Research in Experimental Surgery

Many advances in experimental surgery have been made at MDAH in recent years, and many more are even now in the offing.

Dr. John E. Healey, Jr., associate experimental surgeon, is chief of the section of experimental surgery at MDAH. Under Dr. Healey, research in the nonsuture repair of tissues and vessels (including skin grafts) has made great strides, and several new pieces of equipment have been developed—e.g., the anastomat, an "O-ring" clamp designed to aid closure during repair of blood vessels.

Many of the techniques developed here are now in use in other institutions. In some, further research is required before these techniques are applicable to surgical procedures on human beings; in other cases, ideas have already been adopted for patient care. In both instances, many research centers in different parts of the United States and in other countries have exhibited an interest in substantiating MDAH findings.

During recent weeks, several studies have been completed in this section for which scientific papers are being prepared for publication. Another anastomosing instrument—this one for repairs on vessels or ducts with inside diameters of less than 2.0 mm—has been developed. Other studies involve serosa-to-serosa approximation in intestinal repair, and the use of a collagen cloth for the repair of defects in the chest wall and diaphragm.

Like the anastomat, the new anastomosing instrument has two parts, each a mirror image of the other, joined at a pivot point to permit opening and closing (Figure 1).

Half of a circular ring is welded to the end of each shank; the other half is welded to a hinged lever attached to each shank. The lever portion of the ring is kept in a closed position by a compression spring mounted beneath a thumb button at the proximal end of the lever (Figure 2). Depression of the thumb button separates the two halves of the ring and permits the clamp to be applied to or removed from ductal structures.

The advantages of using this clamp are simplicity of method, minimal ductal occlusion time (may be limited to three minutes by a trained surgical team), time for leisurely and therefore careful repair, and ready removal of the clamp after circumferential anastomosis.

The instrument was developed by Dr. Healey and Mr. E. Bailey Moore, chief of the section of engineering services.

The study on serosa-to-serosa approximation for intestinal anastomosis was conducted by Dr. Healey together (Surgery, continued on Page 2)

Figure 1. The anastomat, joined at the pivot point; open position. The two rings are facing each other at the right end of the instrument.

Figure 2. Lever hinged to shank of anastomat in closed position. Note spring under thumb button.

Ninth Clinical Conference

November 6 and 7, 1964

“Recent Advances in the Diagnosis of Cancer” will be the subject of the Ninth Annual Clinical Conference to be held at MDAH on November 6 and 7, 1964.

Dr. Clifton D. Howe, internist and head of the MDAH department of medicine, is chairman of the Program Committee for the Conference. Dr. John A. Shively, pathologist and chief of the section of clinical pathology, is co-chairman.

Twenty-six distinguished scientists and doctors from both MDAH and other institutions will take part in the program. Following an introduction by Dr. R. Lee Clark, MDAH Director and Surgeon-in-Chief, the following program will begin:

SESSION I. Nuclear Medicine. Dr. George R. Meneely, MDAH internist, presiding. Papers include:

- Use of Isotopes and Advances in Scanning Techniques, by Dr. William C. Dewey, MDAH associate physicist.
- Localization of Labeled Rabbit Antibodies in Human Tumors, by Dr. David Marrack, MDAH associate pathologist.
- Use of Radioactive Phosphorus in the Diagnosis of Esophageal, Gastric, and Rectal Lesions, by Dr. Robert S. Nelson, MDAH internist.

SESSION II. Pathology and Cytology. Dr. Murray M. Copeland, MDAH associate director for education, presiding. Papers include:

- The Cryostat: Use in Diagnosis of Neoplasia, by Dr. William O. Russell, MDAH pathologist.
- Exfoliative Cytology: Its Role in the Diagnosis of Cancer, by Dr. Emmerich von Haam, professor and chairman, department of pathology, Ohio State University College of Medicine, Columbus, Ohio.

