet the standards set by the institution, and both he and the institution wish to have the award continued.

Research Career Development Awards finance positions for able scientists who plan to pursue careers in independent research and teaching; it is primarily intended for young scientists who desire to further their experience and training in a productive research environment. The development award may be made for an initial period of five years and is subject for renewal for a period not to exceed ten years. Recipients of this award are eligible for and may apply at any appropriate

time for a Research Career Award.

## DR. SUTOW, PEDIATRICIAN

Dr. Sutow, a native Californian, joined the MDAH staff in 1954 as an associate pediatrician and has since demonstrated his competence and interest in clinical research on many occasions. Prior to his appointment at MDAH, Dr. Sutow served as an intern and resident at the Salt Lake County General Hospital, as pediatrician on the Atomic Bomb Casualty Commission, as a fellow at Stanford Medical School, and as a captain in the U. S. Army. He has further distinguished himself as an able investigator and skillful writer in the field of chemotherapeutics and their effects. Dr. Sutow was one of the principal investigators engaged to study the Rongelap people in the Marshall Islands after their exposure to radioactive fallout.

Dr. Sutow received his A.B. degree from Stanford University in 1939, and his M.D. degree from the University of Utah Medical School in 1945. He plans to continue his research on a comprehensive, continuous, systematized documentation of specific types of cancer in children, and to study the application and results of chemotherapeutic procedures in childhood cancer.

## HEMATOLOGY RESEARCHER

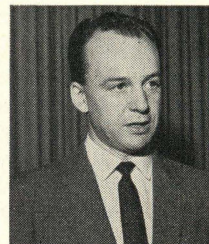
Dr. Bergsagel was born in Canada and received his early education at the University of Manitoba; he received his M.D. degree at the University of Manitoba Medical College and his D.Phil. at Oxford University, Oxford, England, in clinical pathology. Before coming to MDAH in 1955, Dr. Bergsagel held a fellowship in physiology and medical research at the University of Manitoba Medical College; assistant residencies at Winnipeg General Hospital and Salt Lake County General Hospital; clinical fellowship at Salt Lake County General Hospital; and a research fellowship in pathology at the Radcliffe Infirmary, Oxford, England.

Dr. Bergsagel has been the principal investigator and senior author of many investigations concerning hematology, blood content studies in anemia and leukemia, and the effects of chemotherapeutics. He held a Damon Runyon Clinical Hematology Fellowship from 1952 to 1953, and a Canadian National Research Council Fellowship from 1953 to 1955. At present, Dr. Bergsagel is chairman of the myeloma section, Southwestern Cancer Chemotherapy Study Group.

According to the terms of the award,



J. G. Sinkovics



D. E. Bergsagel

Dr. Bergsagel's activity will be divided into three major areas, (1) the formation of blood thromboplastin, (2) an attempt to transform the protein synthesis pattern of mammalian cells, and (3) testing the effectiveness of new chemotherapeutic agents.

## VIROLOGY RESEARCHER

Dr. Sinkovics was born in Budapest, Hungary, where he received his M.D. degree in 1948. After serving as assistant and associate professor of microbiology and scientific investigator in virology at the University of Budapest, Dr. Sinkovics received a postdoctoral fellowship at the Rockefeller Institute of Microbiology at Rutgers University in 1957. Dr. Sinkovics has authored many scientific articles, and is the author of the textbook, "Fundamentals of Virus Research."

First associated with MDAH as a resident and research fellow in 1959, Dr. Sinkovics returned in 1962 as a senior fellow and, later, assistant internist. Dr. Sinkovics' work at MDAH has shown his ability as a researcher, worker, and author.

## Fellowship Winners

### Announced at Symposium

Charles Manson McBride received the 1963 William and Lola Heuermann Cancer Research Fellowship, given annually to a young surgeon who will devote his full time to experimental surgery in the field of cancer, it was announced at the Seventeenth Annual Symposium on Fundamental Cancer Research held in Houston, February 20 to 22. At the same time, Herbert Louis Kotz was named as the recipient of the 1963 Jesse H. Jones Fellowship in Cancer Education.

