Winter 1972

Focal Spot, Winter 1972

FOCAL SPOT

A NEWSLETTER OF MALLINCKRODT INSTITUTE OF RADIOLOGY

VOLUME 1 WINTER, 1972 NUMBER 5

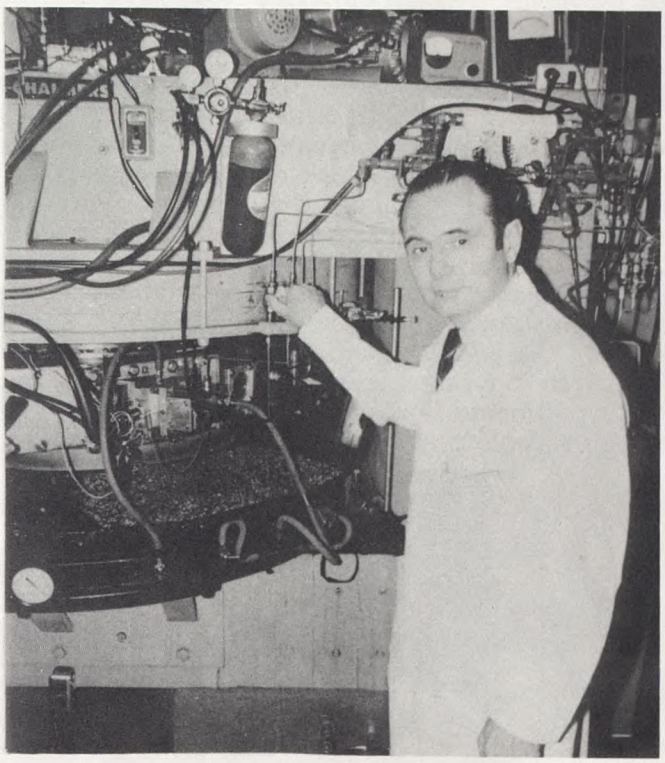
Mallinckrodt Institute of Radiology and the Cyclotron

FOURTH INSTALLMENT of a brief history of the Washington University Department of Radiology by Dr. Ronald G. Evens, Director of MIR.

In 1938, a decision was made by leaders at the Institute and University that the most promising field of research for advancements in radiology was the application of the new and rapidly developing field of nuclear physics to problems in medicine and biology. In that year, funds were made available from endowment at the Institute and a grant was obtained from the Rockefeller Foundation in order to design and build a cyclotron for medical use. The physicist in charge of the project was a consultant to the Institute and professor of physics, Dr. Arthur L. Hughes.

Building of the cyclotron began in 1940 on the hilltop campus; this site was selected because of the space needs which could not be adequately met at the medical campus. The cyclotron was producing various isotopes in 1942 and isotopes of cobalt, iron, and phosphorus were delivered to Dr. Carl Moore's laboratory for medical research use on March 25, 1942. The first injection of radioactive phosphorus was given to a patient in April of that year by Dr. Moore and his associates.

In 1944, the United States government requested that the cyclotron be put at the disposal of the government for certain secret experiments. The cyclotron became a part of activities devoted to the Manhattan Project and the subsequent development of the Atomic bomb and more than half of the original plutonium for the Manhattan Project was produced at Washington University.



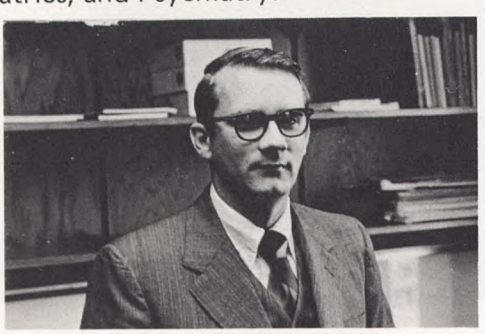
DR. MICHEL TER-POGOSSIAN

The Cyclotron

The operation of the cyclotron was completely returned to the Mallinckrodt Institute at the close of World War II. During the next twelve years the cyclotron was utilized primarily by the Department of Physics with cooperative projects with various departments at the Medical School.

In 1958, Michel Ter-Pogossian, Ph.D. and William Powers, M.D., both of the Institute's staff, became interested in the possibility of utilizing cyclotron produced radioactive oxygen to study the distribution of oxygen in malignant tumors. Successful pilot experiments were carried out at the hilltop campus cyclotron and financial support was obtained from the Atomic Energy Commission in 1959 to support a series of experiments developing medically significant short-lived radioactive isotopes. It soon became evident that the facilities of the hilltop cyclotron were inadequate for investigations involving human subjects and financial support was obtained for the installation of a cyclotron within the Washington University Medical School. The Board of Trustees of Barnard Hospital generously provided an area in the ground floor of their building with the cooperation of the Radiation Therapy Division of the Institute.

The Medical School cyclotron was in operation by 1964 and has been in continued and increasing operation under the direction of Michel Ter-Pogossian, Ph.D. The Institute's research efforts with the application of cyclotron-produced isotopes in biology and medicine have resulted in a number of publications and stimulated the installation of cyclotrons in other medical centers, including the Argonne Cancer Hospital in Chicago, University of California in Los Angeles, Massachusetts General Hospital, and the Sloan-Kettering Institute. The cyclotron is a great asset of the Institute and is used in a cooperative manner by physicists, chemists, and physicians from the Departments of Radiology, Surgery, Neurology, Medicine, Pediatrics, and Psychiatry.



Dr. Ronald G. Evens, Director of MIR

MALLINCKRODT PHYSICIANS TO SPEAK AT CARDIAC POSTGRADUATE COURSE

MIR and the American College of Chest Physicians will sponsor a post-graduate course: "Recent Advances in Cardiac Radiology" to be held at the Chase Park Plaza Hotel January 26-27, 1973. The purpose of this course is to discuss new methods and techniques in cardiac radiology and how cardiac radiology can contribute to the refined diagnosis required by modern techniques of heart surgery.

Participating members of the MIR staff who have been invited to speak include: Drs. Ronald G. Evens, E. James Potchen, Jerome Cox, Nikolaus Schad, Roger Secker-Walker, Robert McKnight and Harold Kunz.

CANCER BIOLOGY TRAINING PROGRAM

The Section of Cancer Biology, reports Dr. Fred Valeriote, has initiated a 12-week (full time) Oncology program to be held on an annual basis commencing the second week in January. The object of this course is to present a number of concepts necessary to the understanding of tumor biology and cancer therapy as well as to teach experimental technique which may be used to answer questions related to Oncology. The course material will consist of three sets of formal lectures, a series of laboratory exercises, and discussions with staff scientists and clinicians on the applications and relevance of the experiments to clinical practice in Oncology.

Eight applicants will be accepted in January, 1973, and individuals interested in taking the course should contact Dr. Valeriote before December 15, 1972.

"Magazines, Please"

In order to make the patient waiting rooms more enjoyable and comfortable for our many patients and their families, we would appreciate donations of any recent magazines. This is a continuous problem so immediate and future contributions to the reading tables will be greatly appreciated. Magazines may be left in the Public Relations Office on the second floor.

MIR HOSTS SEMINAR ON NUCLEAR MEDICINE TECHNOLOGY

On Friday and Saturday, November 10 and 11, 1972, the Continuing Education Committee of the Technologist Section, Society of Nuclear Medicine held a successful Seminar on Nuclear Medicine Technology at the Mallinckrodt Institute of Radiology.

Over one hundred and thirty participants registered for this educational experience designed to present information congruent with increases in the scope of responsibilities of technologists, their educational needs and required areas of expertise in the dynamic field of Nuclear Medicine. A wide geographical representation was realized by participants coming from all over the United States and Canada.

The Mallinckrodt faculty who participated in the Seminar are:

Dr. Michael Welch — Radiopharmaceutical Production and Quality Control

Dr. Ronald G. Evens — Personnel Management

Dr. E. James Potchen — Legal Aspects of Nuclear Medicine

Dr. Roger Secker-Walker — Practical Applications of Ventilation-Perfusion Studies

Dr. Barry Siegel — Bone Imaging: New Developments

The success of this Seminar has resulted in the Technologist Section's Executive Committee recommending that this Seminar become an annual event in St. Louis and to expand this type of on-going educational activity by organizing another to be held in the early part of the year. Leo Lopez, Membership Chairman and Chairman-Elect of the Society encourages all who did not attend to take advantage of the next continuing educational seminar.