Recent Advances in Cytological (Programs, continued on Page 2)
(Surgery, continued from Page 1)  
with Dr. C. M. McBride of the section of experimental surgery and Dr. H. S. Gallager of the department of pathology.

In this study, groups of dogs received intestinal anastomoses according to four types of repair: conventional serosa-to-serosa inverting repair; flat direct reapproximation of submucosa-to-submucosa; submucosa-to-submucosa evert attend closure by suture; and a submucosa evert attend technique with non-suture closure.

Primary healing was achieved with all methods of repair in about the same lengths of time, although the postoperative courses of the dogs differed. From this research, Dr. Healey and his colleagues have concluded that the old surgical dictum of necessity of serosa-to-serosa reapproximation for intestinal wall healing is not as important as is submucosa-to-submucosa coaptation.

Research on the use of a laminated collagen cloth was done by Dr. McBridge, Dr. Healey, Dr. E. C. White of the department of surgery, and Dr. J. J. Butler, pathology department.

The cloth was prepared from chromicized, reconstituted bovine tendon; its experimental use was based on the expectation that host collagen would be laid down on this cloth as on any implanted foreign material.

Results indicate that the cloth can be useful in the repair of body tissue defects since it has the strength to maintain function of the area, is durable enough to last until function is assumed by new host tissue, and is eventually removed so as not to remain a focus of irritation for infection or carcinogenesis.

(Continued from Page 1)  

Techniques for Diagnosis of Cancer of the Lung, by Dr. Suk Chul Chang, associate pathologist at MDAH.

A Re-evaluation of the Significance of Circulating Cancer Cells in the Peripheral Blood, by Dr. William M. Christopherson, professor and chairman, department of pathology, University of Louisville School of Medicine, Louisville, Kentucky.

SESSION III. Medicine and Clinical Pathology. Dr. Shively presiding.

Enzymes in the Diagnosis of Cancer, by Dr. Felix Wroblewski, department of medicine, Memorial Center for Cancer and Allied Diseases, New York, New York.

An Evaluation of Recently Proposed Diagnostic Tests, by Dr. Douglas S. Sprunt, professor of pathology at the University of Tennessee Medical School, Memphis, Tennessee.

Immunoelectrophoresis and Immunodiffusion Techniques in Diagnosis of Neoplastic Diseases, by Dr. Philip J. Migliore, assistant pathologist at MDAH.

Clinical Application of Immunological Studies in Multiple Myeloma, by Dr. Daniel E. Bergsagel, associate internist at MDAH.

The Influence of Recent Research on Cancer Diagnosis, by Dr. Warren H. Cole, professor and head of the department of surgery, University of Illinois College of Medicine, Chicago, Illinois.


Lymphangiography, by Dr. Sidney Wallace, instructor in radiology, Jefferson Medical College, Philadelphia, Pennsylvania.

Mammography, by Dr. Robert L. Egan, radiologist at Methodist Hospital, Indianapolis, Indiana.

The Role of Angiography in the Diagnosis of Tumors, by Dr. Mordecai Halpern, assistant professor of radiology at Cornell University Medical College, New York, New York.

Thermography, by Dr. Jacob Ger- shon-Cohen, director of the department of radiology, the Albert Einstein Medical Center, Philadelphia, Pennsylvania.

Remote Control Cineradiography of the Esophagus, Stomach, and Duodenum, by Dr. Gerald D. Dodd, Jr., clinical professor of radiology at Jefferson Medical College, Philadelphia, Pennsylvania.

SESSION V. Cancer Diagnosis in Futuro. Dr. Gilbert H. Fletcher, MDAH radiologist, presiding.

Application of Probability Theory to Medical Diagnosis, by Dr. Clyde M. Williams, associate professor of radiology at the University of Florida College of Medicine, Gainesville, Florida.

Virologist Named Diplomate

Dr. Leon L. Dmochowski, chief of the section of virology and electron microscopy at MDAH, was recently made a diplomate of the American Board of Microbiology. This standing is awarded only to those individuals who have met the rigid qualifications of study and practice required by the Board. Dr. Dmochowski is now certified in public health and in medical laboratory virology.

