"Boos in the Night," the 47th Gridiron Show, given by the Advertising Federation of St. Louis, won applause and laughter from the 600 guests attending the gala event, March 25, in the Chase Park Plaza's Khorassan Room. But most importantly, the talent, hard work, frivolity, and generosity, a few of the ingredients of this vintage tradition, netted $15,000 for cancer research.

This year, funds will be contributed to Barnard Free Skin and Cancer Hospital toward the purchase of additional equipment for the new hyperthermia treatment center now being developed at Barnard by Mallinckrodt Institute of Radiology. The center will be one of only ten such research centers in the United States, and the first in the midwest.

Originated by Bea Adams to "roast anything and everything that might be bothering people," the Gridiron Show has contributed over $441,000 to the research detection, and treatment of cancer. These contributions have served as seed money to bring about one million dollars in total grants and donations.

Signing the 1981 Gridiron proceeds check is Ann Kelty, AFSL President, with, left to right, Dr. Carlos Perez, Director of the Mallinckrodt Division of Radiation Oncology; Irma Strzelec, Gridiron General Chairman; Dr. Ronald G. Evens, Director of Mallinckrodt Institute of Radiology; and Sharon Wachter, AFSL Treasurer.
MIR Hyperthermia Research and Development Program

That heat can cause tumors to regress was first documented in the 19th century, when a facial sarcoma disappeared after a high fever. However, the problems of controlled and reproducible heating of cancerous tissues were seemingly insurmountable until recently. Now it appears that hyperthermia may have a place in cancer treatment, but its exact role has yet to be defined. Scientists in the MIR Division of Radiation Oncology plan to contribute to this wide-open field in a variety of ways.

The Division’s latest thrust into clinical hyperthermia will focus on combined therapy with hyperthermia and radiation. Studies have shown that heat is more apt to kill those cells that are deprived of oxygen and nutrients, have a low pH or are in S-phase of the cell cycle. These are precisely the cell subpopulations that are usually resistant to radiation. It is only logical, then, to combine these two modalities to achieve the maximum destruction of tumor cells.

Over the past two years, using relatively rudimentary equipment, Dr. Carlos Perez and other members of the staff of the Division of Radiation Oncology have used combinations of heat and irradiation in the treatment of over 90 lesions in patients with advanced cancer. There has been a very promising effect; in many patients, the tumor has disappeared completely. Although most of the patients had received previous surgery, irradiation, or chemotherapy, retreatment with radiation and heat was well tolerated and usually caused no more complications than those associated with irradiation alone.

In the early days of MIR’s hyperthermia program, the only power source readily available was a generator obtained on loan from the Department of Physical Therapy. Though the apparatus assembled with this generator could heat only to a depth of 1.5 cm, which greatly restricted the types of tumors that could be treated, a number of patients with small, superficial nodules were treated with encouraging results. Since then, a new generator and compatible microwave applicators have increased the effective heating depth to about 3 cm and patient treatment has been expanded. Now, treatable tumors include head and neck cancers, tumors of the breast and chest wall, and a variety of soft tissue and subcutaneous tumors. However, such sites as brain, lung, abdomen, and pelvis still cannot be reached.

In July 1980, Dr. Gilbert Nussbaum and Dr. Stephen Sapareto, a biologist, joined the hyperthermia team. In July 1981, Dr. Bahman Emami will add his expertise as an active participant in both the clinical and biological branches of the hyperthermia program.

Hyperthermia’s potential is enormous and Division scientists plan to contribute significantly to the realization of that potential. An extensive hyperthermia program of basic research and clinical application has been outlined and, while much of it depends on the purchase of state-of-the-art equipment, Dr. Perez is hopeful that these needs will be met shortly. With the new apparatus, additional types of cancers can be treated, tissue temperatures can be measured accurately, temperatures can be held constant through a feedback system, and temperature-time profiles will be readily available. Eventually, space on the third and sixth floors of Barnard Free Skin and Cancer Hospital will house hyperthermia research laboratories and treatment suites. The new facilities will significantly enhance the staff’s research capabilities and allow the treatment of three patients at a time. It is anticipated that, ultimately, up to 15 patients per day will be treated in the third floor hyperthermia treatment suite.

Investigations by Drs. Gilbert Nussbaum, Stephen Sapareto, Carlos Perez, James Purdy, Michel Ter-Pogossian, and Bahman Emami involving a wide range of subjects related to heat treatment of cancer are expected to have a direct impact on clinical practice, which is still in its infancy. Cancer research often seems to inch along at a snail’s pace as researchers painstakingly examine theories which look promising but hold no guarantees. Hyperthermia stands out as an agent of definite clinical benefit and, while a great deal of work must be done before it realizes its full potential for patient treatment, the results of research programs such as MIR’s will have prompt effects on our treatment of cancer.
Dr. Evens Named National Medical Radiation Chairman

Awarded Fellowships

Dr. Barry A. Siegel, Professor of Radiology and Director of the Division of Nuclear Medicine, and Dr. Robert J. Stanley, Professor of Radiology and Chief of the Section of Abdominal Radiology, have been named 1981 Fellows of the American College of Radiology.

Cited for distinguished medical achievement by the College, a professional medical society representing about 12,000 physicians specializing in radiology, Drs. Stanley and Siegel earned their rank through scientific accomplishments in the field of radiology, the performance of outstanding service as teachers, and by their acceptance as leaders in their specialty.

The certificates of Fellowship will be presented during the 58th Annual Meeting of the College, in Las Vegas, September 21-25.
Dr. Ronald G. Evens, Elizabeth Mallinckrodt Professor and Director of the Mallinckrodt Institute of Radiology, Washington University School of Medicine, has been appointed Chairman of the Medical Radiation Advisory Committee of the Bureau of Radiologic Health.

The Bureau of Radiologic Health is a branch of the Food and Drug Administration (FDA) and this appointment is by authority of the Director of the FDA and the Secretary of the Department of Health and Human Services (HHS, former HEW). The Bureau is responsible for all national programs relating to assurance of the safe use of radiation. The 13 member Medical Radiation Advisory Committee is concerned with problems related to the medical use of all forms of radiation in diagnosis and therapy. Dr. Evens is the first Chairman to be named from the State of Missouri.

As Chairman of the Medical Radiation Advisory Committee, he will advise and consult with the Secretary and Assistant Secretary for Health as well as the Commissioner of the Food and Drug Administration. The goal of this Committee is to develop a coordinated program that will, through optimum use of professional and technical personnel and X-ray equipment, obtain the maximum dose diagnostic and therapeutic benefit per unit of radiation exposure.

Widely known for his studies of the scientific, fiscal, and clinical aspects of computed tomography, Dr. Evens also has interest and expertise in all types of diagnostic imaging and in methods for improving the efficiency and effectiveness of health care delivery.

Dr. Evens is Radiologist-in-Chief at Barnes Hospital and St. Louis Children's Hospital and has served as Head of the Department of Radiology at Washington University School of Medicine since 1971. He is a member of the Executive Council for the American Roentgen Ray Society, a past president of the Society of the Chairmen of Academic Radiology Departments, a Fellow of the American College of Radiology and past president of the Missouri Radiological Society.

Dr. William H. McAlister, Professor of Radiology and Co-Chief of Pediatric Radiology, received the Society of Pediatric Radiology's distinguished honor, the Caffey Award, at the society's annual meeting March 20-22, in San Francisco. Dr. McAlister's paper entitled, "Effects of Contrast Agents in the Lungs of Animals," won the award as the best paper presented at the annual meeting. The award is given in memory of Dr. John Caffey, regarded throughout the world as the father of pediatric radiology. Renowned as an author, X-ray diagnostician, and teacher, Dr. Caffey authored a textbook, Pediatric X-ray Diagnosis, the recognized 'bible' in its field. Dr. Caffey was a founding member in 1958 of the Society of Pediatric Radiology which has a present membership of 400.