ABDOMINAL RADIOLOGY

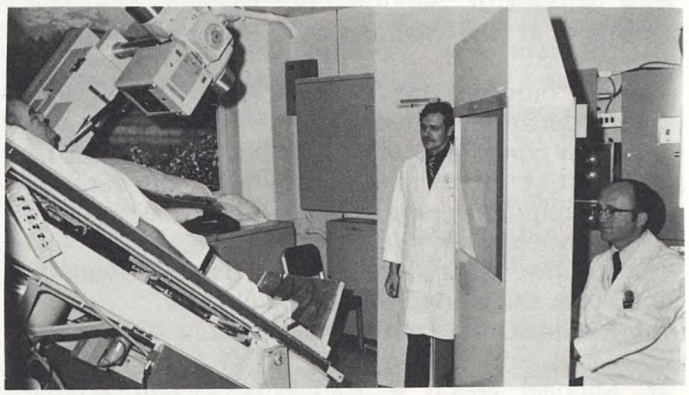
The Abdomen Section, one of the six diagnostic radiology sections in Mallinckrodt Institute, encompasses all gastrointestinal and genitourinary radiology as well as all abdominal special procedures including visceral angiography and lymphangiography. Under the direction of Dr. Robert Stanley and a full time staff including Drs. Albert Hesker, Enrique Cubillo, Leland Melson and five to seven radiology residents the Abdomen Section handles a daily average of 45 gastrointestinal fluoroscopic examinations, 25 urologic examinations, and a variable number of other abdominal radiographic studies.

Dr. Enrique Cubillo reviews an intravenous cholangiogram with Dr. Anthony Merlis while Dr. Robert Stanley discusses a barium enema exam with Dr. R. Gilbert Jost. Television monitors in background allow continuous observation of fluoroscopic exams in progress.

Since July of 1972 the Abdomen Section has been performing intravenous pyelograms and barium enemas on the same patients in one morning, representing a saving of at least one hospital day and necessitating only one period of preparation. While in no way representing a new concept, this has nevertheless improved the service to patients and clinicians at Mallinckrodt Institute. Formerly done by the urology staff, intravenous pyelograms on patients in urology service have been performed by the radiology department since July, 1972. Better service to the urologists and their patients is the anticipated result of the change.

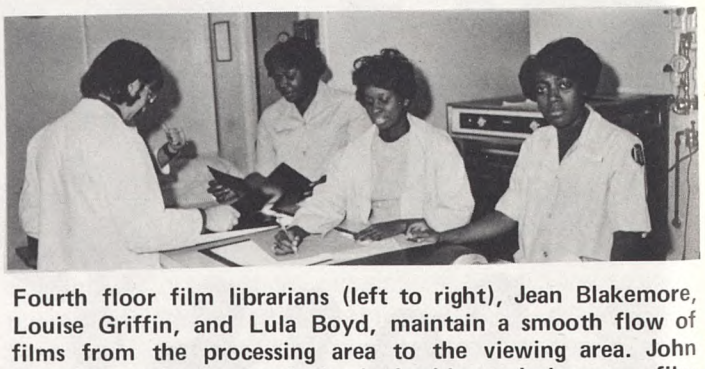
In addition to the standard gastrointestinal studies, namely barium swallows, UGI's, small bowel series, barium enemas and oral cholecystograms, other special examinations of the abdomen are performed on the fourth floor. Intravenous cholangiograms, performed on the average of one or two per day, demonstrate the biliary ducts and frequently help to

From Th



Dr. Robert Stanley, Chief of Abdominal Radiology, positions the patient, Mr. Robert Bell, during an intravenous cholangiogram and prepares to take films by remote control on the Telegem unit. He is assisted by Dennis Engelage, R.T., Assistant Technical Supervisor.

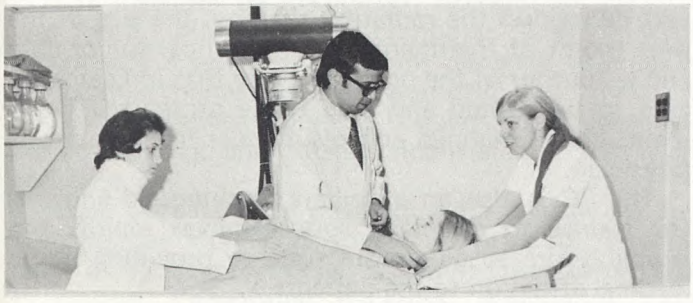
explain the presence of abdominal pain or intermittent jaundice. Body section technique (laminography) is utilized in every intravenous cholangiogram. Percutaneous transhepatic cholangiograms are performed in patients with suspected complete or near complete bile duct obstruction and are generally done preoperatively. This will frequently clarify both the site of obstruction as well as the nature of it, whether stone, stricture, or tumor. Pancreatic duct studies via a catheter inserted directly into the ampulla through a duodenoscope are also performed on the fourth floor in cooperation with the gastroenterologists.



Fourth floor film librarians (left to right), Jean Blakemore, Louise Griffin, and Lula Boyd, maintain a smooth flow of films from the processing area to the viewing area. John Mazanec, student technologist, is checking technique on a film study.

The Diaphragm To The Inguinal Ligament

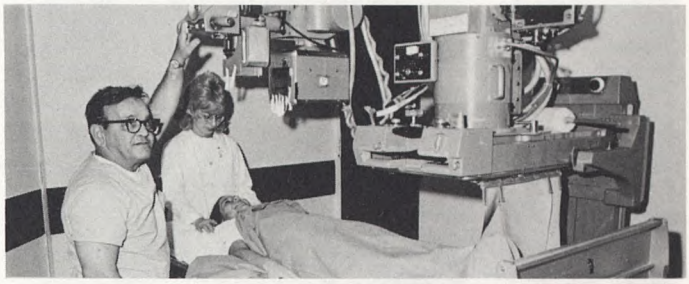
Hysterosalpingograms, defining the uterine cavity and patency of the Fallopian tubes, and pneumogynegrams, providing information regarding the size, shape and presence of ovaries and uterus, are gynecologic radiology procedures performed in this section. Lymphangiograms, evaluating the characteristics of the lymph nodes in the pelvis and abdomen with regard to the presence or absence of malignant tumor, are performed either on the third or fourth floor by the Abdomen Section. These have become a frequently utilized study and average one to two per day.



Joe DiCroce, R.T., Technical Supervisor of 4th floor, Coretta Schroer, R.T., and Julie Blanton, R.T., position patient for intravenous pyelogram on the uroradiologic table in one of five radiographic rooms so equipped. Karen Yeager, student technologist, acts as patient.

Drs. Albert Hesker and Enrique Cubillo recently investigated the applications of ultrasonography, A-mode, B-mode, and M-mode in the diagnosis of various abdominal disease states as well as in the evaluation of pregnancy. They hope to be ready to offer this new diagnostic service within the next few months. Ultrasonography is a rapid, non-invasive diagnostic technique able to distinguish solid tumors from fluid filled cystic masses. It can produce cross sectional displays of the abdomen in various planes and provide complementary information to what is available through radiographic techniques. Time-motion studies applicable to cardiac conditions will also be investigated and available.

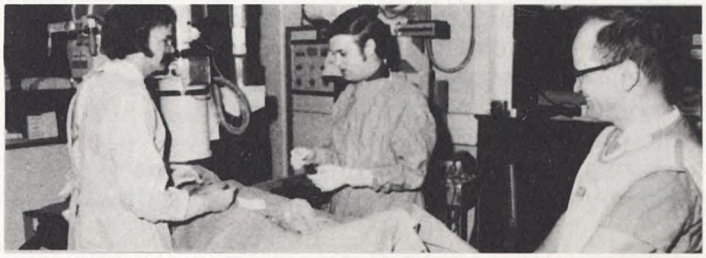
The technical staff of the fourth floor is under the direction of Joe DiCroce, R.T., Technical Supervisor assisted by Dennis Engelage, R.T., Assistant Supervisor and a team of technologists who are specialists in GI and GU radiography.