In August of this year, Dr. Dmochowski participated in a symposium on "Current Research in Leukemia" held at the University of Cambridge, the School of Clinical Research and Postgraduate Medical Teaching and spoke at the Danish Cancer Society in Copenhagen.

The Service of Karyology in Cancer Diagnosis, by Dr. T. C. Hsu, MDAH biologist.

Electron Microscopy of Human Leukemia, by Dr. Leon L. Dmochowski, MDAH virologist and electron microscopist.

In addition to Drs. Howe and Shive-

ly, other members of the Program Conference include the following MDAH staff members: Dr. Copeland; Dr. Chang; Dr. Marrack; Dr. Meneely; Dr. Russell; Dr. McGraw; Dr. Russell W. Cumley, editor; Mr. Joe E. Boyd, administrator; and Mr. Arthur F. Kleifgen, associate administrator.

The conference will be co-sponsored by The University of Texas Graduate School of Biomedical Sciences at Houston. Also, partial support for the conference will be contributed by The American Cancer Society; Texas Division; a Community Cancer Demonstration Project Grant from the Cancer Control Program, U.S. Public Health Service; and the Doubleday Fund.

Physicians who are members of the Academy of General Practice and who desire credit for attendance at this conference should register in advance with The University of Texas Graduate School of Biomedical Sciences at Houston (Division of Continuing Education), Jesse Jones Library Building, Houston 25, Texas, and sign the attendance roster at each session. Ten hours credit will be given.

The proceedings of the clinical conference will be published in a monograph.
Students participate in summer programs at M. D. Anderson Hospital

During the summer, science study programs for high school and college students were held at MDAH.

An eight-week educational program, the Summer Program in the Biomedical Sciences is conducted each summer. Participants must have completed their junior or senior year in a Texas high school and must have attended a summer science program held at The University of Texas or Texas A. & M. University. The director of each of these programs submits a list of the eight students who proved most promising as scientific trainees. From these 16 students, eight are chosen for the MDAH program on the basis of scholastic ability and scientific motivation.

Students on the other program were of both high school and college age. These students were employed by the institution and were classified as summer trainees (high school graduates or less); research technician trainees (college students); and medical student trainees (junior or senior medical students).

Students in each classification did work commensurate with their scientific backgrounds; all students participated actively in actual experimental work, learning the techniques and theory of scientific investigation. Medical student trainees also worked in the clinic with staff physicians conducting examinations of new and follow-up patients.

All students were either residents of Texas or attended college within the state. The table below indicates the number of students in the employee program, the department or section in which they worked, their home towns, and the names of their supervisors.

As much value is realized by MDAH as by the students from these summer programs. For example, one student worked at MDAH for two summers during his undergraduate career. He then obtained National Science Foundation fellowships to study at the McArdle Memorial Laboratory at the University of Wisconsin, where he obtained his Ph.D. degree in experimental oncology, and at the Max

(Student continued on Page 4)
At the completion of his studies, he returned to MDAH where he has now received a permanent staff appointment; he is working in the same department where he worked as an undergraduate trainee and is doing much of the same type of research. Through his summer work at MDAH, he developed interests which led to his lifetime career.

From the point of view of the institution, the summer science programs are one of the most fruitful of recruitment programs for graduate students on the master's and doctoral levels. By working here, students get acquainted with staff members, learn what research training is actually like and what their chosen fields will involve, and evaluate the facilities at MDAH. Instructors can begin grooming and advising prospective students approximately two years before the students enter graduate training here; these students then have well-rounded scientific backgrounds with no course deficiencies and therefore are able to devote more of their time to actual research.