In keeping with the 10 year tradition, Dr. McAlister later presented the Caffey Award Paper at the April meeting of the Association of University Radiologists. In his study, Dr. McAlister directs attention to the frequent problem of contrast agent passing into the lungs of infants and small children during certain radiographic procedures. His preliminary research findings showed that non-ionic iodine contrast agents caused less adverse effects in animals' lungs and were safer for them to aspirate than large quantities of hypertonic barium preparations.

Dr. McAlister received his M.D. degree from Wayne State University College of Medicine in Detroit, Michigan. After completing his residency and fellowship in pediatric radiology at Cincinnati General Hospital, Dr. McAlister joined the staff of Mallinckrodt Institute.

Dr. McAlister holds important memberships and has served on advisory committees in many professional organizations. He is a Fellow of the American College of Radiology and a past president of the Missouri Radiological Society and Greater St. Louis Society of Radiologists and an examiner of the American Board of Radiology.

During his distinguished medical career at Mallinckrodt Institute of Radiology, Dr. McAlister has published over 200 papers.
The goal is far simpler to describe than to achieve — a safe, noninvasive method for seeing what is happening inside the human brain. In pursuit of that goal, Dr. Michel Ter-Pogossian, Director of the Division of Radiation Sciences, and a team of bio-medical scientists have developed PETT VI, the latest of the PETT series now in operation at Mallinckrodt Institute of Radiology.

A highly sensitive positron imaging device with a minimum scanning time of one second, the PETT provides seven image slices of the brain simultaneously to achieve quantitative regional metabolic and hemodynamic measurements in the brain such as oxygen consumption, glucose metabolism, blood flow and blood volume.

The PETT technique monitors the incorporation of compounds labeled with short-lived radioisotopes into the body’s metabolic processes. These radiopharmaceuticals, administered to a patient by inhalation or intravenous injection in the arm, are labeled with radionuclides which decay by the emission of positrons. Positrons undergo annihilation in the tissue with the emission of high energy photons which are monitored externally by scintillation detectors arrayed about the patient’s head. This information, converted into electrical signals, is then mathematically reconstructed by a computer to yield a three dimensional image of the distribution of the radiopharmaceuticals. Two cyclotrons located in the basement of Barnard Hospital supply the short-lived radioisotopes required for the PETT studies. The two cyclotrons produce oxygen — 15 which has a 2-minute half-life; nitrogen — 13 which has a 10-minute half-life; carbon — 11 which has a 20-minute half-life; and fluorine — 18 which has a 2-hour half-life. With the possible exception of fluorine, the chemical nature of these radioisotopes so resembles the normal constituents of molecules found in living matter that they can be accepted by substances used to measure such things as oxygen metabolism, regional blood flow and volume.

The short half-lives of these radioisotopes require extremely rapid radiopharmaceutical syntheses which have been developed over the years, by Dr. Michael J. Welch, Professor of Radiation Chemistry in Radiology. The team of investigators from the Division of Radiation Sciences has been aided by the Biomedical Computer Laboratory in the development of mathematical techniques for the reconstruction of PETT images and the quantitative interpretation of these data in terms of measurements of metabolism, tissue biochemistry and blood flow.

During the past ten years, one of the investigators in the brain studies involving the PETT concept is Dr. Marcus Raichle, Professor of Neurology and Radiation Sciences in Radiology.

"The thing that's crucial here," said Dr. Raichle, "is that many of the diseases which affect the brain (strokes, epilepsy, and a variety of acquired and inherited diseases) do so by affecting the metabolism. Prior to the PETT," said Dr. Raichle, "regional metabolic measurement studies developed and performed only at Mallinckrodt had to be done in conjunction with angiography, thereby limiting the number of diseases which neurologists could study. With the development of transaxial tomography, the necessity of a carotid artery injection in metabolism studies was eliminated."

The PETT system also has the potential to unravel the many mysteries of normal brain function. "For example," said Dr. Raichle, "a relatively new finding in neurology is that the regional metabolism of the brain changes dramatically in people during a variety of normal activities such as reading, talking, and walking. "We have found," said Dr. Raichle, "that in the normal brain, to simply open and close the hand causes a significant increase in metabolism and blood flow in a very localized area of the brain concerned with hand movements. Such studies should offer a clear understanding of the manner in which man's brain processes information, stores data, organizes such complex functions as language and even the manner in which the nervous system recovers from diseases such as head injury and stroke."

A stroke occurs when blood flow, transporting glucose and oxygen, to a region of the brain is obstructed.
This causes cells to die from deprivation of these nutrients. "The evaluation of patients with stroke has always presented a most difficult challenge to clinicians," says Dr. Raichle. It is difficult to distinguish areas of the brain permanently damaged from those rendered nonfunctional through lack of oxygen supply.

Findings provided by the PETT scans are useful in determining which patients might benefit from surgery to improve cerebral blood flow and metabolism and thus prevent stroke. One surgical procedure, carotid endarterectomy, involves removing a plaque causing blockage of the artery whereas another operation bypasses the obstruction to provide additional blood flow to the brain.

Epilepsy is one of the most common diseases to afflict the human nervous system. Experimental work in animals has shown that the abnormal electrical activity responsible for epilepsy is associated with striking changes in metabolism and blood flow. On the basis of this observation, in vivo studies with PETT are now being used to define more clearly the origin of epileptic seizures in the human brain and the appropriateness of medical or surgical therapy for epilepsy.

For example, surgery is only performed when a very localized area of abnormally functioning brain can be found. In vivo studies of metabolism have clearly demonstrated the area responsible for the seizure. Furthermore, studies in the near future will use appropriately labeled antiepileptic drugs, to determine whether or not these achieve high enough concentrations in the seizure focus to be therapeutic.

In vivo tracer techniques are also proving flexible tools in the evaluation of patients with tumors of the brain. "For example," says Dr. Raichle, "it is well known that chemotherapy and radiation therapy induce metabolic changes in a tumor well before there is any obvious change in its size. PETT's ability to determine the biochemical and metabolic characteristics of a tumor will assist in diagnosing and treating specific tumor types. In addition, by labeling chemotherapeutic agents with positron-emitting radionuclides we will be able to determine with certainty whether or not a sufficient amount of a chemotherapeutic drug reaches a tumor to effect a cure.

Multiple sclerosis, a highly variable and difficult to manage disease of the central nervous system, is yet another challenge to in vivo tracer techniques. Lesions attacking the insulation of the fibre tracts of the brain known as multiple sclerosis can be located and the activity characterized by measuring the tissue lipid content. This ability, in relation to clinical symptoms and treatment, should be a major advance in evaluating therapy for the disease.

Finally, in the last five years, numerous investigative PETT studies have probed such neurological diseases as schizophrenia, mania, depression, aging and senile dementia, Parkinson's disease, and Huntington's Chorea. Preliminary findings in the exploration of the pathophysiology of these important diseases indicate they are related to disorders of the neurotransmitter function of the brain. The ability to evaluate neurotransmitter function in the human brain should prove invaluable in understanding these diseases better and, ultimately, providing more appropriate treatment. This might lead one to predict that in future years, just as an electrocardiogram is part of a routine examination for chest pains, a PETT brain scan will be a standard method in the evaluation of these conditions.
Super PETT

Super PETT, state-of-the-art positron emission transaxial tomography equipment which will be in operation at Mallinckrodt Institute of Radiology by the end of the year, surpasses its predecessor, PETT VI, in quality imaging of the metabolic process of various organs. In nearly two decades of research, supported by over 10 million dollars in funds from the National Institutes of Health, Dr. Michel Ter-Pogossian and other members of an inter-disciplinary team, have refined each successive generation with improvements that have brought PETT technology to maturity. Mallinckrodt's Super PETT, whose gantry is being built in the medical center by John Hood, a member of the team since PETT's inception, will be the first of its generation in the country.