Sammy Palazzolo, R.T., and Cheryl Palmquist, R.T., prepare to take overhead films on a patient receiving the upper gastrointestinal examination. Mary Pelly, student technologist, acts as patient.

In addition to four standard radiographic-fluoroscopic rooms, six radiographic rooms, and the Telegem, a remote control fluoroscopic room, the fourth floor facilities include a complete new fluoroscopic suite equipped with a 100 mm spot film camera and the very latest image amplification system.

A large volume of patients are studied in the Abdominal angiography suite on the third floor where increasing experience is being gained in the diagnosis and treatment of gastrointestinal bleeding by arteriographic methods. Newer concepts in magnification technique and angiotomography have improved the diagnostic yield in other areas of renal and visceral angiography.



Drs. Robert Francis and Albert Hesker perform a renal arteriogram in the abdominal angiogram suite assisted by Obed Knutson, R.T.

SOVIET SCIENTISTS VISIT MALLINCKRODT

Dr. William E. Powers explains PC computer to Russian scientists.

Professor Anatoli Iv. Pirogov, the Deputy Director of The Herzen Oncological Institute in Moscow and Dr. Ekaterina Kiseleva, the Chief of Radiotherapy Department at the same institute, are presently touring the United States at the invitation of the National Cancer Institute in Bethesda, Maryland.

They were most interested in our patient care, research and the Cancer Teaching Program at Mallinckrodt Institute. It is hoped that eventually the U.S.S.R. and the United States will be able to have cooperative studies and possibly an exchange of personnel for teaching programs.

While touring the Division of Radiation Oncology on November 20, 1972, Dr. Pirogov and Dr. Kiseleva were most impressed with our computer facilities, which they thought to be quite unique and exciting, including our telephone communication systems for the transmission of patient contours and treatment plans providing sophisticated service to regional radiologists and radiation therapists.

During their brief visit, the visitors were entertained by the entire Radiation Oncology staff.

PC COMPUTER

HELPS IN CANCER TREATMENT

A computer called the Programmed Console (PC) of the Washington University Treatment Planning Center was developed and built by the Biomedical Computer Laboratory under the direction of Dr. Jerome Cox in 1966 to determine the best plan for radiation treatment of patients with cancer.

The PC is a small digital computer system used for external radiation therapy and radium implant computations. This computer allows the physician to work directly with the problem without the aid of computer staff as the program deals with "doctor-type" data and gives answers in the same medically comprehensible form. The patient's physician transmits an anatomical drawing with the localization of the malignant tumor. Along with this information, the physician must record the type of machine that will be used in the radiation therapy, the size of the port (point of treatment entry), minimal tumor dose and a contour of the patient's body that indicates the area to be treated and area to be protected. Treatment is then planned and results sent to the referring physician.

The PC is also an excellent teaching aid allowing the trainee to calculate isodose curves rapidly and enabling him to give more time to providing better medical attention to the patients.

Dr. William E. Powers, Director of Radiation Oncology at MIR, uses this computer for treatment of patients at the Institute while Dr. Carlos Perez, Professor of Radiology, uses the computer for treatment planning in about 25 centers in Missouri and southern Illinois plus other centers as far as San Jose, California. Necessary information is sent from the out-of-town centers to the Treatment Planning Center via a Xerox telecopier.

Helen Fortenas, Dosimetrist at PC Computer.

MIRAC IS BORN

As an organized activity and department of the Washington University School of Medicine, "The Mallinckrodt Institute of Radiology," provides all radiological services required by the patients, both inpatient and outpatients of the Barnes and Allied Hospitals and St. Louis Children's Hospital. In addition, many private physicians refer their patients to our department. These services presently include approximately 165,000 diagnostic x-ray procedures per year, 12,000 nuclear medicine procedures and 30,000 radiation therapy treatments. With such a significant volume of activity it became apparent that an efficient system to process the required paper work to bill and account for such services had to be developed.

On July 1, 1972, after six months of evaluating numerous alternative objectives "MIRAC" (Mallinckrodt Institute of Radiology Accounting System) was born. MIRAC is a computer based system comprising a series of programs designed to provide our billing departments (Diagnostic and Therapy) with the necessary tools to properly administer the patient billing, and related financial and statistical activities.

Given the charge of developing this system by our Director, Dr. Ronald G. Evens, the principal research team of Mr. Hardy Fuchs, Assistant Director of Data Processing, Computing Facilities, Washington University, and Mr. Robert L. Wagner, Business Administrator began the task of assembling the program and system design on July 1, 1972.

Dr. Ronald G. Evens, Director of MIR, gives charge of developing a computerized accounting system to Robert L. Wagner, Business Administrator of MIR, and Hardy Fuchs, Assistant Director of Data Processing, Computing Facilities, Washington University.

Extensive interviews were held with everyone who would interact with or use the system. This included the key financial and data processing people at both Barnes and Children's Hospitals, physicians, technologists, third party payors, insurance companies, and the administrative and operating personnel responsible for the billing operations of their division. The prime development team of Mr. William R. Brown, Mrs. Sue Ronimous, Mrs. Cathy Gamble, Mr. Richard Baum, Mr. Fuchs and Mr. Wagner reviewed in several meetings the preliminary program draft developed and compiled by Mr. Hardy Fuchs and on October 1, 1972 the group approved a final draft of the program.

The prime development team approves the final draft of the program. Pictured left to right are: Sue Ronimous, William Brown, Cathy Gamble, Robert Wagner, Hardy Fuchs and Richard Baum.

The new system, "MIRAC," will include such features as computerized billing calculations, daily billing directly to hospitals, daily posting to outpatient accounts receivable, daily statistical summaries and tallies – (today – month to date – year to date), open item statements and aged accounts receivable, cycle billing at the users discretion, third party and insurance billing, collection aids, monthly collection analysis, credit bureau processing and analysis, monthly statistic report of clinical exam performed and numerous other features.

MIRAC IS BORN

On November 1, 1972, Mr. Fuchs completed the program preparation work, and test data, prepared by the MIR staff, and program controls, were loaded into the computer and informal testing was begun.

Ready to input, test, and verify the program, Cathy Gamble, Robert Wagner, Richard Baum, Hardy Fuchs, and William Brown are pictured at the Data Processing Facilities in Sever Hall.

The MIR billing personnel began formal testing on November 15, 1972, using authentic patient data in order to evaluate the program's accuracy, reliability, and efficiency. On the job training was provided for the personnel responsible for operating the system and a complete training and operations manual was developed for use by the supervisory staff.

Responsible for implementing and operating the program is the MIR first floor accounting department staff. Pictured clockwise, are Dianne Van Doren (front), Annerose Klotz, Marlo Brais, Evelyn Clark, Bill Brown, Sharon Gibbs, Sharon Piraino, Patricia Dennis, Beverly Harper, Carolyn Potter, Deborah Rice, Sue Ronimous, Shirley Jones and Ron Hoppe.

On December 1, 1972 "MIRAC" became fully operational with full conversion and testing of all accounts completed. This system has proven that it will be cheaper to operate than the previous system, that it will improve cash flow, reduce clerical hours and resource expenditures, provide financial and internal controls and the tools necessary to establish intelligent management decisions. Achieving our objectives will be considerably enhanced with the utilization of a data management system derived through the use of electronic data processing.

Alice Wolf, Cashier

MIRAC'S operation also involves the Radiation Therapy accounting and insurance assistance staff. Pictured are Richard Baum, Supervisor, Ernestine Irving, Louise Anderson, and Alice Mack.

"MIRAC" Clinic Management System Serves the research, teaching, financial, management, and medical needs of the Mallinckrodt Institute of Radiology.