Junior Science Trainees

High school students selected for the 1964 eight-week educational program were classified as junior science trainees and included the following:

- Belinda Brockman of Richardson studied under Dr. E. P. Goldschmidt of the department of biology.
- Richard Cyrus, Fort Worth, worked under Dr. David Marrack in the section of research clinical pathology.
- Thomas Hancher, Columbus, studied experimental surgery from Dr. John E. Healey, Jr.
- Darrell Hancock, Garrison (near Nacogdoches), worked in the department of physics under Dr. W. C. Dewey.
- Nathan Isgur, Houston, studied biometrics with Dr. Reimut Wette.
- Larry Lester, Houston, studied experimental anesthesiology under Dr. William Boyd.
- David Mandel, Port Arthur, worked under Dr. Manley Mandel (no relation) of the department of biology.
- Brant Mittler studied epidemiology with Miss Eleanor Macdonald.

Fort Worther Appointed to Board of Visitors

The appointment of Mr. Benjamin L. Bird, Fort Worth attorney and banker, to the Board of Visitors of the University Cancer Foundation was announced recently. The appointment of Mr. Bird was made official by action of The University of Texas Board of Regents at its meeting on June 26 and 27.

The Board of Visitors is made up of a group of prominent members of the business and professional worlds. The purpose of the Board is to give influential voice to the work being done at MDAH, to interpret the efforts to interested groups, and to mobilize resources to help advance the research and treatment efforts at the hospital and tumor institute.

Members of the Board of Visitors function as lay partners in the development of MDAH as a center for cancer treatment, research, and education, and contribute their time and energies to this purpose.

Benjamin L. Bird was born in Ryan, Indian Territory (Oklahoma). He attended Oklahoma State University in Stillwater, Oklahoma, and The University of Texas Law School, Austin, Texas. He is married to Emily Wilson Bird.

Mr. Bird is a partner in the Fort Worth law firm of Weeks, Bird, Cannon and Appleman, whose offices are in the Fort Worth National Bank Building. He is a director of the West Side State Bank in Fort Worth and of the Stratford State Bank in Stratford, Texas.

The new Board of Visitors member is chairman of the board of B. O. Bracey & Company, whose offices are in Santa Ana, California, and is a director of the Dixilyn Corporation, with headquarters in Odessa, Texas. He is also a director of the Kimber Art Foundation and of the Synod of the Texas Presbyterian Foundation.
New Staff

Newly appointed staff members at MDAH include the following:

Raymond Alexanian has accepted the appointment of assistant internist, section of experimental hematology, department of medicine. Dr. Alexanian received the M.D. degree from Harvard Medical School, served his internship at King County Hospital, and was assistant medical resident at the University of Washington Affiliated Hospitals. He served as a research fellow at the University of Washington School of Medicine, and at Christie Hospital in Manchester, England. Prior to joining the MDAH staff, Dr. Alexanian was an instructor in the department of medicine at the University of Washington School of Medicine.

George W. Batten, Jr., has joined the MDAH staff as assistant biomathematician for the biomathematics and scientific computation program. Dr. Batten received his Ph.D. degree in mathematics from Rice University where he was a National Science Foundation Fellow, a Phillips Petroleum Company Fellow, and an Air Force Fellow, all in mathematics. Predicting his staff appointment, he served as a research associate in the digital computer laboratory at the University of Illinois, where he did postgraduate work in advanced phases of mathematics.

James M. Bowen has been appointed assistant biologist (virology), section of virology and electron microscopy, department of biology. Dr. Bowen received the B.S. degree from Midwestern University in Wichita Falls, Texas, and the M.S. and Ph.D. degrees from Oregon State College, after which he was appointed a postdoctoral fellow in biology (section of virology and electron microscopy) at MDAH. He was associated with Sterling-Winthrop Research Institute in New York as an associate research bacteriologist prior to joining the staff here.

