

Indexed

FALL/WINTER, 1991

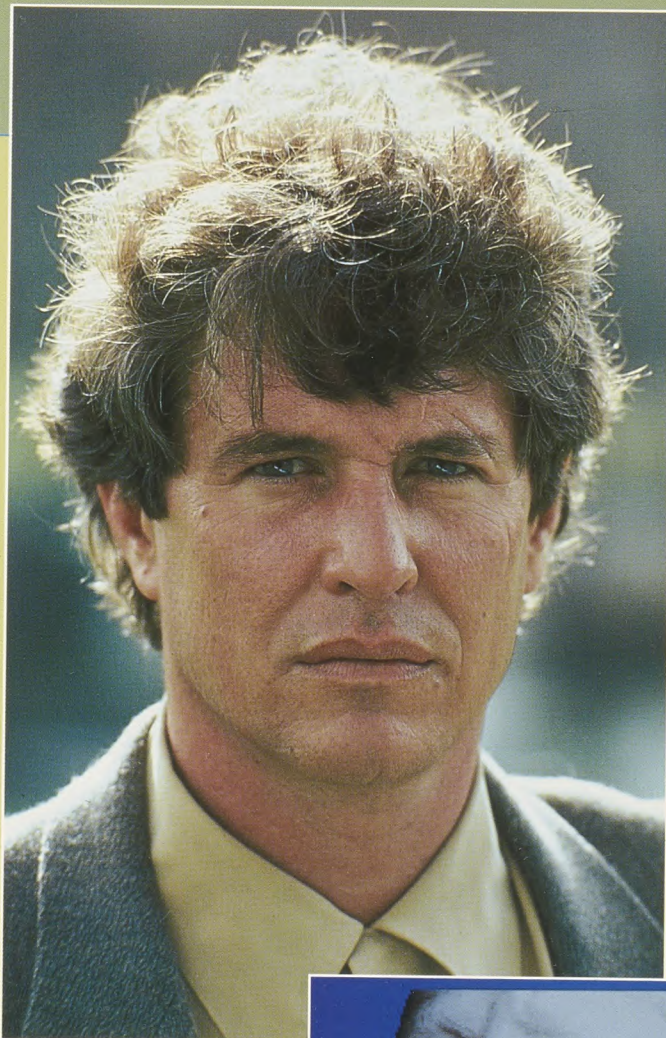
VOLUME 22, NUMBER 3

FOCAL SPOT

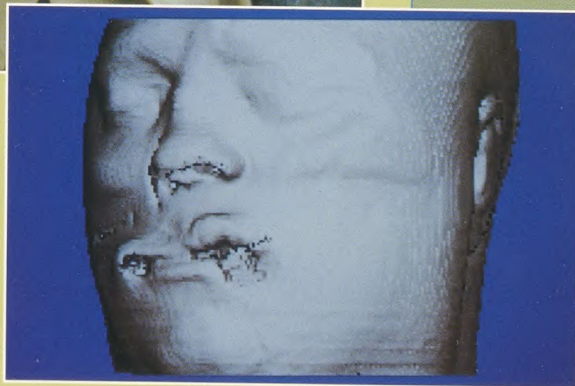
MALLINCKRODT INSTITUTE OF RADIOLOGY



**PARTNERS IN
SAVING LIVES**



In the psychological movie thriller Shattered, actor Tom Berenger portrays Dan Merrick, an automobile accident victim whose face and life must be totally reconstructed.



For the facial reconstruction scenes, MGM Studios came to Mallinckrodt Institute and Michael Vannier, M.D., director of the Division of Radiology Research and head of the three-dimensional imaging lab. This 3-D image, one of several images developed in Vannier's lab especially for Shattered, is used in the operating-room scene where surgeons work to restore Merrick's face.

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MALLINCKRODT INSTITUTE OF RADIOLOGY



6 THE ART OF HEALING

The men and women of the Radiation Oncology Center laugh and cry with their patients as they all try to beat cancer. Everyone agrees – staff and patients alike – that attitude is half the battle.