Dr. McBride received his B.Sc. from McGill University, Montreal, Canada, and his M.D. and C.M. from Dalhousie University, Halifax, Nova Scotia, where he has recently held a

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fellowship which, aside from research, involves lecturing in pathology. After receiving his degrees in 1957, Dr. McBride spent two years as an assistant resident in surgery at Royal Victoria Hospital, Montreal; one year as lecturer in physiology at McGill University; and a year as a resident in surgery at Camp Hill Hospital, Halifax.

Dr. Kotz was active in research during and after his residency at Yale University School of Medicine, and reports of his work have been published in several professional journals.

Dr. Kotz, presently serving as a Captain in the United States Air Force, received his B.A. at George Washington University and his M.D. at George Washington University School of Medicine. Prior to joining the Air Force, he was an instructor in obstetrics and gynecology at Yale.

Upon completion of his tour of military duty, Dr. Kotz will begin advanced training in gynecological oncology at MDAH.

## Grants Aid Research and Education

Research projects and scientific education at MDAH have received support from twenty-one new grants totaling \$911,180.

The Atomic Energy Commission granted:

1. \$50,000 to Lee E. Farr, nuclear medicine researcher, for summary and evaluation studies of neutron capture therapy for neoplasia control in animals and man using the thermal neutron-boron-10 reaction.

2. \$38,260 to Robert J. Shalek, physicist, for radiation studies on bacterial and animal viruses.

3. \$26,484 to Daniel Billen, biologist, for the study of alterations induced by x-ray and ultraviolet light on the synthesis and maintenance of macromolecular components with microorganisms.

The Public Health Service of the Department of Health, Education and Welfare awarded:

1. \$23,906 in a research career development award to D. E. Bergsagel, associate internist, for studies of formation of blood thromboplastin, attempts to transform the protein synthesis pattern of mammalian cells, and tests of effectiveness of new chemotherapeutic agents.

2. \$14,821 to Beaury C. Burns, Jr., assistant gynecologist, for research in

the measure of radiosensitivity by buccal cell response.

3. \$13,342 to Robert J. Shalek, physicist, to study the radiation effects on dilute solutions of lysozyme.

4. \$29,313 to Felix L. Haas, biologist, for research on cellular substances required for induction of mutation.

5. \$268,887 to Gilbert H. Fletcher, radiotherapist, for a further extension of radiotherapy research already underway.

6. \$58,525 to William O. Russell, pathologist, for research on early detection of lung cancer by pulmonary cytology.

7. \$13,594 to Gilbert H. Fletcher, radiotherapist, for an evaluation study of supervoltage therapy.

8. \$49,680 to Felix L. Haas, biologist, for educational research training in biology of growth processes.

9. \$20,695 to John E. Healey, Jr., associate experimental surgeon, for research on the effects of chemotherapeutic agents on the liver.

10. \$28,664 to R. B. Hurlbert, associate biochemist, for a study of biosynthesis and the role of deoxynucleotides.

11. \$30,741 to H. W. Neidhardt, associate pathologist, to expand the capacity of the school of cytotechnology.

12. \$54,000 to William O. Russell, pathologist, for training and research in pathology.

13. \$16,000 to Joseph G. Sinkovics, assistant internist, in a research career development award for studies on the complex pathogenicity of human malignant tissues.

14. \$27,784 to Herman D. Suit, assistant radiotherapist, for research on the modification of tumor response to local x-irradiation.

15. \$23,906 to Wataru W. Sutow, associate pediatrician, in a research career award for clinical documentation and investigative chemotherapeutics in children with malignant neoplastic diseases.

Additional grants have been made to MDAH research:

1. \$11,862 to Bruno Jirgensons, biochemist, for research on abnormal serum globulins in neoplastic disease, from the American Cancer Society.

2. \$21,400 to T. C. Hsu, biologist, in a renewal grant for the study of the cytology of cell strains, from the Damon Runyon Foundation.