MANAGEMENT

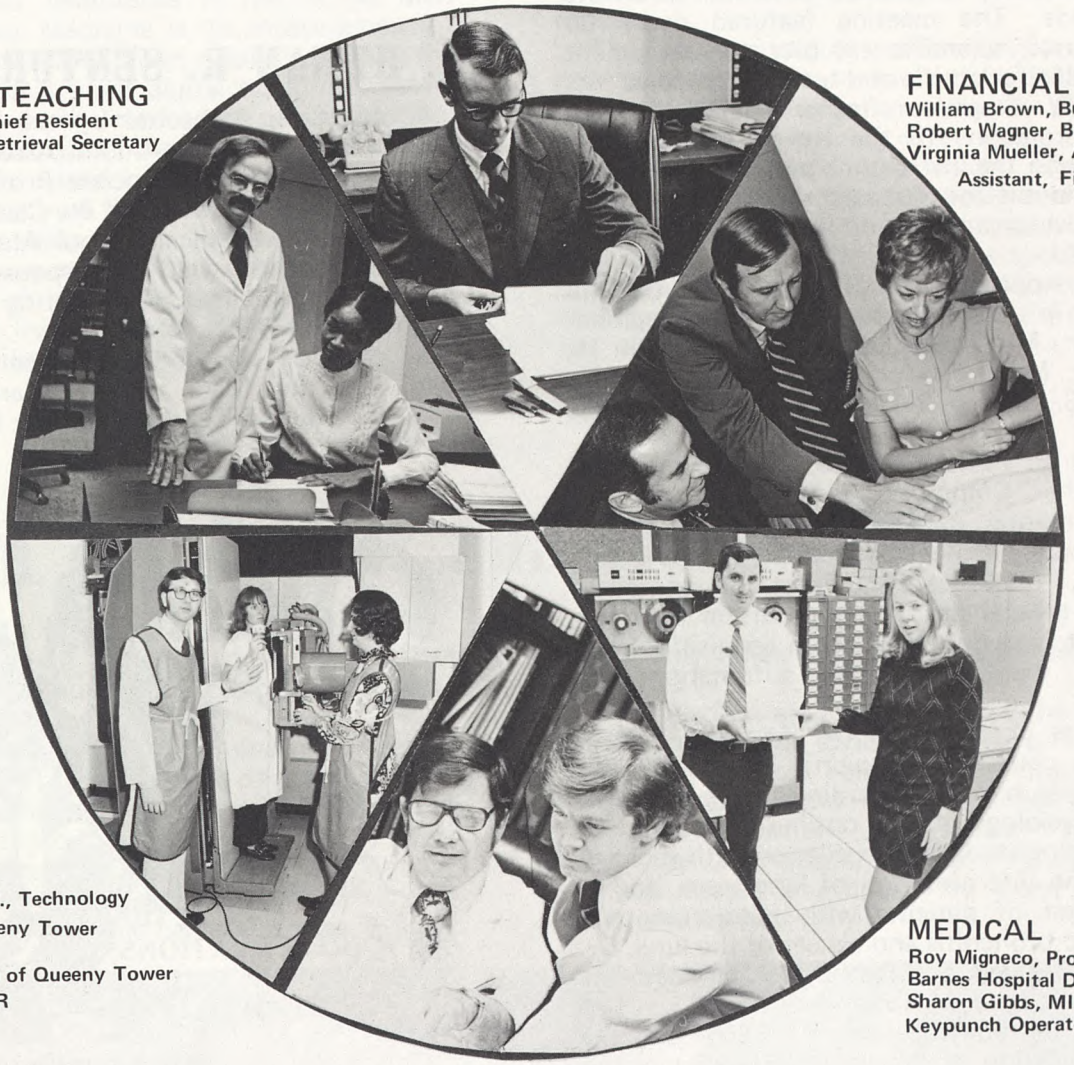
Dr. Ronald Evens,
Director of MIR

RESEARCH AND TEACHING

Dr. Robert Francis, Co-Chief Resident
Bettye Redmond, Data Retrieval Secretary

FINANCIAL

William Brown, Business Manager
Robert Wagner, Business Administrato
Virginia Mueller, Administrative Assistant, Financial Affairs



MEDICAL

Robert Ronecker, R.T., Technology Supervisor of Queeny Tower
Cora Stock, Patient
Dr. Emily Smith, Head of Queeny Tower Division of MIR

MEDICAL

Roy Migneco, Programmer
Barnes Hospital Data Processing Facilit
Sharon Gibbs, MIR Accounting Dept. Keypunch Operator

MEDICAL

Armand Diaz, Technical Administrator of MIR
Gary Brink, Chief Technologist and Assistant Director of Education

MALLINCKRODT STAFF MEMBERS SPARK 58TH R.S.N.A. ASSEMBLY

When the Radiological Society of North America convened at Chicago's Palmer House, November 26—December 3, 1972, MIR was well represented by residents and faculty in attendance as well as on the speaker agenda. The meeting featured over 100 refresher courses, scientific exhibits and equipment displays as well as scientific and technical papers.

Dr. Tom W. Staple's refresher course "Double Contrast Arthrography of the Knee" included material based upon the instructor's personal experience with 2,500 double-contrast arthrograms. The procedure was demonstrated and pitfalls of interpretation discussed.

"A New Approach to Transmission Gamma Densigraphy in the Measurement of Regional Ventilation in Man" was presented by Roger H. Secker-Walker, M.D., Rexford L. Hill, M.S., Joanne Markham, B.S., James Baker, B.S., and E. James Potchen, M.D.

Dr. William E. Powers' course, "Treatment Planning and Other Computer Techniques" included detailed information on the use of computers in radiation therapy planning with examples indicating the accuracy, relevance, and cost of computer systems. The general use of computers in radiation therapy with regard to patient data acquisition, and retrieval and therapy machine automation was demonstrated.

Dr. E. James Potchen and Dr. Roger H. Secker-Walker gave a course in "Regional Ventilation and Perfusion Studies in Man", including a review of basic pulmonary physiology and an outline of the advantages of combining studies of ventilation with those of perfusion in the interpretation of lung scans, and in the management of patients with pulmonary embolism, chronic bronchitis and cancer of the lung. Dr. Potchen also presided during the Nuclear Medicine Refresher Courses held on November 29, 1972.

Included at the Joint Session of RSNA and the American Association of Physicists in Medicine, was the course by Carlos A. Perez, M.D., William E. Powers, M.D., Bruce J. Walz, M.D., and Arnold Feldman, Ph.D., entitled "Individualized Compensating Filter and Dose Optimization in Pelvic Irradiation."

These and other refresher courses for senior radiology residents were designed to facilitate a dialogue between students in radiology and leading teachers and practitioners in the field. The intricacies, problems, and philosophy of certain broad fields of radiological practice were emphasized.

DR. HYMAN R. SENTURIA HONORE

A reception, sponsored by the Washington University Medical Center Alumni Association, honored Hyman R. Senturia, Associate Professor of Clinical Radiology, and a graduate of the Class of '33.

Attended by Medical School Alumni and former MIR house officers and their spouses, the reception was held at the Palmer House during the 58th Annual Meeting of the R.S.N.A.

Dr. Senturia was voted "Clinical Teacher of the Year" by the Class of 1972 and subsequently appointed Alumni Teaching Scholar by the School of Medicine.

NUCLEAR MEDICINE:

NEW DEVELOPMENTS

Among the new techniques in use in the MIR Division of Nuclear Medicine is the measurement of regional ventilation during quiet respiration using the gamma camera and a small digital computer. Novel features here include the method of data collection, the method of calculating the efficiency of ventilation, the use of a tissue background correction to increase the accuracy of the method and a new way of presenting the data as "functional images" for comparison with conventional lung scans. All the data analysis is done on the same small computer. This method has been used on more than 250 occasions and has been clinically useful in patients with pulmonary embolism, chronic bronchitis and lung cancer.

The measurement of cardiac ejection fraction is a new technique used to study the effect of coronary artery by-pass operations on cardiac function, and also to study the effects of a variety of drugs that might influence cardiac function. The method involves collecting images of both end-diastole and end-systole during each heart beat (using the electrocardiogram to time the images), a special method to determine the blood and tissue content of radioactivity surrounding the heart, and the calculation of the efficiency of the heart beat from its change in volume.