Super PETT, with refinement of detection and measurement to more accurately define the pattern of distribution of short-lived positron-emitting radioactive isotopes, produces a sharper signal than PETT VI and thus diminishes further the significance of any interference. This increase in the signal-to-noise ratio results in a better quality image. Clinical protocols for a particular utilization of the precision of Super PETT — imaging of the function of the heart — which will be valuable in by-pass surgery and the enzyme treatment of myocardial infarcts, have already been developed by Dr. Burton Sobel.

Super PETT will be particularly suited to the study of the heart, since damaged heart tissue shows no radiographic changes, even with tomography, but can be assessed with radio-pharmaceuticals. Also, in contrast to computed tomography, which computes physiological shapes by detecting X-rays that have been transmitted through the body, PETT reveals physiological functions by tracking the distribution of positron-emitting radioactive isotopes that have been administered to the patient by injection or inhalation. When a positron, upon emission from the nucleus, combines with a free electron, the annihilation radiation that occurs produces energy in the form of gamma rays. When these rays (photons), which are always emitted 180° to each other, simultaneously strike two PETT detectors, they signal that an emission has occurred at a point somewhere on the line between the detectors. In moments, the detection system views the occurrence from many angles, sorts the data into activity profiles for each angle, corrects the detection efficiency, and absorption of the gamma rays in the body, reconstructs an image of the emission distribution pattern, then quickly displays the results on a television screen. Super PETT, with 384 detectors (an increase of 96 over PETT VI), not only identifies the line on which annihilation radiation occurs, it also identifies the point on that line and continuously computes the comparative difference in distance between the point on one line and the point on the next.

National Contrast Media Study

Dr. Bruce L. McClennan, Professor of Radiology, is presently supervising a "National Study of Contrast Media Reactions" being conducted at Barnes Hospital in conjunction with several large hospitals and universities throughout the country. This very important study, with the goal of improving the safety of patients, is designed to give definite evidence regarding the efficacy of corticosteroids in preventing adverse reactions in patients who are injected with contrast media. Involving over 200,000 patients nationwide, the randomized double-blind study is to be performed over the next year.

In-patients scheduled to receive contrast material for head CT, body CT, or intravenous urography are candidates for the study. Ms. Judy West, M.I.R. local coordinator, contacts the patients, explains the study, solicits their consent and enrolls those patients who are eligible. Orders are then sent to the patients' charts for the medication (either drug tablets or placebos) and the responsible physicians approve the orders before they are given.

According to Dr. McClennan, compliance has been high and the study is running smoothly.
Computers and Digital Imaging

Drs. R. Gilbert Jost and Michael W. Vannier, speaking to the May 1981, City-Wide Radiology Conference in Mallinckrodt’s Scarpettino Auditorium, on “Computers and Digital Imaging in Radiology,” discussed two areas of computer application to radiology in which Mallinckrodt is emerging as a leader: patient records and digital image control. Already in the area of patient records, the MIR computer system with over 90 computer terminals represents the largest computer system within a radiology department in the world, and, in the rapidly developing field of digital image control, the Institute is becoming an important center.

According to Dr. Jost, in the past few years, MIR has developed a comprehensive system valuable not only for storing information on individual patients, useful in identifying, scheduling, monitoring, and billing, but also valuable for gathering statistical data useful in evaluating every aspect of the department, from patient care and teaching programs, to the inventory of supplies. Mallinckrodt’s system, which is expanding further with links into other systems in the Medical Center, was designed in a modular way using small computers. Dr. Jost explained, “It has been our aim to develop a system for Mallinckrodt which is of the very finest quality for this institute, but we designed it in a way so that modules can ultimately be adapted and changed to apply to smaller departments different from our own.”

Dr. Jost attributed Mallinckrodt’s vigorous growth in computer use to the expertise of the staff of the Diagnostic Computer Section, exemplified by the leadership of Rex Hill, and in the imaging sciences by Dr. Michael Vannier, who entered his radiology residency in 1978 with an engineering degree and experience as both an engineering consultant and a research engineer in nuclear medicine.

In his discussion of digital image control, Dr. Vannier spoke of the importance of micro-electronic developments in digital video, optical digital recording, and image processing. Less than a decade ago, the announcement of computed tomography popularized the concept of medical images that are displayed, manipulated, and stored in a computer. Since then, digital radiography at MIR has encompassed not only the most advanced CT, but also digital ultrasound and nuclear medicine equipment, and now digital fluoroscopy. Computers have the capability of generating high quality images, which may then be processed to reveal hidden details and there is the potential for transmitting these digital images at high speed throughout the department. Ultimately images could be distributed for study and interpretation in other locations around the city or by satellite, around the country and the world. The implications for research and clinical practice are profound.

Digital Fluoroscopy at MIR

For the past year and a half, radiologists at Mallinckrodt Institute have been involved in the design and development of digital fluoroscopy, a new medical imaging technology linking a computer and associated electronics to conventional fluoroscopic equipment. Digital radiographic equipment already in use at MIR, which includes computed tomography and ultrasound, has resulted in radiological images with improved quality — particularly detail visibility contrast.

A Coordinating Committee headed by Dr. Bruce L. McClennan and composed of Drs. Biello, Gado, Gutierrez, Jost, Shackelford, Ter-Pogossian, Totty, Vannier, and Mr. Diaz, will integrate into clinical activities relating to digital fluoroscopy. Developed as a joint effort between the Mallinckrodt Institute of Radiology and Siemens Corporation, this non-conventional system will allow intravenous angiography to be done utilizing digital image processing techniques and various forms of online subtraction. Installation of the system in the two newly-designed special procedures rooms on the third floor is expected within the next few months.
RSNA, 1980

REFRESHER COURSES

“Computed Tomography of the Pancreas and Retroperitoneum,”
Robert J. Stanley, M.D.; Stuart S. Sagel, M.D.
“Economic Aspects (Utilization, Cost, Revenue, and Efficacy) of Head and Body Computed Tomography,” Ronald G. Evens, M.D.
“Optimal Urography,” Bruce L. McClennan, M.D.
“Evaluation of Renal Structure and Function by Radionuclide Imaging,” Barry A. Siegel, M.D.; Daniel R. Biello, M.D.

EXHIBITS

“You, Too, Can Biopsy Bone,”
Judy M. Destouet, M.D.; Louis A. Gilula, M.D.; William A. Murphy, M.D.
CATEGORICAL COURSE IN PEDIATRIC RADIOLOGY
“The Urethra of Infants and Children” William H. McAlister, M.D.

CATEGORICAL COURSE IN GENITOURINARY MALIGNANCY — THE TREATMENT OF RENAL CANCER
“Diagnostic Radiology: CT Scanning and Lymphangiography” Robert J. Stanley, M.D.