3. \$89,316 to Gilbert H. Fletcher, radiotherapist, in a renewal grant for training in radiation research on cancer, from the National Cancer Institute.

## Scientific Presentations

A. J. Ballantyne, associate head and neck surgeon, delivered the address, "The Extension of Cancer of the Head and Neck Along Peripheral Nerves," at a meeting of the Texas Surgical Society in Houston, April 1, and at the Southwestern Surgical Congress in Mexico City, Mexico, April 24.

D. E. Bergsagel, associate internist, spoke on "Multiple Myeloma" for the Medical Grand Rounds at the Methodist Hospital in Houston, on April 10. On April 12, he spoke on "Chemotherapy: Status and Recent Advances" for the Hidalgo-Starr County Medical Society. At the opening of the Manitoba Cancer Foundation Building in Winnipeg, Canada, on May 22, Dr. Bergsagel read a paper on "Chemotherapy of Myeloma," and at the annual meeting of the American Association for Cancer Research in Toronto, Canada, on May 25, he presented a paper entitled "The High Incidence of Gram Negative Infections in Myeloma Patients Treated with L-Sarcosin and the Effect of This Therapy on Immunoglobulins."

Daniel Billen, biologist, reported on "Nutritionally Induced Alteration of DNA Synthesis and Consequences in X-Ray Sensitivity" at a seminar held April 12 at the University of Cincinnati Medical School in Cincinnati, Ohio. He also reported on this work at a seminar at The University of Texas in Austin, Texas, May 2. "Further Studies of the Effects of AET and Cysteamine on Murine Bone Marrow Nucleic Acid Metabolism *in vitro*" was the title of a paper presented by Dr. Billen on April 16 at the Annual Meeting of the Federation of American Societies for Experimental Biology in Atlantic City, New Jersey. Dr. Billen also participated as a panel member at the Conference on Regulation of DNA Synthesis *in vivo* which met in Aspen, Colorado, May 29 to June 1.

Beaury C. Burns, Jr., assistant gynecologist, delivered two lectures, "Chemotherapy in the Management of Adenocarcinoma of Ovary" and "Diagnosis and Treatment of Female Pelvic Malignancies," at a February 20 meeting of the San Antonio Surgical Society in San Antonio, Texas. At the Cancer Society meeting in Moultrie, Georgia, April 4, Dr. Burns presented "The Combination of Radiation and Surgery in the Treatment of Carcinoma of the Cervix—Method of Selection of Cases," and again presented

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"Chemotherapy in the Treatment of Adenocarcinoma of Ovary." "Phenylalanine Mustard in the Palliative Management of Carcinoma of the Ovary" was the subject presented by Dr. Burns at the New York City meeting of the American College of Obstetricians and Gynecologists, April 23.

**John Calkins**, postdoctoral fellow in biophysics, presented the paper, "Some Observations on Two Modes of Radiation Death in Two Ciliate Protozoans" at the Radiation Research Society meeting May 28, in Milwaukee, Wisconsin.

**Jeffrey P. Chang**, associate biologist, participated in two workshop presentations, as a faculty member of the Cryostat Frozen-Section Technique Workshop at the American Society of Clinical Pathologists Interim Meeting February 15 to 17 in New Orleans, Louisiana, and a workshop on the use of the "open-top" cryostat in cancer diagnosis at the College of American Pathologists Third Annual Mid-Winter Meeting, Mar. 1, in Houston.

**Paul M. Chau**, associate radiotherapist, lectured on "Carcinoma of the Cervix" at the University of Indiana Medical School, April 29 to May 3.

**R. Lee Clark**, Director and Surgeon-in-Chief, presented a series of papers May 6 and 7 as part of a Postgraduate Course in Surgery of Cancer for the General Practitioner held in Edmonton, Alberta, Canada. Titles of Dr. Clark's papers included: "Management of Soft Tissue Tumors," "Historical and Recent Advances in Research: Viruses and Tumors," "Therapy Against Cancer of the Thyroid: An Exercise in Serendipity," and "Clinical Problems in the Management of Cancer." Dr. Clark also participated in a panel discussion on "Cancer of the Breast," and discussed clinical problems in the management of cancer with the medical faculty and students at the University of Alberta.