Harvey W. Coddington has been named departmental coordinator for the department of pathology. Mr. Coddington received his B.S. and M.S. degrees in bacteriology and biochemistry from the University of Illinois, and did postgraduate training in bacteriology at the University of California. Prior to joining the staff of MDAH, he held the rank of colonel in the U.S. Army Medical Service Corps. His most recent appointment was that of medical laboratory consultant and assistant chief, pathology and laboratory sciences consultant, office of the surgeon general, Washington, D.C. He has also been curator of the Medical Museum of the Armed Forces Institute of Pathology.

Glen M. Johnson has accepted the position of assistant administrator, department of patient care activities. Mr. Johnson received the B.A. degree at Wheaton College, Wheaton, Illinois, and the M.S. degree in hospital administration at the University of Minnesota. Before joining the MDAH staff, he served a residency in hospital administration at the Children's Hospital of San Francisco, California.

The appointment of Robert D. Lindberg as assistant radiotherapist, department of radiology, has been announced. Dr. Lindberg received the B.S. degree from the University of Arizona and the M.D. degree from Northwestern University Medical School. He served his internship at St. Luke's Hospital, Denver, and his residency at Penrose Cancer Hospital, Colorado Springs, Colorado. He served as a fellow in radiotherapy at MDAH prior to his appointment to the staff.

Charles M. McBride has been appointed assistant surgeon, section of experimental surgery, department of surgery. Dr. McBride received the B.Sc. degree at McGill University and the M.D. and C.M. degrees at Dalhousie University. He served residencies in surgery at the Royal Victoria Hospital, Montreal, and at Camp Hill Hospital, Halifax, Nova Scotia, Canada. Dr. McBride is a diplomate of the American Board of Surgery. Prior to joining the staff, he was recipient of a Heuermann Fellowship at MDAH.

Philip J. Migliore has been named assistant pathologist, section of clinical pathology, department of pathology. Dr. Migliore received the B.S. and M.D. degrees at the University of Pittsburgh. He served his internship and residency at the West Pennsylvania Hospital. He served as a teaching fellow at the Presbyterian Hospital and at the department of pathology, University of Pittsburgh, and as a fellow in pathology at MDAH before joining the staff.

Eldon C. Newton has joined the MDAH staff as an assistant in research for the office of research. Mr. Newton received the B.A. degree from The University of Texas. Before joining our staff, he was associated with The University of Texas as an accountant in the auditor's office and with the Great National Life Insurance Company in Austin, Texas.
Husband And Wife Volunteer

Mr. and Mrs. Harold Oehler, MDAH volunteers, are the only couple participating in the full-time activities of the Anderson volunteer program. One other couple has assisted with the program once a week and will join the full-time program as a couple in October, but as of now the Oehlers are unique.

Ada Oehler has been a volunteer for five years. She was first recruited through an appeal to her Sunday School class for volunteers to lead tours through the hospital. For three years, she came regularly once a week and conducted the tours.

Two and a half years ago, Harold Oehler retired from active business. At that time, Miss Marie Gay, director of volunteer services at MDAH, asked Mr. Oehler if he would agree to assist on a volunteer basis with some complicated filing in the MDAH business office. Mr. Oehler agreed, and worked for a year on the project!

The Oehlers may be found at the hospital on an average of two or three days a week. They consider themselves “on call,” and, usually, anytime that Miss Gay needs them, at least one of them can come.

Mrs. Oehler still conducts tours of the hospital, spends much time tending the Volunteer Shop (a concession and magazine booth located on the first floor of the hospital and operated by the volunteers), and performs many other miscellaneous duties.

Mr. Oehler also helps with the shop and has, at various times, worked with the supervisory committee of the MDAH Credit Union, the audio-visual section of the medical communications department, and, of course, the business office. Together, the Oehlers escort patients to and from nondenominational worship services held in the hospital each Sunday morning.

Miss Gay believes that the Oehlers and many others like them contribute much to Anderson’s over-all program. They assist with many routine assignments, leaving the professional staff free for other duties, and perform extra tasks which make the patients’ hospital visits more pleasant.

Above, Mr. and Mrs. Oehler are pictured behind the counter of the Volunteer Shop.