Creative Art Exhibit Initiated In MIR

An art exhibit area is now located on the first floor of Mallinckrodt Institute of Radiology in the hall adjacent to Scarpellino Auditorium.

The current exhibit of Wild Animals is presented by Norman Hente, R.T., Supervisor of the MIR Photo Lab. Norman has been in photography for 12 years and the official photographer for MIR for 6½ years. He has done commercial and advertising photography, enjoys shooting photos of animals, flowers, and wild life in general. The camera he uses is 35mm single lens reflex with Tri-X black and white film, ASA 400.

The display area will be used for all types of creative or artistic exhibits and persons interested in having their work featured are urged to contact Virginia Trent, Public Relations Director for MIR.

Future exhibitions will include "Photos of Children" by Gail Cissna, Assistant Photographer, and "Mixed Media Paintings" by Deen Getz, Public Relations Assistant.

Norman Hente,

Gail Cissna

Deen Getz


MIR
HIGH SCHOOL HONOR STUDENTS TOUR MIR


GAMUT
4th DISTRICT M.S.R.T. MEETING

WHAT'S UP, DOC?

DR. STUART SAGEL spent a week during October in Rochester, New York with the American College of Radiology Program for new methods in training radiology residents and students. Dr. Sagel will be implementing this material at the Mallinckrodt Institute in the near future.

DR. NIKOLAUS SCHAD was invited to give several talks at the first postgraduate course in thoracic and abdominal angiography in Rome. His lecture on angiographic room design and equipment was prepared by Dr. Schad and Mr. Armand Diaz. Other subjects discussed by Dr. Schad were modern injectors and the effect of contrast material on the myocardium. He also participated at two roundtable conferences regarding computer application in radiology and coronary artery disease. After this meeting Dr. Schad lectured on "Cardiovascular Radiological Techniques" at the postgraduate course in cardiology held in Anacona, Italy.

DRS. ENRIQUE CUBILLO, ALBERT HESKER and MR. ARMAND DIAZ attended the 17th Annual Meeting of the American Institute of Ultrasound in Medicine, October 29 to November 1, 1972, in Philadelphia, Pennsylvania.

DR. JOHN FORREST recently visited Departments of Radiology in New England including: Massachusetts General, Peter Bent Brigham, Yale, and New Haven where he gave lectures on histoplasmosis and held teaching conferences for the residents.

DR. TOM STAPLE will serve as a faculty member of the postgraduate course on "Arthrography, Lymphography, and Polytomography", organized by DRS. DAVID DAVIS and P. RUBEN KOEHLER for presentation in Las Vegas, January, 1973.

DR. WILLIAM E. POWERS has accepted a two year term on the Radiation Advisory Committee of the Environment Protection Agency, Washington, D.C.

ROGER H. SECKER-WALKER M.B., M.R.C.P. presented "The Measurement of Ventilation in Man" at the Annual meeting of the Society of Nuclear Medicine in Boston, July 1972. He made presentations on various aspects of this work to the Association of University Radiologists in Albuquerque, to the Annual Meeting of the American Roentgen Ray Society in Washington, D.C. and also to the 3rd Conference on Computer Applications in Radiology.

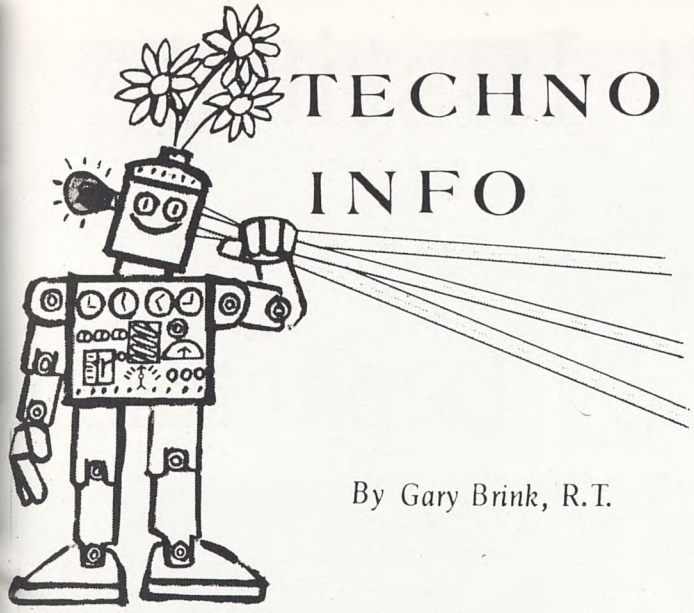
"Particle Accelerators in Radiation Therapy", a conference held in October in Los Alamos, New Mexico, was attended by young scientists and physicians from the United States, England, Canada, and The Netherlands. Chairman of the Conference was DR. WILLIAM E. POWERS.

DR. NIKOLAUS SCHAD was elected a Fellow of the American College of Chest Physicians.

DRS. ALBERT HESKER and LEE MELSON attended the recent meeting, Angiography: 1972, sponsored by Harvard Medical School, October 12-14, in Boston, Massachusetts.

DRS. TOM STAPLE and JOHNNY BLIZNAK will present an exhibit February 11, 1973 on "Congenital Vascular Malformation of the Extremity" at the American Academy of Orthopedic Surgeons to be held in Las Vegas, Nevada.

DR. WILLIAM E. POWERS spoke on "Combined Therapy" at the Plenary Session of the 7th National Cancer Conference, Sept. 27-29 in Los Angeles, California. His lecture followed an address by President Nixon.



TECHNO INFO

By Gary Brink, R.T.

ARMAND DIAZ, R.N., R.T. recently returned from a trip to Philadelphia where he attended the annual meeting of the American Institute of Ultrasound in Medicine. While in the eastern part of the U.S., Mr. Diaz toured the Kodak Park – the manufacturing plant in which all Kodak photographic materials are produced. Also on his itinerary was a visit to Kodak's Medical Education Center (MEC). The MEC is involved in various activities including the development of audio-visual aids for teaching, and conducting on-going courses in management and computer technology.

PHIL SOTIR, R.T. was the guest speaker at a recent meeting of the students and parents of the local St. Margaret of Scotland Parish High School. In his presentation entitled "Your Future in Radiology", Mr. Sotir explained the many career opportunities available in the areas of radiology and radiologic technology and also stressed the importance of early vocational commitments for students graduating from high school.

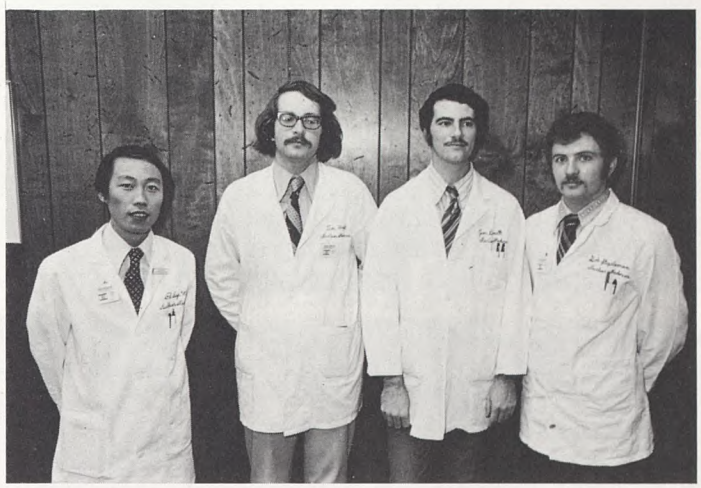
GARY SHACKELFORD, M.D. addressed the members of the 4th District, Missouri Society of Radiologic Technologists during their September meeting held in Scarpellino Auditorium. Dr. Shackelford spoke about new radiological procedures in Pediatric X-ray. One of several new procedures discussed was "Herniography", a procedure that the Pediatric section in Mallinckrodt has been very instrumental in developing during the past two years.