**Arthur Cole**, associate physicist, attended a meeting of the Biophysical Society in New York City, February 18, where he spoke on "Molecular Model for Biological Contractility. Implications in Muscle and Chromosome Structure and Function."

**R. Vernon Colpitts**, clinical assistant gynecologist, presented the exhibit "Cryostat in Carcinoma of the Cervix In Situ" at the annual meeting of the American College of Obstetricians and Gynecologists, April 21 through April 24, in New York City.

**Murray M. Copeland**, associate director for education, spoke on "Advances in Research Affecting Cancer Control" at a meeting of the Orleans Parish Medical Society and the Louisiana Division of the American Cancer Society, April 9 in New Orleans, Louisiana. "The Clinical Care of the Cancer Patient, Both Curative and Palliative" was the subject of a May 15 address to the physicians at Scott and White Memorial Hospital in Temple, Texas. Also in Temple, on the following day, Dr. Copeland addressed a meeting of the Bell County Chapter of the American Cancer Society concerning "Advances in Research Which Affect Cancer Control."

**Luis Delclos**, assistant radiotherapist, delivered a talk May 7 to the Webb, Zapata, Jim Hogg Medical Society in Laredo, Texas, entitled "Most Recent Practical Developments in Therapeutic Radiology."

**W. C. Dewey**, associate physicist, spoke at the Milwaukee, Wisconsin, meeting of the Radiation Research Society May 27 on "Effectiveness of Tritiated Thymidine Compared with Tritiated Water and Cobalt-60 Gamma-Rays for the Induction of Chromosomal Breaks."

**Leon Dmochowski**, virologist and electron microscopist, served as a session chairman at a symposium on Infectious Diseases—Recent Contributions of Lasting Value, February 28 through March 1 at The University of Texas Postgraduate School of Medicine in Houston. At a special meeting of the Dade County Medical Association in Miami, Florida, April 2, Dr. Dmochowski spoke on "The Search for Human Tumor Viruses." He gave two lectures, "The Relationship of Viruses to the Origin of Cancer" and "Studies on Leukemia in Animals and Man," at the 15th Annual Conference for Veterinarians April 8 to 10 at the University of Washington, Pullman, Washington. The virologist read two papers, "Electron Microscopy of a Methylcholanthrene-Induced (MC) Hepatoma and Associated Leukemia" and "Observations on Transplantable Hepatoma of Mice and Associated Leukemia," at the 54th Annual Meeting of the American Association for Cancer Research in Toronto, Canada, May 23 through 25. These two papers were co-authored by **J. A. Sykes**, **F. Padgett**, **R. Liebelt**, and **A. Liebelt**.

**Donald A. Dreyer**, assistant biologist, presented a special lecture entitled "Malaria" at the Medical Grand Rounds Conference, March 27 at

Methodist Hospital in Houston. "Emperipolesis Observed in Cells Derived from Tissues of Patients with Leukemia and Malignant Lymphoma" was the subject of a paper delivered by Dr. Dreyer at the 54th Annual Meeting of the American Association for Cancer Research in Toronto, Canada, May 23 to 25.

**Nylene E. Eckles**, associate internist, addressed the Medical Staff of Hermann Hospital at their May 28 Houston meeting in a lecture entitled "The Management of Metastatic Diseases of the Breast."