PAPERS
“Correlation of CT Findings and Angiographic Findings in Cerebrovascular Occlusive Disease” Mohktar Gado, M.D.; Balasundaram Chandra-Sekar, M.D.; Fred Hodges, M.D.
“Dosimetric Properties of a New Electron Applicator System” James A. Purdy, Ph.D.; Walter J. Kopecky, Ph.D.; Fred G. Abrath, Ph.D.
“Correlation of Polytomography and CT Scanning in Diseases of the Paranasal Sinuses and Nasopharynx” Robin Yu, M.D.; Mohktar Gado, M.D.; Fred Hodges, III, M.D.
“Evaluation of Renal Masses Considered Indeterminate on Computed Tomography” Dennis M. Balfe, M.D.; Philip J. Weyman, M.D.; Bruce L. McClennan, M.D.; Robert J. Stanley, M.D.; Stuart S. Sagel, M.D.
“Transluminal Balloon Angioplasty: Radiologic-Pathologic Correlation” William G. Totty, M.D.; Jeffrey E. Saffitz, M.D.; Bruce L. McClennan, M.D.; Louis A. Gilula, M.D.
“The Large Ventricles and the Large Subarachnoid Space in Children” Ashwani Kapila, M.D.; Jill Trice, M.D.; Mohktar Gado, M.D.; Barry Siegel, M.D.; William Spies, M.D.
In Big "D"
Dallas Convention Center

Dr. E. Bruce McIff, Chairman of the Department of Radiology, Utah Valley Hospital, Provo, Utah, scans the recently published atlas, "Radionuclide Imaging Artifacts" co-authored by Donald R. Bernier, C.N.M.T. Illustrating unusual problems associated with radionuclide imaging, the book is intended to serve as both an educational document and a practical reference tool for technical problems.

Dr. Juan Taveras and Rosemarie Smith pause for a visit between scientific sessions.
Gold Medal Award Winners

Juan M. Taveras, M.D. — "Illustrious neuro-radiologist, author, and investigator — His name is synonymous with superb teaching."

Godfrey Hounsfield, Nobel Prize winning inventor of CT scanner, traveled from England to receive the Gold Medal Award.
Management Seminar

Dr. Ronald Evens was a member of the faculty comprised of radiology department chiefs from across the country for an ACR Radiology Practice Management Seminar January 14-15 in Key Biscayne, Florida. Over 100 radiologists and business managers attended the seminar which covered the management aspects of diagnostic and therapeutic practice, whether in a hospital or private office setting.

Covering such topics as Billings Systems, Medicaid and Medicare Reimbursement, and Hiring Personnel, the faculty presentations effectively met the particular needs of those attending, and a second ACR management forum will be conducted next January.

Planning Symposium

Dr. Ronald Evens was a featured speaker at an ACR seminar on "Diagnostic Radiology — How to Plan for the '80’s" February 12-14, at Innisbrook, Tarpon Springs, Florida. Designed to meet the specific needs of the practicing radiologist, senior resident, and physicist, the program projected into the year 2000 as it covered all facets of planning both a department and an individual diagnostic radiology installation. The faculty included radiologists, physicists, a lawyer, and an architect.

Dr. Evens addressed the topics of the Regulatory Process involving Certificate of Need and the Health Systems Agency; Dedicated vs. General Purpose Equipment; Purchase Arrangements; and Quality Assurance features of computed tomography scanners. Over 400 attended the planning symposium.

Visiting Professor

December 10-11, 1980, Dr. Bruce McClennan served as a Visiting Professor in the Department of Radiology, Duke University, and was Guest Speaker for the Duke University of North Carolina Grand Rounds.

Foreign Lectures

Dr. Robert Koehler participated in an international symposium on “Contrast Material in the Computed Tomography” in Berlin in January. The meeting was held simultaneously in German and English and was attended by radiologists and researchers from Europe, Asia, and North America. Some innovative approaches to contrast enhancement of a variety of organs were discussed. The Koehlers found time to tour both East and West Berlin and were struck by the contrast between the two sectors.

Visiting Lecturers

HAROLD E. JOHNS, Ph.D.

Dr. Harold Johns, recipient of the 1980 ASTR Gold Medal, visited Mallinckrodt Institute on October 27-28, 1980, and presented two lectures entitled, “Physics in Radiotherapy” and “Unsolved Problems in the Physics of Radiology.” Dr. Johns recently retired from the position of Head of the Physics Division of the Ontario Cancer Institute, Toronto, Canada, and Professor of Physics and Biophysics at the University of Toronto. Soon to be available is the fourth edition of his book, The Physics of Radiotherapy, which is in use throughout the world.

JOHN S. LAUGHLIN, Ph.D.

Dr. John Laughlin, Head of the Department of Medical Physics at Memorial Sloan-Kettering Cancer Center, visited the Institute on November 10-11, 1980. Dr. Laughlin, whose research has been directed toward electron beam and high energy X-ray dosimetry, lectured on "Calorimetric Dosimetry" and "Computerized Treatment Planning." In recent years he has been actively involved in the integration of computed tomography in radiation therapy treatment planning.

Elected

Dr. Robert Koehler, Associate Professor of Radiology, in the Section of Abdominal Radiology, has been elected to serve a three year term as a council member of the Barnes Hospital Society. This organization of approximately 800 members, who also hold part-time faculty positions at Washington University School of Medicine, is dedicated to the development of Barnes both as a source of community service and as a center of medical progress. Dr. Koehler came to Mallinckrodt Institute from the University of California, San Francisco in 1976, and was appointed an associate professor in 1979.

Calendar of Events

July 12-16, 1981
American Society of Radiologic Technologists
Salt Lake City, Utah

September 21-25, 1981
American College of Radiology
Las Vegas, Nevada

October 1, 2 & 3, 1981
50th Anniversary Celebration
Mallinckrodt Institute of Radiology

October 13-17, 1981
American Society of Therapeutic Radiologists
Kansas City, Missouri

November 15-20, 1981
Radiological Society of North America
Chicago, Illinois
50th Anniversary Celebration

Mallinckrodt Institute of Radiology

October 1, 2, 3, 1981

TO: Alumni and Friends of the Mallinckrodt Institute of Radiology

I cordially invite you to help us celebrate the Fiftieth Anniversary of the Mallinckrodt Institute. Our weekend of educational and social activities will be a time to renew old acquaintances and hear about the exciting future in Radiology and the Mallinckrodt Institute.

Our agenda promises a most interesting and enjoyable three days and I hope very much that you will attend.

Sincerely,

Ron Evens

Ronald G. Evens, M.D.
Director
Social Program

Thursday, October 1

TOUR OF INSTITUTE — COCKTAIL BUFFET

6:00 to 7:30 P.M. — Begin tour from first floor, Mallinckrodt Institute

Areas to be seen will include:

* Radiation Oncology
* Computed Tomography
* Ultrasound
* Neuroradiology
* Computer Facilities
* Cardiac Radiology
* Nuclear Medicine
* Diagnostic Facilities in West Pavilion
* PETT — Radiation Sciences

7:00 to 9:00 P.M. — Cocktail Buffet on tenth floor, West Pavilion

Friday, October 2

CITY TOUR FOR SPOUSES — with Hanna Evens

10:00 A.M. to 3:00 P.M. — Bus will depart from and return to Chase-Park Plaza Hotel

* Begin with a driving tour of Riverfront area to see the Old Courthouse, Old Cathedral, the world-famous Gateway Arch and riverboats . . .
* Ride to the top of the Gateway Arch, then visit the unique Museum of Westward Expansion below . . .
* Lunch at the DeMenil Carriage House restaurant followed by a tour of the Chatillon DeMenil House, ante bellum mansion . . .
* Stop at the New Cathedral where the largest collection of mosaics in the Western World covers nearly the entire interior . . .

FIVE-MILE RUN

2:00 P.M. — Meet on the first floor of Mallinckrodt Institute for a five-mile run in Forest Park. T-Shirts will be given to those who have preregistered for the run.