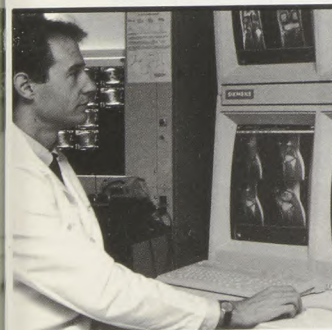
12 PARTNERS IN SAVING LIVES

Five years ago, Mallinckrodt Institute entered into a partnership with Schnuck Markets and Boatmen's Bancshares, Inc. to bring breast-cancer screening to St. Louis. The partnership has proven to be a win/win situation for everyone, especially for the women who have benefitted from the breast-cancer screening program.



18 LEARNING TO BE A DOCTOR

Liz Miller had always wanted to be a doctor and thought she knew which specialty she wanted to go into. But a summer clerkship in MIR's Radiation Oncology Center opened her eyes to the choices she has.



2 SPOT NEWS

23 FYI

31 SPOTLIGHT

32 REFLECTIONS

MIR
MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

ON THE COVER:

As the incidence of breast cancer rises to one woman in nine, the partnership of Boatmen's, Schnucks, and MIR is committed more than ever to the Mallinckrodt Institute Mobile Mammography Program. Left to right: Ronald G. Evens, M.D., director of Mallinckrodt Institute; Sam Hayes, president and CEO of Boatmen's National Bank of St. Louis; Craig Schnuck, chairman of the board and CEO of Schnuck Markets; and Scott Schnuck, president and chief operating officer of Schnuck Markets.

SPOT NEWS



**Ronald G. Evens, M.D. (left);
Mrs. Wendell G. Scott; and
George D. Lundberg, M.D.**

Lundberg Gives Keynote Address at 60th Anniversary Celebration

As the amount of medical information continues to grow, physicians must carefully judge published research before applying it in clinical practice. That was the theme of the Twentieth Annual Wendell G. Scott Lecture, delivered by George D. Lundberg, M.D., editor-in-chief of the *Journal of the American Medical Association (JAMA)*. Lundberg's presentation, entitled "Future Responsibilities of Medical Journalism," was the keynote address of Mallinckrodt Institute's 60th Anniversary Celebration.

"We must adopt the phrase, *caveat lector et editor* — let the reader and editor beware," Lundberg said. "The future of medical journalism is exciting, bright, varied and treacherous. It is up to the readers to realize that editorial messages may sometimes be in fact advertorials."

Lundberg also is an outspoken advocate for national health-care reform. Lundberg dedicated the entire May 15, 1991 issue of *JAMA*, and many pages in the May issues of all nine specialty journals as well, to health-care reform in the United States. As Lundberg looked ahead to the 21st century, he said that medicine's collective resources must be well managed.

"The enemies of physicians won't be insurance companies or attorneys or hospital administrators," he said. "The enemies of physicians are and always will be premature death, pain, disease, disability and human suffering. All of the rest that you hear is just noise."

Lundberg has promoted the concept of doctors and researchers signing statements attesting to authorship responsibility as well as disclosures of any financial relationships to subjects dealt with in articles.

"The largest concern I have for the future of biomedical publication and other information flow involves ethics," Lundberg said. "The social contract that has existed between the physician and patient for centuries, in which the physician must be trusted to

do the right thing for the patient, is severely threatened at this time. Promoters of products will stop at virtually nothing to get their modern, expensive snake oil (whether or not it is effectively) marketed successfully."

Lundberg said the growth of printed biomedical periodicals is breathtaking. He quoted a study that found a physician would have to read 6,000 articles per day to keep up with the rate of publications. A physician who reads two articles per day would fall six centuries behind, he said. With so many periodicals, physicians might not know which ones subscribe to a code of ethics. In 1989, *JAMA* began requiring that all authors sign financial disclosure forms before their studies were published in the Journal.

"We do not want to become the science police," Lundberg said. "However, we do want to set the tone for how this process should operate."