**Gilbert H. Fletcher**, radiotherapist, presented two series of lectures at Lackland Air Force Base, San Antonio, Texas, February 21 and March 20. Dr. Fletcher is civilian consultant in radiotherapy at the base. On April 5 and 6 at the United States Naval Hospital in San Diego, California, he spoke on "Radiotherapeutic Techniques in the Management of Breast Cancer." On April 22 to 24, Dr. Fletcher participated in the correlated seminars of the annual meeting of the American College of Obstetricians and Gynecologists in New York City. Titles of his talks were: "Cancer of the Vulva"; "Adenocarcinoma of the Endometrium"; "Cancer of the Cervix"; and "Cancer of the Ovary." On May 24 to 25, Dr. Fletcher was guest speaker at the Eighth Annual Postgraduate Meeting of the Southern California Permanent Medical Group and the Kaiser Foundation Hospitals in Los Angeles, California. The two talks he gave there were: "Techniques and Physics of Radium Therapy and External Irradiation" and "Policies of Management in Carcinoma of the Cervix, Including Indications for Supplemental Surgical Procedures." As president of the American Radium Society (April 1962 to March 1963), Dr. Fletcher presided at the annual meeting held in San Francisco, California, April 1 to 4.

**Elon W. Frampton**, assistant biologist, spoke May 9 at the 63rd Annual Meeting of the American Society for Microbiology in Cleveland, Ohio, on "Synthesis of RNA in Bacteria Exposed to X-Rays."

**H. Stephen Gallager**, associate pathologist, spoke on "Pathological Gleanings from the Reproducibility Study" at a Mammography Reproducibility Study Project meeting held May 24 in Houston.

**F. L. Haas**, biologist, addressed the Arkansas Chapter of the American

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(Presentations, continued from page 5)

College of Surgeons on "Current Concepts in the Biology of Cancer," May 9 in Houston.

**A. Clark Griffin**, biochemist, presented a paper, "Protein Synthesis in Malignant Cells," at the Science Writers Seminar sponsored by the American Cancer Society, April 8 in La Jolla, California.

**John E. Healey, Jr.**, associate experimental surgeon, presented a paper at the North American Federation of the International College of Surgeons meeting in Los Angeles, California, April 20 to 27, entitled "Nonsuture Repair of Blood Vessels: Further Observations." He also participated in panel discussions on "Aortography: Retrograde versus Direct Puncture" and "Surgical Problems in Peripheral Vascular Disease."

**Renilda Hilkemeyer**, director of nursing, gave two addresses March 14 at meetings in El Paso, Texas. The first, "The Professional Nurse's Responsibility," was given at a gathering of the District 1 Texas Graduate Nurses Association, and the second, "Philosophy of Nursing Care for Cancer Patients," at a meeting of the El Paso County Unit, Texas Division, American Cancer Society. At the March 19 Miami, Florida, meeting of the Nurses Section of the Southeastern Surgical Congress, Miss Hilkemeyer participated in a panel discussion and presented the paper, "The Rehabilitation of Patients with Head and Neck Cancer." "The Nursing Image" was the title of Miss Hilkemeyer's keynote address at the Future Nurses Association Convention March 23 in San Antonio, Texas. At a May 23 meeting of the professional nurses at the Veterans Administration Hospital in Temple, Texas, Miss Hilkemeyer gave an address entitled "Utilization of Nursing Service Personnel."

**C. D. Howe**, internist, spoke on "Systemic Chemotherapy" to a panel discussing the present status of chemotherapy at the March 1 meeting of the Arkansas Chapter, American College of Surgeons in Houston. On March 25, he read a paper on "Cancer Chemotherapy" at a meeting of the American Cancer Society in Richmond, Texas. On April 25, at the Winston-Salem, North Carolina, 12th Annual Symposium on Cancer sponsored by the Forsyth County Medical Society in cooperation with the Forsyth Cancer Service, Dr. Howe spoke on "Medical Problems in Cancer Patients." On April 29, Dr. Howe par-

ticipated on a panel on management of breast tumors at a Texas Medical Association meeting in Dallas.

**Ronald M. Humphrey**, assistant radiation biologist, while attending the April 28 Radiation Research Society meeting in Milwaukee, Wisconsin, with other members of the MDAH physics department, presented his paper, "Change in Radiation Sensitivity During Different Phases of the Cell Cycle for Normal and Bromodeoxyuridine-Treated Mammalian Cells."