MIR 50th ANNIVERSARY BANQUET & SCOTT LECTURE

7:00 P.M. Cocktails/8:00 P.M. Dinner — Starlight Roof, Chase-Park Plaza Hotel

Tenth Annual Wendell G. Scott Lecture
“50 Years as Prologue” — Dr. William H. Danforth
Chancellor, Washington University
Scientific Program

Thursday, October 1, 1:00-5:00 P.M.

Welcome: Ronald G. Evens, M.D.
Moderator: William H. McAlister, M.D.

Diagnostic Radiology Session
Acute Pulmonary Edema .................................................. John D. Armstrong, II, M.D.
Intravenous Angiography .................................................. David O. Davis, M.D.
Health Care — Past, Present and Future .............................. Gladdden Elliott, M.D.
Current Approach to Radiological Diagnosis of Diseases of the Spine ................. Mokhtar Gado, M.D.
Uroradiological Imaging — Update ’81 .................................. Bruce L. McClennan, M.D.
Use and Utility of Diagnostic Imaging .................................. E. James Potchen, M.D.
CT in Staging Tumors of the Larynx ..................................... Stuart S. Sagel, M.D.

Moderator: Carlos A. Perez, M.D.

Radiation Oncology Session
Techniques for the Management of Carcinoma of the Breast ......................... John M. Bedwinek, M.D.
Quality Factors in Increasing Tumor Control in Carcinoma of the Nasopharynx ........................................ James E. Marks, M.D.
Carcinoma of the Cervix, the MIR Experience ................................ Carlos A. Perez, M.D.
Advances in Treatment Aids and Treatment Planning in Radiotherapy .............. James A. Purdy, Ph.D.
Endocavitary Therapy or Current Issues in the Treatment of Carcinoma of the Rectosigmoid ......................................... Bruce J. Walz, M.D.
Sensitizers and Protectors in Radiotherapy .................................. Todd H. Wasserman, M.D.

Friday, October 2, 8:30 A.M.-12:30 P.M.

Moderator: Robert J. Stanley, M.D.

An Analogy Between the Development of an Academic Cardiac Radiologist and a Winning Football Coach ........................................... Larry P. Elliott, M.D.
CT in Staging of Malignant Disease with Emphasis on Lymphoma .................. P. Ruben Kocher, M.D.
Immaturity and Hepatobiliary Imaging Agents ..................................... Michael D. Loberg, Ph.D.
The Role of CT in Diagnosing and Explaining Cerebral Radionecrosis .............. James E. Marks, M.D.
Radiation Changes in Children Secondary to Radiation Therapy .................. William H. McAlister, M.D.
Computed Tomography in Radiation Therapy Treatment Planning .................. Carlos A. Perez, M.D.
Effective Interpretation of the Radionuclide Bone Scan —
A Skeletal Radiologist’s View ............................................. Tom W. Staple, M.D.

Saturday, October 3, 8:30 A.M.-1:00 P.M.

Moderator: Michel M. Ter-Pogossian, Ph.D.

Radiobiological Research in Diagnosis and Therapy ................................ M.M. Elkind, Ph.D.
Nuclear Magnetic Resonance — UCSF Experience ................................... Alexander R. Margulis, M.D.
Cost and Benefits of Cancer Care ........................................... William E. Powers, M.D.
Normal Variations in the Gastrointestinal Tract or the Borderlines of Pathology ......................... William B. Seaman, M.D.
Can Brain Tumor Histology be Predicted from CT Scans? ......................... Juan M. Taveras, M.D.
The Emerging Radiological Imaging Modalities ..................................... Michel M. Ter-Pogossian, Ph.D.
The Challenges Facing the Mallinckrodt Institute and the Specialty of Radiology — Can History Predict the Future? ......................... Ronald G. Evens, M.D.
Faculty

John D. Armstrong, II, M.D.
Associate Professor of Radiology
University of Utah Medical Center

John M. Bedwinek, M.D.
Assistant Professor of Radiology
Mallinckrodt Institute of Radiology
Washington University School of Medicine

David O. Davis, M.D.
Professor and Chairman
Department of Radiology
George Washington University Medical Center

Armand Diaz, R.N., R.T., F.A.S.R.T.
Technical Administrator
Mallinckrodt Institute of Radiology
Washington University School of Medicine

M.M. Elkind, Ph.D.
Senior Biophysicist
Argonne National Laboratory
Professor of Radiology
The University of Chicago

Gladden Elliott, M.D.
Speaker of the House of Delegates
California Medical Association
Clinical Professor of Radiology
University of California, San Diego

Larry P. Elliott, M.D.
Professor of Radiology
Director, Division of Cardiac Radiology
University of Alabama School of Medicine

Ronald G. Evens, M.D.
Elizabeth Mallinckrodt Professor and Head
Department of Radiology
Washington University School of Medicine and
Director, Mallinckrodt Institute of Radiology

Mokhtar Gado, M.D.
Professor of Radiology
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P. Ruben Koehler, M.D.
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Michael D. Loberg, Ph.D.
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E. James Potchen, M.D.
Chairman, Department of Radiology
Michigan State University

William E. Powers, M.D.
Chairman, Department of Radiation Oncology
Wayne State University School of Medicine

James A. Purdy, Ph.D.
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Tom W. Staple, M.D.
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Todd H. Wasserman, M.D.
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**UPDATE**

**Receives Appointment**

**Dr. Dixie Aronberg**, Assistant Professor of Radiology, has been assigned responsibility for medical student training in the Diagnostic Division of Mallinckrodt Institute of Radiology. She assumed this administrative duty from Dr. Gary Shackelford who for the past 5 years has directed the undergraduate teaching program designed to present diagnostic radiology to students as part of the clinical clerkship experience. Dr. Aronberg’s major activities relate to the sophomore medical student course (twenty hours of lecture devoted to an introduction to radiology — diagnostic radiology, ultrasound, nuclear medicine, and radiation oncology) — as well as direct supervision of the senior year elective. In this six-week program, half of the student’s time is spent attending lectures and conferences emphasizing the principles of diagnostic radiology and the remainder is elective time on two of the subspeciality rotations within the department.

Dr. Aronberg was appointed to the Mallinckrodt Institute staff in 1977 after completing her residency at Jewish Hospital, and since that time has also served as a consulting radiologist for Barnes, Children’s, and Veteran’s Administration Hospitals.

**Lectures**

**Dr. Carlos Perez** was a member of the faculty for a workshop in Radiation Therapy Technology March 14, sponsored by the 7th District of M.S.R.T at the Kansas University Medical Center in Kansas City. Dr. Perez spoke on “Physical Aspects of Radiation Therapy” and “Characteristics and Selections of Beams in Radiation.”

**Dr. Carlos Perez** spoke on “Adjuvant Radiotherapy in the Primary Treatment of Breast Cancer” and “Combination of Irradiation and Surgery in the Treatment of Carcinoma of the Larynx and Pharynx” as a member of a post graduate course faculty, University of California, San Francisco, February 10-20.

**Papers**

**Dr. Carlos Perez** presented “Definitive Radiotherapy for Carcinoma of the Vagina” at the 63rd Annual Meeting of the American Radium Society in Phoenix, March 4-8. The paper analyzes 165 patients with carcinoma of the vagina treated at Mallinckrodt Institute of Radiology over the past 16 years and followed for a minimum of three years and 150 for at least five years.

During the January, 1981 meeting of the Society of Uroradiology in San Diego, **Dr. Bruce McClennan** presented a paper entitled “CT of Calcified Renal Masses”; a refresher course on “CT vs. Ultrasound in Imaging the Azotemic Patient”; and two workshops on “Interventional Techniques in Uroradiology.”