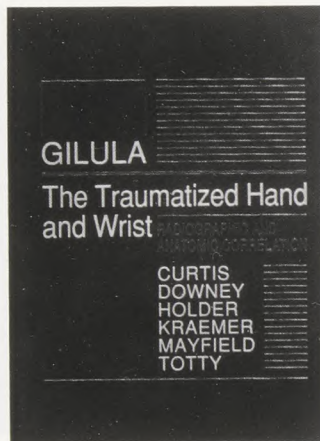
SPOT NEWS

Annual Oncology Update Held at St. Luke's Hospital

The use of hormonal therapy in the treatment of breast and prostate cancers was addressed by two nationally known physicians during the seminar "Oncology Update" held in October at St. Luke's Hospital. The seminar was the tenth in a series of annual programs established and chaired by Carlos Perez, M.D., director of Mallinckrodt Institute's Radiation Oncology Center.

Douglas E. Johnson, M.D., professor of urology at M.D. Anderson Cancer Center, University of Texas, Houston, gave a presentation entitled "Hormonal Therapy for Prostatic Carcinoma: When, Why and How?" Douglas J. Marchant, M.D., professor of obstetrics and gynecology and professor of surgery, Tufts University School of Medicine, Boston, spoke on contemporary treatment of breast cancer.

The program was designed for gynecologists, oncologists, radiologists, surgeons, urologists, and other health-care professionals who care for patients with cancers of the breast or prostate. Among the subjects covered were the pharmacokinetics of hormonal therapy for breast and prostate cancers, indications for hormonal manipulation, and the controversies and the prognosis of hormonal treatment.



Gilula Publishes Hand and Wrist Guide

Noted orthopedic radiologist Louis A. Gilula, M.D., professor of radiology and codirector of MIR's musculoskeletal section, has edited "The Traumatized Hand and Wrist: Radiographic and Anatomic Correlation," the first comprehensive reference correlating anatomic and radiologically demonstrated traumatic abnormalities of the hand and wrist. Seven expert interdisciplinary contributors, including Gilula; William G. Totty, M.D., associate professor in MIR's musculoskeletal section; and Bruce A. Kraemer, M.D., assistant professor of plastic and reconstructive surgery, Washington University School of Medicine, provided clinical perspectives along with specific anatomic correlations for bony abnormalities of the hand and wrist. Hailed as a unique clinical resource, the book offers more than 530 illustrations, encompassing state-of-the-art imaging and radiographic interpretation for virtually any problem the physician may encounter.

Purdy Appointed to NIH Study Section

James A. Purdy, Ph.D., professor of radiology and associate director of the Radiation Oncology Center, was appointed to the Radiation Study Section of the Division of Research Grants for the National Institutes of Health (NIH).

As a member of this key group, Purdy will review grant applications submitted to the NIH, make recommendations on the applications to the appropriate NIH national advisory council or board, and survey the status of research in related fields of science.

According to Jerome G. Green, M.D., director of the Division of Research Grants at NIH, "In addition to Doctor Purdy's demonstrated competence and achievement in a scientific discipline, as evidenced by the quality of his research accomplishments, we believe he also brings the qualities of mature judgment and objectivity to this important task. The contributions of this study section are of great value to medical and allied research throughout the world."

Purdy is nationally recognized for his work in three-dimensional radiation treatment planning.

CTD Seminar Provides In-Depth Study

The annual Richard A. and Betty H. Sutter Lecture was part of an October seminar on Cumulative Trauma Disorder (CTD). Sidney J. Blair, M.D., a professor of orthopedic surgery and chief of the hand surgery section at Loyola University Medical Center in Chicago, and the Sutter Visiting Professor, spoke on the medical aspects of CTD.

CTD can occur when repetitive movement or motion causes stress on bones or joints. The Sutter Lecture was the highlight of the two-day course on CTD, presented by the Division of Plastic Surgery, Mallinckrodt Institute of Radiology, and the Office of Continuing Medical Education, Washington University School of Medicine. The course provided an in-depth look at a problem that is reaching epidemic proportions and significantly affecting productivity, profit, health costs, and competitiveness of businesses. Other presentations covered the prevalence, screening, prevention, treatment, legislation, and litigation of CTD and its cost to the individual, the corporation, and to society.