**T. C. Hsu**, biologist, spoke on "Cell Cycle and Chromosome Replication and Chromosome Structure" at the University of Nebraska March 25 and 26 in Lincoln, Nebraska. He also presented a seminar on "Chromosomes and Cancer" to the University of Nebraska Medical School in Omaha, Nebraska, on March 26.

**Michael L. Ibanez**, assistant pathologist, served as a faculty member on the Cryostat Frozen-Section Technique Workshop at the American Society of Clinical Pathologists Interim Meeting in New Orleans, Louisiana, February 15 to 17, and he aided in the presentation of a workshop on the use of the "open-top" cryostat in cancer diagnosis at the March 1 College of American Pathologists Third Annual Mid-Winter Meeting in Houston. Dr. Ibanez participated in an exhibit entitled "Use of Cryostat in Diagnosis of Squamous Carcinoma of Cervix" at the New York City 11th Annual Clinical Meeting of the American College of Obstetricians and Gynecologists April 20 through 24.

**Richard H. Jesse, Jr.**, associate head and neck surgeon, lectured on "Head and Neck Surgery" at Texas Women's University College of Nursing February 19 in Houston, and on "Cancer of the Tongue" at The University of Texas Dental Branch Oncology Lecture Series February 27 in Houston. On March 1, Dr. Jesse presented a paper, "Intra-Arterial Infusion," at a meeting of the Arkansas Chapter of the American College of Surgeons held in Houston. "Treatment and End Results in Cervical Node Metastasis: Oropharynx" was the paper presented by Dr. Jesse April 3 at The American Radium Society Conference held in San Francisco, California.

**William S. MacComb**, head and neck surgeon, lectured during The University of Texas Dental Branch Oncology Lecture Series, presenting "Cancer of the Larynx" February 20, and "Indications for Radical Neck Dissection" March 6. On March 2, Dr.

MacComb presented a paper, "The Combined Use of Radiation and Surgery in the Treatment of Tumors of the Head and Neck," at a meeting of the Arkansas Chapter of the American College of Surgeons. In San Francisco, California, at an April 3 American Radium Society meeting, Dr. MacComb moderated a panel on "Treatment and End Results of Cervical Node Metastasis." On April 30, he gave a paper, "Juvenile Nasopharyngeal Fibroma," before the Society of Head and Neck Surgeons meeting in Bermuda.

**David Marrack**, associate pathologist, presented a workshop on "Techniques in Immunoelectrophoresis" at the College of American Pathologists Third Annual Mid-Winter Meeting March 1 in Houston. On March 14, Dr. Marrack lectured on "Antibodies and Antigen Reactions in Gels" at Baylor University College of Medicine.

**Thomas S. Matney**, associate biologist, presented a seminar, "Structure and Function of the *E. coli* K12 Chromosome," at the April 2 Molecular Biology Workshop Seminar in Houston. Dr. Matney presented this work at Oregon State University, Corvallis, Oregon, April 22 and 23, and at Washington State University, Pullman, Washington, April 24 and 25. Another paper, "Genetic Analysis of High-Level Streptomycin Dependence in *Salmonella typhimurium*," was presented at both Oregon State University and Washington State University.

**John P. McGraw**, radiologist, presented a paper, "Recent Advances in Radiology," at the Lone Star Medical Society meeting in Prairie View, Texas, March 5.

**James D. McKinley, Jr.**, chief pharmacist, delivered a lecture entitled "Review of Anti-Cancer Agents" at the Texas Southern University School of Pharmacy Annual Seminar on Pharmacy in Houston April 10.

**Lowell S. Miller**, associate radiotherapist, presented a talk entitled "Carcinoma of the Bladder" at a Tumor Conference at The University of Texas Medical Branch, Galveston, Texas, January 21. Dr. Miller's talk before the Arkansas Chapter of the American College of Surgeons March 1 and 2 was entitled "Results of Combined Surgery and Preoperative Radiation Therapy" and the paper he presented at the March 15 Nurses Conference in El Paso, Texas, was "The Radiologist Looks at Cancer." Continuing his speaking activities, Dr.