GARY BRINK, R.T., editor of the state x-ray society publication, "Missouri Minutes", has been reappointed editor for the next two years.

At the Annual Meeting of the Missouri Society of Radiologic Technologists held in September, the following Mallinckrodt technologists and students received awards for their technical film exhibits: CORETTA SCHROER, R.T. and OBED KNUDTSON, B.S., R.T. – 2nd place, technologist category; DIANE LLOYD – 1st place, student category; MICHAEL ALBERTINA – 3rd place, student category.

ROBERT RONECKER, R.T., is the newly appointed Supervisor of Queeny Tower X-ray. Mr. Ronecker has been an employee of MIR since 1969 and has worked during the past four years as a staff radiologic technologist on the second floor of the Mallinckrodt Building.

JAMES E. HARTER, R.T., MIR Technologist in Radiation Oncology, and MARSHA KAYE PAYNE, R.N., were married in Eldorado Springs, Missouri, on Saturday, November 18, 1972.

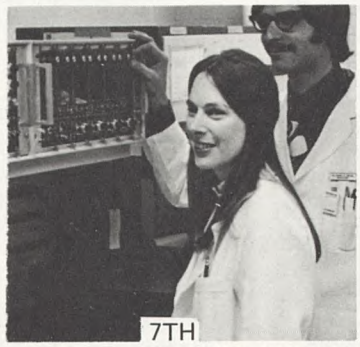


NUCLEAR MEDICINE TECHNOLOGY STUDENTS

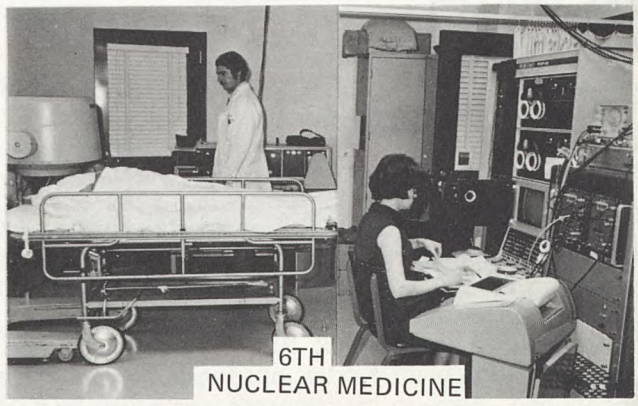
Students enrolled in Nuclear Medicine Technology postgraduate course are, left to right, Il Sup Kim, Tim Wright, Jim Barnett, and Bob Stapleman, R.T.

Mallinckrodt Institute of Radiology — A Vertical Radiology Department

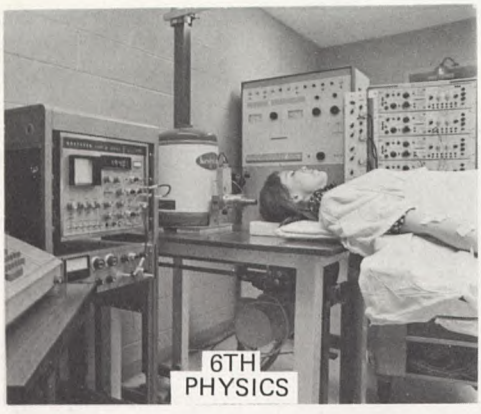
8TH FLOOR
TEACHING, ADMINISTRATION
MEDICAL LIBRARY



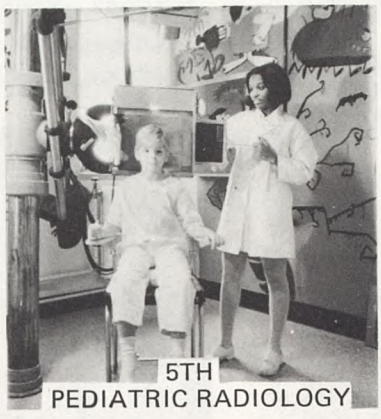
7TH
RESEARCH { NUCLEAR MED
THERAPY



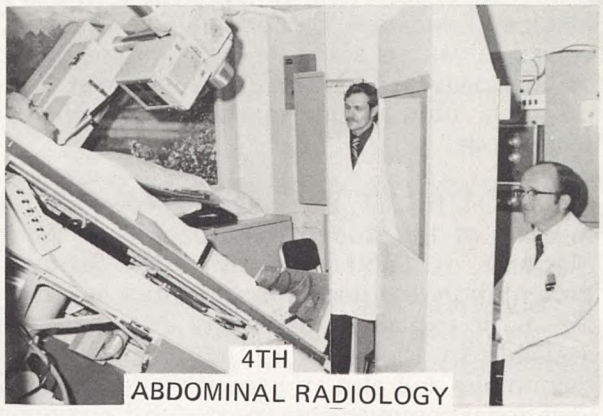
6TH
NUCLEAR MEDICINE



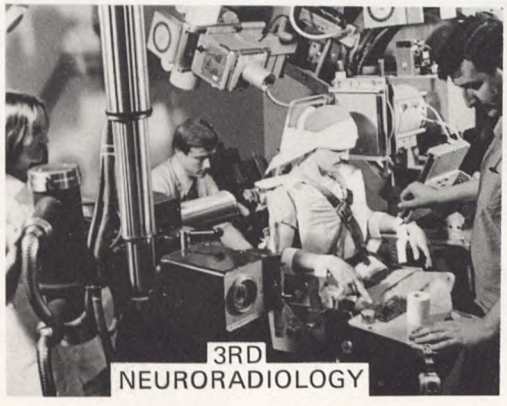
6TH
PHYSICS



5TH
PEDIATRIC RADIOLOGY

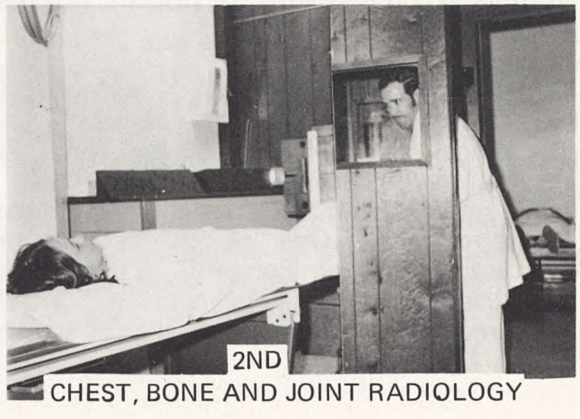


4TH
ABDOMINAL RADIOLOGY



3RD
NEURORADIOLOGY

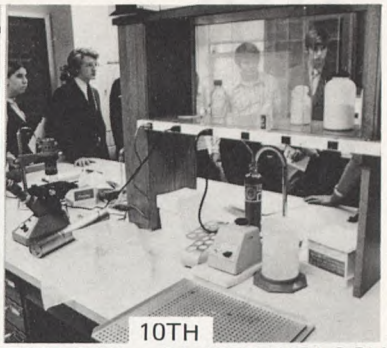
3RD
CARDIAC



2ND
CHEST, BONE AND JOINT RADIOLOGY

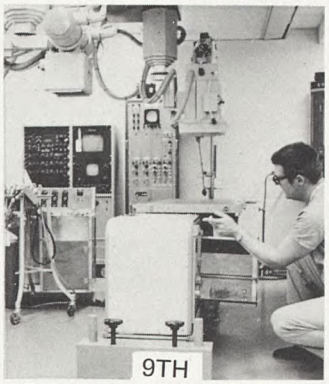
MALLINCKRODT INSTITUTE OF RADIOLOGY

11TH
MAINTENANCE,
MECHANICAL SHOPS



10TH
RESEARCH – CANCER BIOLOGY,
PHOTO LAB

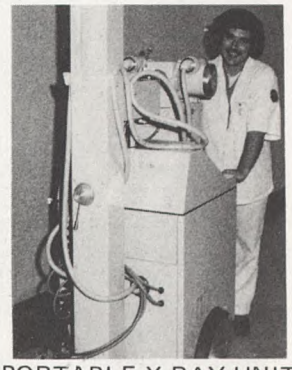
12TH SHELL SPACE



9TH
RESEARCH – DIAGNOSTIC

EMERGENCY ROOM

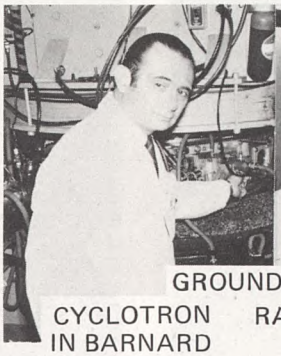
1ST
SCARPELLINO AUDITORIUM



PORTABLE X-RAY UNIT

1ST
SCHEDULING,
ACCOUNTING

SUB BASEMENT
THERAPY WORKSHOP



CYCLOTRON
IN BARNARD

GROUND FLOOR
RADIATION ONCOLOGY
THERAPY

QUEENY TOWER

OTHER FACILITIES: BARNES EAST PAVILLION AND PART OF 6TH BARNARD.