**Conferences**

**Drs. Marcus Raichle, Bruce McClennan and William Totty** were among the guest speakers at a one-day multi-disciplinary conference held at Barnes Hospital May 1. Directed toward health care personnel who are actively involved in patient care, the doctors shared information about current research findings and new methods of treatment. Dr. Raichle spoke on “Use of Positron Emission Tomography to Diagnose Mental Disease” and Drs. McClennan and Totty discussed the subject of “Angioplasty.”

**Dr. Bruce McClennan** discussed “Nonfunctioning Adrenal Mass” at the Second Annual Gateway Urology Update May 1-2. This continuing education conference was presented by Dr. William R. Fair and the Department of Urology at Washington University and Barnes Hospital.

**Dr. Philip Weyman** spoke at the February 17, 1980 meeting of the Greater St. Louis Society of Radiologists on “Interventional Radiology of the Biliary Tract.” He discussed a variety of new radiologic procedures used to diagnose and treat tumors, strictures and stones affecting the bile ducts and pancreas. This is a growing area in radiology today and many of the procedures now being done in the abdominal section at M.I.R. were not available a few years ago.

**Dr. Bruce McClennan** spoke on “CT of the Renal Mass” and “CT of the Pelvis” as a member of the faculty for the February, ‘81 Mountain Imaging Conference in Vail, Colorado.

**Dr. Bruce McClennan** was a member of the faculty for a conference on Recent Advances in Body Imaging in Washington, D.C., May 3-8. His topics included “CT of the Pelvis,” “CT of the Retroperitoneum,” “Antegrade Pyelography,” “Percutaneous Nephrostomy” and “CT of the Kidney.”

**Dr. Bruce McClennan** presented “Imaging Techniques in Uroradiology Today” at the Big Sky (Montana) Urology Conference March 4-8.
In November/December 1980, as part of a tour of Egypt, Dr. Bruce Walz, Assistant Professor of Radiology, visited Al-Azhar University in Cairo, as a guest of Dr. Fahim Abdel-Rahim, Professor and Chairman of Urology, and a good friend of Dr. Mokhtar Gado. Dr. Walz participated in a seminar on bladder cancer, with an emphasis on Bilharzial carcinoma. In comparing and contrasting the natural history of the Bilharzial carcinoma epidemic in Egypt, and the more common transitional cell lesions seen in the United States, he reviewed the extensive Mallinckrodt experience with preoperative radiation therapy. Dr. Walz also lectured on prostate cancer.

Additionally, Dr. Walz visited the National Cancer Institute at the University of Cairo as a guest of Dr. Hassan Awwad, and participated in treatment planning and patient evaluation sessions.

Following the scientific session, Dr. and Mrs. Walz and family toured Cairo, the great pyramids, Luxor, Aswan, and Abu Simbel. They found the Egyptian people to be of a wonderful and pleasant temperament and highly recommend the trip to Egypt.

In November 1980, Ralph Edward Coleman, M.D. (74), Professor of Radiology and Director of Nuclear Medicine, Department of Radiology, Duke University Medical Center, addressed the City-Wide Radiology Conference, on November 10, 1980 in Mallinckrodt's Scarpellino Auditorium. Dr. Coleman, who is widely published, primarily in the field of nuclear medicine, spoke on the topic, "Evaluation of Patients with Suspected Abscesses."

In 1974, after completing a Fellowship in Nuclear Medicine at MIR, Dr. Coleman was appointed Assistant Professor of Radiology at Washington University School of Medicine and Acting Director of Mallinckrodt's Division of Nuclear Medicine. In 1976, he accepted appointments at the University of Utah Medical Center as Director of the Division of Nuclear Medicine in the Department of Radiology, Director of the Radioimmunoassay Laboratory in the Department of Pathology, and Director of the Intermountain Radiopharmacy Program; in 1978 he was named Associate Professor of Radiology and Associate Professor of Pathology.
Visitors From China

Recent visitors from Peking China to Mallinckrodt Institute were Dr. H. Mueller, Professor of Medicine and Vice-President of Peking Medical College, and his wife, who is a certified acupuncturist. The Muellers were guests in St. Louis of Mallinckrodt, Inc. and appropriately paused before the Mallinckrodt Cholecystography Exhibit for a photo with their son from Connecticut and Mike Albertina, R.T., right, who escorted the group on a tour of the Institute.

Visitor From
The Netherlands

Paul F.G.M. van Waes, M.D., Ph.D., from Utrecht in the Netherlands, a guest lecturer at Mallinckrodt on November 14, 1980, spoke on “Direct Coronal C.T. Body Scanning.”

Paul F.G.M. van Waes, M.D., Ph.D., left, with Dr. Robert J. Stanley
Ernst Lecture

Dr. Luther W. Brady, Jr., Professor and Chairman of Radiation Therapy and Nuclear Medicine at Hahnemann Medical College and Hospital in Philadelphia was the featured speaker for the twelfth annual Edwin C. Ernst Memorial Lecture, May 6, at Mallinckrodt Institute of Radiology. His topic was “Recent Advances in the Management of Gynecological Cancer.” The lecture honoring Dr. Ernst, a renowned pioneer in the development of radiology, was sponsored by the American Cancer Society, Washington University, and Varian Associates.

Dr. Carlos Perez, Director of the Division of Radiation Oncology, left, visits with the distinguished lecturer, friend, and fellow colleague, Dr. Luther W. Brady, Jr.

TV Breast Cancer Series

Dr. John Bedwinek, Assistant Professor in the Division of Radiation Oncology, was interviewed recently by KMOX-TV medical and science editor, Al Wiman, in a special series on breast cancer. Dr. Bedwinek discussed one of his experiences at MIR in successfully treating two patients with radiation therapy following lumpectomy — surgery to remove a lump. Both women had anticipated a mastectomy as the only possible treatment.

Dr. Bedwinek explained that there are residual cancer cells in the breast in about 30 to 40% of the women who have had the lump removed and it’s these microscopic residual cancer cells that we treat with the radiation. They are treated with a dose that is sufficient to eradicate the cells but not so high as to cause late radiation changes in the breast — scarring.

In cautioning that radiation therapy is not for everyone, Dr. Bedwinek explained that this alternate treatment to mastectomy is only for small tumors — very early cancer — not for late and large tumors. “This is sort of a reward to women to do breast self-exams,” said Dr. Bedwinek. “One of the problems is that women are reluctant to examine their breasts sometimes for fear of finding a lump, because a lump not only means cancer, but it means removal of the breast. More women should be aware that it isn’t necessary to have to lose the breast. The whole idea of doing this is to leave a woman with two intact and cosmetically acceptable breasts. For some women this is an extremely important psychological factor.”
Cancer Workshop Focuses on Lung Cancer: Diagnostic Procedures, Pathology, Prevention

Lung cancer is the most common malignancy in the United States; approximately 112,000 cases are diagnosed each year. About 270 people die of lung cancer each day. On January 15, this disease was the subject of a Cancer Workshop sponsored by the Division of Radiation Oncology.

Dr. Charles L. Roper, of the Division of Cardiovascular Surgery, spoke about pre-surgical evaluation and diagnostic techniques such as fiberoptic bronchoscopy, sputum cytology, needle aspiration biopsy, thoracotomy and CT. New techniques have made a big difference in operability. In 1958, 38.6% of lung cancer patients were considered clinically inoperable; in 1980, that figure was 67.2%, because bone and nerve scans are now able to show the true extent of disease, something only thoracotomy could do previously. Dr. Roper stressed that the chance of cure lies in the physician's ability to resect the tumor.

Dr. Stuart S. Sagel, Professor of Radiology, who talked about new radiologic techniques, considers needle biopsies to be underutilized overall. They yield valuable information, are technically simple, can be performed rapidly, and carry no mortality. The most common complication, pneumothorax, occurs in 25% of patients; some of these require a chest tube for draining. The objection that tumor cells may be implanted in the needle tract is certainly not prohibitive; it happens only very rarely.