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Miller spoke on "Breast Cancer" at the Texas Graduate Nurses Association meeting April 5 in Houston.

**Erin C. Moore**, assistant biochemist, and **R. B. Hurlbert**, biochemist, participated in the Annual Meeting of the American Society of Biological Chemists in Atlantic City, New Jersey, April 17 and 18. Dr. Moore's paper was entitled "Cofactor Requirement of the Cytidine Nucleotide Reductase System," and Dr. Hurlbert spoke on "Synthesis of High-Turnover RNA in Isolated Nuclei," which was co-authored by **T. Takahashi**, **R. B. Swint**, and **M. C. Liau**, of the department of biochemistry.

**Robert S. Nelson**, associate internist, delivered an address entitled "Intrinsic Factor Deficiency in Malignant Neoplasia of the Stomach" at the 54th Annual Meeting of The American Association for Cancer Research held May 23 through 25 in Toronto, Canada.

**Frank F. Parrish**, chief of orthopedic service at MDAH and president of the Hospital for Special Surgery Alumni Association, gave the presidential address entitled "The Avoidance of Amputation by Massive Femoral Bone Graft" at the Centennial Celebration of the Hospital for Special Surgery, New York City, May 1 to 4.

**George G. Rose**, assistant biologist, delivered a lecture, "Phase-Contrast Microscopy in Living Cells," at the First American Meeting of the Royal Microscopical Society of London April 7 to 9 in Bethesda, Maryland.

**William O. Russell**, pathologist, attended the American Society of Clinical Pathologists Interim Meeting February 15 through 17 in New Orleans, Louisiana, where he served as Director in the Cryostat Frozen-Section Technique Workshop; he also assisted in the March 1 presentation of a workshop on the use of the "open-top" cryostat for cancer diagnosis at the College of American Pathologists Third Annual Mid-Winter Meeting in Houston. On May 11, in Chicago, Illinois, Dr. Russell presented an abstract of a paper entitled "A Post-Mortem Study of 30 Cases of Thyroid Carcinoma" at the American Thyroid Association meeting.

**Felix Rutledge**, gynecologist, addressed the Obstetrics and Gynecology Conference held in New Orleans, Louisiana, March 29, where he spoke on "The Role of Surgery in Treatment of Cancer of the Cervix" and participated in a discussion on "Variety of

Cases of Cancer at Tulane and L.S.U." Dr. Rutledge presented a paper entitled "Treatment of Carcinoma of Cervix by the Anderson Hospital and Tumor Institute Technique" May 30 at the District Meeting of the Chattanooga Obstetrics and Gynecology Society. On May 31, he discussed "Cancer of the Female Pelvis" before the Obstetrics and Gynecology House Staff of the Baroness Erlanger Hospital in Chattanooga.

**Werner Schmid**, research associate in cytology, spoke before the 60th Annual Meeting of the American Association of Pathologists and Bacteriologists in Cincinnati, Ohio, April 28 on "Autoradiographic Studies of Abnormal Human Karyotypes."

**Mary E. Sears**, assistant internist, presented a paper on "Status of Cancer Research" at the March 11 meeting of the Memorial Baptist Hospital Women's Auxiliary in Houston. On March 13, Dr. Sears lectured on "Chemotherapy and Other Treatment for Advanced Cancer" at the Third Annual Conference on Cancer Nursing in San Antonio, Texas.

**Robert J. Shalek**, physicist, addressed scientists and students at an April 1 meeting at Rice University in Houston on "A Mechanism for the Oxygen Effect and Relative Biological Effectiveness of Ionizing Radiation." Dr. Shalek spoke on "A Suggested Mechanism for Relative Biological Effectiveness Involving the Participation of the Cellular Environment" at the Radiation Research Society meeting May 28 in Milwaukee, Wisconsin.