MIR
CALENDAR OF EVENTS

December 16, 1972
4th DISTRICT M.S.R.T. CHRISTMAS PARTY
Claymont Bath and Tennis Club, 7:30 P.M.

December 21, 1972
MIR CHRISTMAS PARTY
Eighth Floor, 4-7 P.M.

January 8, 1973
CITY WIDE RADIOLOGY CONFERENCE
Dr. James H. Christie, University of Iowa
(Scarpellino Auditorium, Mallinckrodt Institute), 5:30 P.M.

January 18, 1973
4th DISTRICT M.S.R.T. MEETING
Incarnate Word Hospital
3545 Lafayette, St. Louis, Mo.

January 26-27, 1973
POSTGRADUATE COURSE:
"Recent Advances in Cardiac Radiology"
Sponsored by MIR and the American College of Chest Physicians, Chase Park Plaza Hotel

February 2-4, 1973
MIDWINTER RADIOLOGICAL CONFERENCE
Los Angeles, California

February 9-11, 1973
ACR SEMINAR ON SKELETAL RADIOLOGY
Las Vegas, Nevada

February 12, 1973
CITY WIDE RADIOLOGY CONFERENCE
Dr. Nikolaus Schad, Professor of Radiology, Mallinckrodt Institute
(Scarpellino Auditorium, Mallinckrodt Institute), 5:30 P.M.

March 12, 1973
CITY WIDE RADIOLOGY CONFERENCE
(Scarpellino Auditorium, Mallinckrodt Institute), 5:30 P.M.

March 29-31, 1973
"VARIAN USERS' " MEETING
(Scarpellino Auditorium, Mallinckrodt Institute)

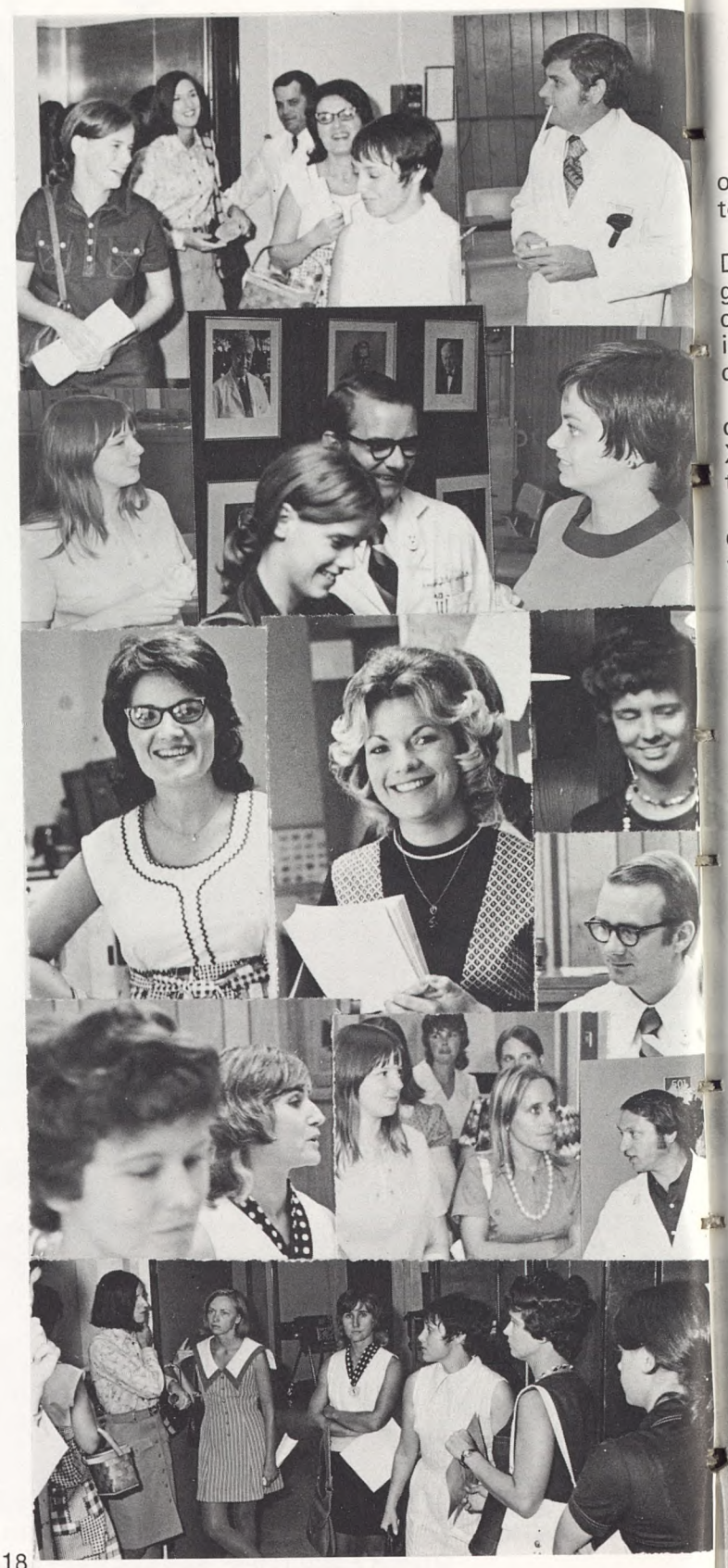
April 2-7, 1973
AMERICAN COLLEGE OF RADIOLOGY
San Francisco, California

April 9, 1973
CITY WIDE RADIOLOGY CONFERENCE
(Scarpellino Auditorium, Mallinckrodt Institute), 5:30 P.M.

April 22-26, 1973
AMERICAN RADIUM SOCIETY
Colorado Springs, Colorado

May 14, 1973
CITY WIDE RADIOLOGY CONFERENCE
(Scarpellino Auditorium, Mallinckrodt Institute), 5:30 P.M.

October 15-20, 1973
XIII INTERNATIONAL CONGRESS OF RADIOLOGY
Madrid, Spain



WIVES TOUR MIR

An informative evening was enjoyed by the wives of MIR residents, fellows, and staff members as they toured the Institute on September 20, 1972.

The guests were greeted and welcomed by Director Dr. Ronald Evens in Scarpellino Auditorium and given a brief history and description of the Mallinckrodt Institute. This was followed by an interesting informal discussion with questions and answers concerning radiologic procedures.

Mr. Armand Diaz, Technical Administrator, escorted the ladies through MIR where the diagnostic X-ray facilities were interpreted and explained by the technical supervisor on each floor.

The tour concluded with refreshments in the eighth floor conference room where some of the wives commented they now felt more a part of MIR and would like to make it an annual event.

In charge of arrangements for the evening was Mrs. Joan Hesker assisted by Mesdames Carol Bliznak, Mila Cubillo, Ellen Mayes, Brenda Melson, Jo Beth Omell and Sally Stanley.

MALLINCKRODT IS PEOPLE

Toys For Young Therapy Patients

James Harter, R.T., Radiation Oncology, showed real love and concern for his young patients when he wrote Mattel, Inc. of California and requested talking, stuffed animals to be used and enjoyed in the waiting room areas for children receiving radiation therapy treatment. Jim was so effective in his request that Mattel not only donated the beautiful toys but also the special shipping charges. Through his personal concern, Jim has already brightened the faces of these young patients — perhaps even their lives.