CT is valuable for, among other things, clarifying questionable radiographs, and is superior to conventional radiography and tomography in evaluating the mediastinum. Though a major value of CT lies in its ability to point out the presence or absence of mediastinal adenopathy, CT information should not be considered alone.

Dr. Michael Kyriakos, of the Department of Pathology, discussed the problems the pathologist encounters when he tries to classify lung cancer types. Certain types are all but indistinguishable from each other; when dealing with these types, pathologists agree only 25% of the time. Oat cell carcinoma, an ambiguous type of cancer with a very poor prognosis, requires chemotherapy, while other kinds do not, so it is very important that oat cell be accurately identified.

Dr. Ernst L. Wynder, President of the American Health Foundation, Naylor Dana Institute for Disease Prevention, New York, began his discussion by stating the obvious: "To prevent lung cancer, we must stop smoking." In the U.S., one-third of cancer deaths in males are caused by tobacco (cancers of lung, mouth, larynx and pancreas). Now these cancers are on the rise in women, too.

There have been improvements in cigarette tar levels in recent years. In 1947, the average unfiltered cigarette had 40 mg of tar; today it has 26. In 10 years, Dr. Wynder predicts it will have less than 10 mg. There is a significantly lower lung/larynx cancer rate for filter smokers. Thanks to filters, lower tar levels and a decrease in smokers, lung and larynx cancer rates are declining in the lower age groups.

Dr. Wynder feels a strong need for anti-smoking programs, especially in the schools. Given the political reality that cigarettes will not be banned, Dr. Wynder advocated health education, health maintenance, product modification, legislation and occupational safety measures.
Hugh M. Wilson Radiology Award

Mallinckrodt Institute of Radiology presented the 1981 Hugh M. Wilson Award in Radiology to Mark Mintun, a medical student in the graduation class of Washington University.

Exhibiting a willingness to learn technologies not usually taught in the medical school curriculum, Mr. Mintun elected to spend 6 months during his senior year in the Division of Radiation Sciences working on various aspects of positron emission tomography as applied to the study of the brain.

He came with outstanding qualifications, having graduated from the Massachusetts Institute of Technology in Chemical Engineering with a strong background in computer science and mathematical modeling and biological systems.

Taking it upon himself to become sufficiently familiar and effective in this environment, Mr. Mintun became a major contributor to the ongoing development of software for the PETT VI, a complex, state of the art, imaging device for the brain. He personally developed a new approach using the PETT system for the measurement of specific neurotransmitter receptors in the human central nervous system. This technique represents a major scientific achievement as it can be applied in patients with various central nervous system diseases.

Reflecting the concept of radiology in the best sense, Mark Mintun's contributions to the research efforts of the Division of Radiation Sciences coupled with his concern for the clinical importance of his work were significant factors in the basis of selection.

Dr. Hugh M. Wilson served as the second Director of Mallinckrodt Institute of Radiology from 1949 to 1963. In recognition of his contributions as a distinguished physician and teacher, the Institute established the Hugh M. Wilson Award in 1968 to be presented annually to encourage and recognize excellence in radiology among senior medical students.

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Pictured with Armand Diaz, R.T., R.N. FASRT, are from left, Judy Foeste, President, MSRT; Cynthia C. Easterling, R.T. FASRT; and Alleen Hulsey, 1980-81 President, 4th District, MSRT.

Diaz Lectureship

Cynthia C. Easterling, R.T., FASRT, President-elect of the ASRT, was the featured speaker for the Eighth Annual Diaz Lectureship at Mallinckrodt Institute of Radiology, November 13, 1980. Her topic was “Professionalism: A Problem With Identity.”

Elected MSRT Officers

Members of the MIR technical staff recently elected as 4th District MSRT officers are: Michael D. Ward, R.T., B.S. President; Tom Hanson, R.T., Vice-President; Cindy Gillardi Miller, R.T., Secretary; Theresia Girresch, R.T., Member-at-large.

Michael D. Ward, R.T., B.S. is serving as Vice-President of the Missouri Society of Radiologic Technologists.

To Speak at ASRT Meeting

Robert Feldhaus, R.T. will speak on “Temporomandibular Arthrography” at the 53rd annual meeting of the American Society of Radiologic Technologists, July 11-17, in Salt Lake City, Utah.

Norman L. Hente, R.T. will speak on Research in Radiologic Technology at the ASRT meeting.
The Reverend Dr. Bill Little, who prefers to be called Bill, as a minister, counselor, teacher, author, student, father, husband, and radio figure, is well-known for his gentle wisdom. He has urged listeners in all walks of life to find joy in living by communicating with one another, establishing healthy self-concepts, and learning to control stress and tension. Bill, whose counseling has been so well received by people in emotional and psychological distress, has developed an adjunct counseling program for cancer patients undergoing treatment in the Radiation Oncology Division of Mallinckrodt Institute of Radiology.

The primary aspects of Bill’s program for cancer patients are to help them learn to reduce stress and tension, to improve the quality of their lives, and to learn techniques that will assist them in fighting their own cancers.

Bill’s adjunct program is not a substitute for other treatments, but is an important element in the team work required to fight cancer. The team includes medical personnel, friends and family, counselors, the treatment itself, and the patient’s own ability to control negative conditions and attitudes. “The patient,” says Bill, “is the most vital member of the team and takes the ultimate responsibility for the degree of involvement and effort in fighting the disease.” He believes that “people who just love to live and want to sing their own song have a better than 50 percent chance of making it longer than other people.”
Cancer Information Center

The Cancer Information Center has been a source of help to thousands in the St. Louis area since it opened in July, 1977. In 1980 alone, 4,000 people took advantage of the Center which is located in Barnard Hospital and operated by the MIR Division of Radiation Oncology.

Due to the success of this unique service, Mrs. Sally Hermann, Volunteer Chairman and driving force and inspiration behind the CIC, has acted as consultant for Cancer Information Centers in hospitals located in outstate Missouri, Kentucky, and Arkansas.

At Sally’s request, in early May, the Board of Directors of Barnard Hospital provided the Center with a new video-cassette player. Mounted on a sturdy cart, the equipment can be used to play tapes in the Center or can be wheeled to any part of the medical center so that tapes can be viewed by patients in their rooms, their families, or groups of health professionals.

Among the wealth of materials the CIC offers for medical professionals are: concise videotaped summaries of current diagnostic and treatment techniques for numerous cancer types and sites, as well as copies of the Division of Radiation Oncology’s Cancer Workshops; videotaped discussions of therapeutic innovations such as hyperthermia, hypoxic sensitizers, and radioprotectors; current issues of medical journals; and hundreds of pamphlets offering information on cancer diagnosis and therapy.

The public section offers free wigs to patients who have suffered loss of hair; numerous pamphlets devoted to the hazards of cigarette smoking and tips on how to quit; a breast model designed to help women examine their breasts and identify suspicious lumps; videotapes on breast self-examination, cancer research, how radiation works, as well as a variety of other subjects; and a myriad of pamphlets offering a wide range of cancer information, such as therapeutic modalities, the importance of attitude, and rehabilitation after cancer therapy.

Bill Farrelly, CIC Volunteer

Bill Farrelly, knows whereof he speaks when he discusses with patients and their families what it means to have cancer. One of a number of volunteers who staff the Cancer Information Center, Bill had his first encounter with the disease in 1975 when he learned he had lymphocytic lymphoma. Forty treatments of radiation therapy at Mallinckrodt’s Division of Radiation Oncology followed by six months of chemotherapy gained a two year period of remission for Bill. “Since 1978, I’ve had two more bouts with the disease and treatment after each one, but, as I tell patients, I’ve been at this 5½ years and I’ve learned not to think about what happened yesterday, or might happen tomorrow, but just enjoy each day.”