**C. C. Shullenberger**, associate internist, spoke on "Current Status of Chemotherapy in Leukemia and Malignant Lymphoma," on March 1, for a meeting at MDAH of the Arkansas Chapter of the American College of Surgeons. On March 19, Dr. Shullenberger spoke on "Current Comments on Leukemia and Malignant Lymphoma," at the American Cancer Society's 3rd Southwest Louisiana Area Cancer Conference in New Iberia, Louisiana.

**J. G. Sinkovics**, assistant internist, presented a paper entitled "New Concepts in Immunology" at The University of Texas Postgraduate School of Medicine Symposium on Infectious Disease held at MDAH February 28. On May 25, at the annual meeting of the American Association for Cancer Research in Toronto, Canada. Dr. Sinkovics presented a paper entitled "Effect of Hematopoietic Chimerism on the Course of Rauscher's Viral

Mouse Leukemia."

**J. Leslie Smith, Jr.**, associate pathologist, presented three lectures on "Nevi and Melanoma," "Epidermal Neoplasms," and "Connective Tissue Neoplasms" as guest faculty member at The Skin and Cancer Hospital Post-Graduate Course in Dermal Pathology held in Philadelphia, Pennsylvania, February 18 to 22.

**Saul W. Soffar**, research associate in gynecology, delivered a lecture entitled "Management of Pulmonary Metastases in Carcinoma of the Cervix" at the annual meeting of the American College of Obstetricians and Gynecologists April 21 through 24 in New York City.

**Herman D. Suit**, assistant radiotherapist, gave a lecture series at the University of Wisconsin, Madison, Wisconsin, May 22 to 24, on "Radiation Response of the C<sub>3</sub>H Mouse Mammary Carcinoma Considered on a Cellular Basis"; "Response to Radiation of Anoxic Human Tissue: Normal and Malignant"; "Radiation Sensitizing Agents Used in the Treatment of Advanced Head and Neck Cancers"; and "A Consideration of the Benefits and Inconveniences in the use of Ovoids and Tandems Modified for Afterloading (Experience of 600 Applications)."

**Joan C. Suit**, research associate in genetics, spoke on "A Bacteriophage Specific for *E. coli*, Strain 15" at the 63rd Annual Meeting of the American Society for Microbiology in Cleveland, Ohio, May 5 through 10.

**Alfred G. Swearingen**, assistant radiologist, read a paper entitled "Mammography" at the March 2 meeting of the Arkansas Chapter of the American College of Surgeons held in Houston, and at the March 21 Ninth District Medical Meeting held in Baytown, Texas. Dr. Swearingen presented a mammography exhibit at the Gallup, New Mexico, Public Health Service Clinical Society Meeting May 1 through 4. On May 24, he presented a paper, "Mammography: Report of 1,000 Examinations and Evaluation Criteria," at a Houston meeting of the Mammography Reproducibility Study Group.

**J. A. Sykes**, associate biologist, spoke on "Infectious Keratoconjunctivitis of Bovines" at the Texas Medical Center Research Seminar in Houston May 30.

**George W. Thoma, Jr.**, associate pathologist, served as a faculty member of the Cryostat Frozen-Section Technique Workshop at the American Society of Clinical Pathologists Interim

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Meeting in New Orleans, Louisiana, February 15 through 17. On February 25, Dr. Thoma presented two lectures, "Deaths Due to Cutting and Shooting" and "Collection and Preservation of Physical Evidence" at the Medico-Legal Seminar in Galveston, Texas, under the sponsorship of The University of Texas Medical Branch. Three lectures, "Deaths from Asphyxia," "Deaths from Cuttings and Stabbings," and "Popular Misconceptions of Medico-Legal Facts," were given by Dr. Thoma at the May 15 to 17 Tenth Annual Southwestern Homicide Investigator's Seminar in Austin, Texas.

E. C. White, surgeon, presented "Treatment of Cancer of the Breast" at a postgraduate course on diagnosis of cancer of the breast at Methodist Hospital Graduate Medical Center, Indianapolis, Indiana, on May 8. At the Mammography Reproducibility Study Meeting in Houston May 25, Dr. White lectured on "Mammography as an Adjunctive Surgical Diagnostic Procedure."

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