Richard Sutter, M.D., a St. Louis physician, and his wife Betty established a visiting professorship in 1985 to further the understanding and practice of occupational medicine. Sutter is the founder of the Sutter Clinic, Inc., which, since 1946, has provided occupational medical service to more than 1,500 companies in the St. Louis area. He was director of the clinic until 1984, when it was purchased by Barnes Hospital.

SPOT NEWS

Stone Elected To Office

The Healthcare Financial Management Association (HFMA) has elected Mallinckrodt Institute Business Manager Donald R. Stone, C.P.A., F.H.F.M.A., to the post of Chapter Liaison Representative for a one-year term during 1991-92.

Stone, a past president of the Greater St. Louis Chapter of HFMA, will be the liaison between nine Midwest chapters and the national organization. He also will serve on the National Matrix and teach various national HFMA officer training seminars.

The HFMA is the nation's leading personal membership organization for more than 28,000 professionals concerned with financial management of health-care institutions and providers. The HFMA's 72 chapters are divided into 11 regions.

Stone also is a member of the American Institute of Certified Public Accountants and the Radiology Business Management Association.

Welch Receives Midwest Award

In recognition of his achievements, the American Chemical Society presented Michael J. Welch, Ph.D., director of Radiation Sciences, with the 1991 Midwest Award, which is given annually to a resident of the Midwest who has made meritorious contributions to the advancement of pure or applied chemistry or chemical education.

Welch is credited with being one of the first researchers to apply modern organic chemistry to the preparation of radiopharmaceuticals used in medical imaging. His most fundamental contribution has been the introduction of a wide array of modern synthetic chemical and radiochemical methods for the production of novel radiopharmaceutical imaging agents. These agents have been utilized in many ground-breaking clinical research studies on breast tumor localization and brain neuroreceptor quantitation studies. Welch's research has been published in more than 300 publications, review articles, and book chapters.

Welch is a member of the American Chemical Society, the Royal Society of Chemistry, the Radiation Research Society, and past president of the Society of Nuclear Medicine. He is a past recipient of the Paul C. Aebersold Award (1980) and two-time winner of the Berson-Yalow Award (1988 and 1990). Many of the radioisotope production, imaging, and research centers in the United States are headed by or staffed by persons who trained under Welch as students or as collaborators.



Barbara Monsees, M.D., a key member of MIR's mammography program, spoke on the importance of screening mammography at a joint news conference held by MIR and the United Food & Commercial Workers Local 655 on October 1 to kick off Breast Cancer Awareness Month. Other speakers were (left to right) Betty Hesler, a member of Local 655 whose breast cancer was detected on MIR's Mammography Mobile in 1990; Deanne Lane, anchor/reporter for KSDK-TV, channel 5, and mistress of ceremonies for the kick-off; Monsees; and Richard Weiss, features editor of the St. Louis Post-Dispatch who spoke in tribute to columnist Terry Hughes, who died in July of breast cancer.

Destouet to Serve on ACR Task Force

Judy Destouet, M.D., associate professor of radiology and head of mammography, has been appointed to the American College of Radiology Task Force on Breast Cancer. The Task Force, formed in the fall of 1986 by Dr. Thomas Meaney, chairman of the ACR Board of Chancellors, coordinates all ACR-related activities concerning breast imaging and breast cancer. Critical issues addressed by the Task Force include education of radiologists and referring