His positive attitude and firsthand experience has enabled Bill to make a valuable contribution to the Cancer Information Center. In a pleasant relaxed manner, he assists patients, their families and the public by dispensing pamphlets, selecting appropriate videotapes, suggesting literature which discusses the psychological impact of the life threatening disease, or even handing out “I Quit Smoking” buttons.

Professionally involved in sales and public relations all of his life, Bill, now on medical retirement, has chosen this worthwhile volunteer activity in the CIC as a positive realistic approach to coping with life’s problems and making each day count for something special.
“Our Patients”
A Lovely Lady

Second floor X-ray, remaining open 24 hours a day, is often referred to as the “hub” of Mallinckrodt Institute of Radiology. It seemed an accurate title on this particular morning. Patients were arriving from various floors of the hospital — some by wheelchairs, some on stretchers. Technologists, in crisp white uniforms, were bustling to and from exam rooms in an effort to expedite patient flow and waiting time. Receptionists alternated between greeting patients, answering phones, and entering necessary data into the computer system which clicked, hummed, and buzzed as it efficiently processed information and tracked each patient’s stay in the radiology department. In special procedure rooms, radiologists in surgical masks and gowns, surrounded by support staff and trays of sterile equipment, were intently performing arteriograms, arthrograms, and angioplasty while other staff members began the morning of teaching, reading stacks of films, and dictating reports. From the X-ray rooms, technologists directed patients to, “Please hold your breath,” or “You may breathe now.”

Within this scenario I overheard someone call the name of a dear lady and friend: “Jennie Latzer Kaeser.” Seated in a wheelchair, wearing a lovely flannel robe with a soft wool shawl around her shoulders, her hair neatly coiffured, Mrs. Albert Kaeser was a picture of the composure and dignity of which hospital patients often feel deprived. When I walked over to say good morning, she greeted me with the same grace she had shown the last time we visited several years ago on a light-hearted social occasion. We were able to chat only briefly that morning, but on later visits to her hospital room, I was to learn of Jennie Latzer Kaeser’s close association with science and medicine.

Born on a farm near Highland, Illinois in 1878, Mrs. Kaeser obtained a Master’s Degree in Bacteriology in the early 1900’s when higher education for girls was almost unheard of. She then began work on her doctorate degree while an assistant instructor at the University of Illinois. "Unfortunately,” she says, “I was unable to complete this degree because the mice in the laboratory kept eating up my experiments! My project was to grow on corn the nitrogen-fixing bacteria found on legume root nodules in an effort to make corn as beneficial to the soil as alfalfa. I’m not sure if anyone has yet proved this experiment practical.”

In 1907, Jennie Latzer married Albert Kaeser, a young family physician and surgeon. Determined to enhance his diagnostic capabilities and provide patients with important roentgenology exams, in the early 1900’s Dr. Kaeser equipped his office with the first X-ray machines in Highland. New and complicated, this equipment proved an additional challenge for the dedicated physician who later served as the President of the Madison County Medical Association.

Jennie Kaeser attributes her solid education and science background to her father, Mr. Louis Latzer, one of the founders of the Pet Milk Company, and a firm believer in the necessity of education. Mr. Latzer enabled all of his six children to obtain college degrees and at his death in 1924, his family founded and built the library that bears his name in Highland.

For the next 44 years, Mrs. Kaeser provided strong leadership in local, county and state levels of library work. In her 90th year she translated a recently discovered history of Highland, Illinois from German into English and was awarded an honorary doctorate degree in literature from Southern Illinois University. In recognition of her many generous contributions to the Highland community throughout her life, Mrs. Kaeser was named a Paul Harris Fellow by the Highland Rotary Club in April 1981. This most prestigious award of the organization is named after the founder of Rotary.

"Some people say I made medical history by surviving a broken hip at 97 and a ruptured appendix and cataract operation at 99,” said Mrs. Kaeser, “but unfortunately, with my impaired eyesight, I can’t walk without help or read or travel as I once did.” "One thing I still enjoy though, is to beat my family at Scrabble, especially my lawyer grandson!”

In the days following my visits with Mrs. Kaeser, as I savored these glimpses of a courageous, warm and wonderful lady, now enjoying the venerable age of 102, I felt strongly a sentiment expressed by her many friends: "Jennie Kaeser can well reflect on a long and wonderful lifetime of helping people."
A Little Dose of Love

"A hospital may be animated by a spirit so impersonal as to border upon indifference or it may be so personal that every service is performed with a little dose of love."

—Adele Starbird

Helen Boyles and Marion Volmer with their menagerie.

Helen Boyles and Marion Volmer are sisters who have each contributed over 9,000 hours in volunteer service to the medical center during the past 16 years. Through their volunteer efforts, they have contributed in large measure to the quality of patient care at Mallinckrodt. Marion and Helen have also brought many smiles to the faces of the young patients in pediatric X-ray with their handmade stuffed animals. Just holding onto a soft cuddly animal can provide not only comfort and assurance to a young child but also a "little dose of love."

“A Sweet and Lovable Little Guy”

I always knew where to find Matthew on the mornings of his therapy treatments in Radiation Oncology: My clue was to look for a cluster of the hard working staff taking a moment from their busy schedule — greeting warmly and smiling down at a 4 year old patient. Yes, Matthew Eagleton is that kind of child — winsome, appealing and courageous. He spoke very clearly in a soft voice about his dog "Roger," his friends in nursery school and his toy trains, but not about the tumor of his cerebellum. Matthew had experienced a deterioration of motor activity and the tumor had blocked the ventricles of his brain causing them to swell. A shunt operation to allow drainage of the ventricles was successfully performed on Matthew and efforts were now underway to reduce the tumor with radiation therapy.

Rosemary Eagleton, Matthew’s mother, was completing her electrical engineering degree at the University of Missouri at Rolla, and even though the treatments required daily trips to and from St. Louis, she maintained a positive attitude then as she does now that the tumor will remain in remission.

During those five weeks Matthew provided a bright ray of warmth to his many friends in Radiation Oncology and our wish is that he’ll stay well and happy and come back to visit, but only to talk to us about “Roger” and school and toy trains.
Up, Up and Away

It began as a mural of hot air balloons, but like a giant patchwork quilt, the project grew to imaginative proportions as the Public Relations Department set about to redecorate the waiting room of Pediatric Radiology. Since April, over weekends, evenings, and in free moments, Kay Porter, artist, has created a fantasia of colorful storybook and comic book characters floating amidst gossamer hot air balloons and smiling down from a sky of blue. Mary Kimberlin, Mary Ann Fritschle, Virginia Trent, and Robin Tharp turned the 160 feet of wall space into an azure canvas on which the gifted artist brought to life the familiar faces of Big Bird, Dumbo, Snoopy, and many of their friends.

“Besides the sense of satisfaction I’ve gained from seeing the project unfold,” says Kay, there have been special heartwarming rewards such as glimpsing the 4 year old boy who, thinking it alive, put out his hand to pat the puzzled face of the little lamb suspended in the sky by a bouquet of balloons.”

Dr. Gary Shackelford says “Anyone who provides medical treatment to children must remember that children are not just little adults.” “Our goal,” says Virginia Trent, “was to provide a bright and happy place designed to relax and please the patients — whether they are young or young at heart. After all, you don’t have to be four feet tall to enjoy Superman, Big Bird, or Miss Piggy!”