Report on Cancer of the Female Genital Tract

Dr. Ian A. McDonald, honorary secretary of the Royal College of Obstetricians and Gynaecologists (Australia), visited MDAH last year as the Robert Fowler Traveling Fellow.

Sponsored by the Anti-Cancer Council of Victoria, Australia, Dr. McDonald toured 45 leading cancer centers in the United States, Great Britain, Europe, and the Far East studying the current methods of diagnosis and treatment of malignant disease arising in the female genital tract.

At MDAH, Dr. McDonald visited with Dr. R. Lee Clark, Director and

Medical Communications Authority Invited to British Conference

Mr. Robert A. Kolvoord, head of the department of medical communications at MDAH, was invited to speak before the Royal College of Surgeons Medical Group Conference in London, September 10, 11, and 12, 1964. This is the first time that the Royal College has included discussion of medical communications on the program of its annual meeting.

Mr. Kolvoord was unable to attend the conference. However, he prepared a brief presentation on the activities of his department which was presented as part of the conference program.

The presentation consisted of recordings and slides, which, not only by their content but also by their very existence, point out the versatility of this department.

The invitation extended to Mr. Kolvoord for the initial program on medical communications is a distinction which reflects on the whole hospital as well as on the department.

The medical communications department at MDAH is extremely active. In addition to performing the usual duties such as medical records photography and illustrative art work, the department has approximately 50,000 photographic negatives and 175,000 slides on cancer, and maintains a circulating motion picture library.

Surgeon-in-Chief, and studied specifically the work of Dr. Felix Rutledge, gynecologist, and Dr. Gilbert Fletcher, radiologist.

Dr. McDonald’s travels have resulted in his publishing a report entitled The Management of Carcinoma of the Female Genital Tract. In his report, Dr. McDonald classified the types of cancer by site, divided each type into stages, and defined the stages according to the International Federation of Obstetrics and Gynecology. This standardization of classification is maintained throughout the book, thereby making the statistics comparable for different institutions.

Dr. McDonald discussed carcinoma of the uterine cervix, endometrium, ovary, vulva, vagina, and chorion. Diagnostic and treatment techniques used by the different institutions are discussed, as are survival rates obtained.


**MDAH Researchers Receive Grants**

Grants have recently been awarded to MDAH investigators to support research and education activities.

The U. S. Public Health Service has made awards to the following researchers:

**Gilbert H. Fletcher**, head of the department of radiology, has received a grant for support of the third year of a seven-year award for research in radiation—particularly supervoltage—techniques for the management of malignant diseases. One special area for study will be electron beam therapy for head and neck squamous cell carcinomas, metastatic nodes, and breast carcinoma. Radiation management alone or combined with surgical procedures for tumors of the parotid, middle ear, etc., will be studied, as will the combination of radiation with chemotherapeutic compounds. Other investigations will include the use of afterloading radioactive sources in interstitial as well as in gynecological radiation treatment; computation of complete radiation distributions around cervical radium applicators; the possibility of using a scintiscanner in two or three planes; and integration of information by a computer to describe isocount contours from volumes of elevated radioactivity within patients.

**Eugene P. Goldschmidt,** associate biologist, section of molecular biology, received a grant to support the first year of a three-year study on the mechanism of action of suppressor mutations. Allele specific suppressor mutations will be isolated in male strains of *Escherichia coli* K12 and located on the chromosome map by suitable genetic crosses. The suppressor strains will be used to isolate and study suppressor-sensitive mutants of a male-specific RNA phage. Special study will be devoted to mutations causing alterations in the phage coat protein and to the amino acid changes which occur in the mutant proteins. Other study will be devoted to the mechanism of action of the suppressor mutations using the in vitro protein synthesis system of Nirenberg and Matthaei to determine if there is an alteration in the amino acid activating system and if this alteration is caused by a change in the amino acid activating enzyme of the sRNA component of this system.