Nancy Hirstein, student technologist and James Harter, R.T.

HUBERT KNOWS THE SCORE

Hubert Hibbler not only flashes films in the Emergency Room X-Ray but also is a musician — a talented pianist and singer.

After losing his sight in an automobile accident when he was 18 years old, he trained at the Cosmopolitan School of Music in Chicago and learned the scores by the Braille Music System. Hubert has taught music and has performed in night clubs, entertaining in the style of his idol, Nat "King" Cole. He plays Gershwin and Cole Porter selections but says his favorites are really Beethoven and Liszt.

Hubert has been with MIR about 10 years, lives with his wife, Ava, and is an avid chess player. He says he is "a good winner and a fair loser." He enjoys traveling and reading historical novels. An unusual parallel in the Hibbler family is the fact that Hubert's brother, Al, also lost his sight when he was a boy of 12, is also very musical and was the top singer with the "Duke" Ellington orchestra for 32 years.

A new face at MIR is Miss Gail Agnew, secretary to Drs. Lily A. Palmer-Hanes and William B. Mill. Miss Agnew, a St. Louisian, attended Jacksonville University in Florida and previously worked as a medical secretary and doctor's assistant. An enthusiastic skier, her winter vacations are spent on the ski slopes of Utah and Colorado.

Helen Fortenas, Radiation Therapy Dosimetrist, was named to the Dean's List of Washington University of Continuing Education for academic excellence during the year 1971-72. Helen and other honor students were recognized at an Honors Assembly on October 4.

Jackie Rudolph, Transcription Department Supervisor, reports two new medical transcriptionists at MIR: Mrs. Sheila Doerhoff (second floor) and Miss Nancy Medley (eighth floor).

Ruth Silberstein, part-time transcriptionist, received her L.P.N. Cap in November. Interning at Firmin Desloge Hospital, Ruth will be taking her Board exams in June.

Penny's Precious Puppies

Precious Penelope Anne (Penny), Old English Sheepdog, owned by Dr. and Mrs. Ronald Evens, presented the Evens family with eight winsome puppies on September 28, 1972. The father is Greyfriar Tuck (Tuck), owned by Dr. and Mrs. Harold Kunz.

DR. GARY L. CARLS, Junior Staff Member, and Mrs. Carls (Corey) announce the arrival of twin daughters on November 8, 1972. Theresa Anne, born at 1:16 P.M. and Rebecca Anne, born at 1:20 P.M. have three older sisters, ages 9, 12, and 14.

Lucille Linebach, of the transcription department, has a new granddaughter named Katherine Ilsa, who was born September 17. Katherine's older sister, Jennifer, is 3 years old.

WEDDING BELLS

Bettye Bryant, Secretary to Dr. E. James Potchen, Director of Nuclear Medicine, was recently married to Mr. William L. Turner of Milwaukee, Wisconsin. Bettye has been with Nuclear Medicine since May 1969 and will be terminating her employment to join her husband in Milwaukee where he is attending Milwaukee Technical College.

Charles L. Derus, Jr., of Nuclear Medicine will be participating in conjunction with the Cosmopolitian Singers of St. Louis, Helen Louise Graves, Director, in this years annual performance of Handel's MESSIAH, with the St. Louis Symphony Orchestra, Walter Suskind, Conductor, on 12 December 1972.

MIR WELCOMES NEW ASSISTANT PROFESSORS OF RADIOLOGY

STUART S. SAGEL, M.D., is Co-Director of the Chest Radiology Section and in charge of medical student education in radiology. Dr. Sagel took his residency training at Yale University and the University of California in San Francisco. Prior to joining Mallinckrodt, he was a staff radiologist at Lackland Air Force Medical Center in San Antonio, Texas. Dr. Sagel has numerous publications and is a member of the American College of Radiology. Both Dr. Sagel and his wife, Beverlee, enjoy golf and photography. They have two sons, Scott, 2, and Darryl, 10 months.

ENRIQUE CUBILLO, M.D., was born in Madrid, Spain and graduated from the University of Madrid in 1962. Upon completion of a 4 year residency in Internal Medicine at Jimenez-Diaz Foundation and Clinica Puerta de Hierro in Madrid, Dr. Cubillo came to MIR for a 3 year training program in Diagnostic Radiology. After being in private practice in Des Moines, Iowa, he returned to MIR as instructor in Abdominal Radiology. Dr. Cubillo is a member of many Radiology and Medical Societies and lives with his wife, Mila, who is an undergraduate student at Washington University, at 8121 Edinburg, Clayton, Missouri. They have two children, Carmen, age 11, and Enrique, 9, and Dr. Cubillo's hobbies include most outdoor activities.

RADIATION ONCOLOGY

ASSISTANT PROFESSORS

We are happy to announce the return to St. Louis, Missouri of DR. WILLIAM B. MILL, JR. to the Division of Radiation Oncology. Dr. Mill received his M.D. degree from the University of Tennessee's College of Medicine and interned at Iowa State University Hospitals. From 1963-1970 Dr. Mill was with MIR and during 1971 he practiced at L. E. Cox Medical Center, Springfield, Missouri. Dr. Mill and his wife, Dorothy, have three children, John, 12, Susan, 9, and Robert, 8.

DR. LILY A. PALMER-HANES has rejoined our staff. She was originally with MIR from 1961 to 1967 having received her M.D. degree at Washington University in 1960 and interning at St. Luke's Hospital, St. Louis. Since 1967, Dr. Palmer-Hanes has been with the Hinsdale Sanitarium and Hospital in Illinois. She lives with her husband, Jim, and four children, Michelle, Farley, Kevin, and Patrick in Webster Groves, Missouri and says she likes astrology and is a Leo sun sign.

DR. GEORGE D. OLIVER, JR., a native of Scooba, Mississippi, joined the Radiation Oncology Division as Head of the Section of Radiation Physics. Formerly with the M.D. Anderson Hospital and Tumor Institute of the University of Texas, Houston, Dr. Oliver received his B.S. degree from Lamar State College of Technology, Beaumont, Texas; M.S. degree from North Carolina State University, Raleigh, North Carolina, and Ph.D. from the University of Oklahoma at Norman. Dr. Oliver and his wife, Gayle, have two sons, Gregory, 4, and Steven, 2.

INSTRUCTOR IN RADIOLOGY

CAROL ARCHER, M.D., a native of San Francisco, graduated from McGill Medical School in Montreal and completed her internship and residency in Neuroradiology at the University of California. Dr. Archer then traveled extensively through nine European countries during her one and a half years' residency in Stockholm. Returning to California, she maintained a private practice in Neurology for 5 years before coming to St. Louis to launch a career in Neuroradiology at Mallinckrodt. Her third year of Fellowship in Neuroradiology was spent at the Massachusetts General Hospital.

Dr. Archer and her husband, Carl Moats, R.T., who also worked at Massachusetts General, lived in Concord, Massachusetts, and enjoyed touring the New England countryside. They returned to Clayton in July, 1972 when Dr. Archer rejoined the MIR department of Neuroradiology and Carl became Assistant Technical Supervisor of Second Floor (evenings).

A very welcome addition to the family was their son, Ian Carl, born October 9, 1972.

TO: All M.I.R. ALUMNI

In order to keep our Alumni files current, please inform us of any address changes. We want to keep in touch with you!!

The Holiday Season

should emphasize our responsibility for giving the best possible radiologic care to the patients of St. Louis and the Washington University Medical Center. Holiday giving is usually once a year, whereas our giving of concern and excellent care must be year-round. Any gift is hard to deliver every day; but if we do our best, it can be the most rewarding gift of all.

May your holiday season be one of love, happiness, and joy.

Dr. Ronald G. Evens
Director of Mir

To all MIR staff:

You are cordially invited to attend the MIR gala Christmas Party

Thursday, December 21, 1972

4:00 pm until 7:00 pm
eighth floor

hors d'oeuvres
refreshments

FOCAL SPOT

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