**John P. McGraw,** chief of the section of diagnostic radiology, has received support for the first year of a two-year award for training Midwestern radiologists and their technicians in the Egan technique of mammography. At least 15 teams, composed of one radiologist with one or two technicians, will be selected as principal trainees. In addition, up to 35 other radiologists and technicians will be accepted as secondary trainees, and, time permitting, another 35 individuals will receive instruction without inclusion in the statistical control. Primary trainees will be expected to pass on this training to other radiologists in the areas served by their institutions. Training will be through practical instructions in the technique of mammography; by personal instruction in the interpretation of mammograms fortified by clinical and pathological data; and through comparative readings by an instructor of 100 sets of mammograms made by the teams in their own institutions. Statistical controls will be maintained to allow for the evaluation of the results of the two-year training program.

**W. W. Sutow,** associate pediatrician, has been awarded support for the second year of his five-year Research Career Award (*News Letter, July, 1963*). At the present, Dr. Sutow is continuing clinical studies of new drugs and new approaches to drug therapy in children with cancer. He is also conducting a detailed analysis of clinical data on his patients to characterize, if possible, the biological behavior of different types of malignant tumors in children of different ages.

An additional monetary award was granted to MDAH by the U. S. Public Health Service to support general research needs. The sum of this grant was determined by the amount of grant funds currently being utilized at this institution and the total quantity of research in progress. Funds in this award will be used to balance and coordinate the total institutional research effort. The research effort at MDAH covers basic science programs as well as detailed clinical studies.

**Daniel Billen,** chief of the section of radiation biology, has received an award from the Atomic Energy Commission to study alterations induced by X rays and ultraviolet light on the synthesis and maintenance of macro-molecular components within micro-organisms. Alterations are induced in the sequential replication of DNA in several strains of *E. coli* by X-irradiation and ultraviolet irradiation. The synthesis of RNA components is also being studied following X-irradiation of cells.

**T. C. Hsu,** chief of the section of cytology, has been awarded a grant from the Damon Runyon Foundation to study the structure and function of chromosomes. Methods of high resolution autoradiography which will eliminate background and random decay of isotope in areas not heavily labeled will be used. Histochemical and autoradiographic techniques will be applied to study the kinetics of RNA synthesis and movement in tissue cultures of isolated neurons from spinal ganglia of chick embryos. DNA synthesis patterns among chromosomes of mammalian cells from

(Grants, continued on Page 8)
1963-1964 Year Book of Cancer Published

The eighth edition of the *Year Book of Cancer* (1963-1964 series) has just been published by the Year Book Medical Publishers, Inc., of Chicago, who have published the series since 1956.

The *Year Book* was compiled and edited by R. Lee Clark, MDAH Director and Surgeon-in-Chief, and Russell W. Cumley, head of the department of publications at MDAH; they were assisted by an editorial board of 137 physicians and scientists throughout the world who aided in surveying the year's journal literature pertinent to the current status of cancer research and treatment.

Included in the 576-page *Year Book* are abstracts of 335 articles. Each article is abstracted to its working essence with the "meat" left and the "fat" trimmed off. On the newer findings and wherever else necessary, 12,000 words of pertinent editorial comments help the reader to evaluate the material. The book is illustrated with 197 figures, photomicrographs, radiographic charts, and diagrams.

A special feature of the volume is an article by Eleanor J. Macdonald, MDAH epidemiologist, and Dr. Maynard Hart on "The El Paso County Medical Society Follow-up Program." This paper explains how a cancer record registry and follow-up program were established in El Paso County, Texas, and how virtually complete statistics on the incidence of cancer in a totally defined population were obtained. Further, since this particular population is composed of different ethnic groups, comparative statistics on incidence of different types of cancer in different ethnic groups are available from this study.

Copies of the *Year Book of Cancer* may be obtained from Year Book Medical Publishers, Inc., 35 East Wacker Drive, Chicago, Illinois.

**Staff Publications**