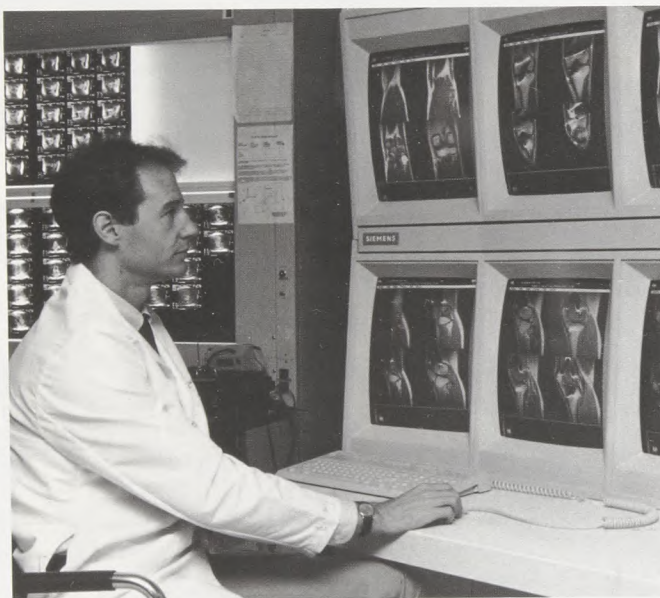
physicians regarding breast cancer and breast imaging, mammography guidelines and statements, and mammography quality assurance. The Task Force also will act as liaison with other medical organizations, such as the American Cancer Society.

SPOT NEWS

MIR Establishes Mammography Fellowship

The Mallinckrodt Institute of Radiology is offering a one- or two-day, on-site Mammography Fellowship program for radiologic technologists. The Fellowship is one of only a few in the country offering a full range of experiences in mammography, quality control, quality assurance, mammography film critique, radiation safety and monitoring issues. To insure an individualized, interactive learning experience, the Fellowship is offered year-round to a limited number of American Registered Radiologic Technologists (or its equivalent) per session.

Six Evidence of Continuing Education (ECE) credits will be awarded by the American Society of Radiologic Technologists for the one-day program; 12 for the two-day program. The one-day program fee is \$250; the two-day program, \$450. Participants have an option to schedule more than the regular two-day Fellowship for an additional \$100 per day. For more information, call Nancy Genetti, R.T. (R), technical supervisor/program coordinator, at (314) 362-7110.



Jeffrey J. Brown, M.D., assistant professor of radiology, has been named chief of the magnetic resonance imaging (MRI) section at the Institute. Brown, who joined the MIR faculty in 1988, has been instrumental in the evaluation of digitized images as an alternative to conventional X-ray films.

ACR Recognizes MIR Excellence

Mallinckrodt Institute of Radiology (MIR) continues to increase its impact and renown within the American College of Radiology (ACR), the principal policy-making organization of the specialty of radiology.

Four alumni and faculty from MIR serve in the ACR governing body, the Board of Chancellors; nine sit on the ACR Council, and eight faculty and alumni became fellows of the College at the annual meeting this past September.

MIR was well-represented on the Board of Chancellors by Drs. Robert Bogardus, an alumnus who is the newly elected ACR president; Ronald Evens, director of MIR, who will serve as the ACR secretary-treasurer; Bruce McClennan, faculty; and Robert Stanley, alumnus.

The ACR annually recognizes excellence by naming as fellows those radiologists who have made significant contributions in scientific or clinical research to its litera-

ture. Of the 129 new fellows named, two are MIR alumni (Drs. James Andrews and Edward Coleman); six are faculty (Drs. Gene Davis, clinical faculty; Judy Destouet, Diagnostic Radiology; Christopher Moran, Diagnostic Radiology; James Purdy, Radiation Oncology; Robert Scheible, clinical faculty; and Gary Shackelford, Diagnostic Radiology).

Of the ACR Council members attending the annual meeting, seven are MIR alumni (Elsie Cintron, Bruce Hauser, Michael Huckman, Jerry Kaplan, Patrick Lester, Lynn Magill, and David Perkins), and two are Radiation Oncology faculty (Venkata Devineni and Bruce Walz).

The ACR is a national organization serving some 27,000 radiologists, radiation oncologists, and radiological physicists with programs focusing on the practice of radiology and the delivery of comprehensive radiological health services.

The Art of Healing

by Joe Mueller

Life changes when you're diagnosed with cancer. The changes also affect your family and friends. For those who work every day with patients who have cancer, their lives are indelibly marked by what they see, hear, and experience. Here are some reminiscences of care givers in Mallinckrodt Institute's Radiation Oncology Center.



Sally King, R.N., supervisor of outpatient follow-up, and 16-year-old Billy Mohr, who has been coming to the Center since 1988: "Our young patients give us faith in what we're doing."

The Art of Healing

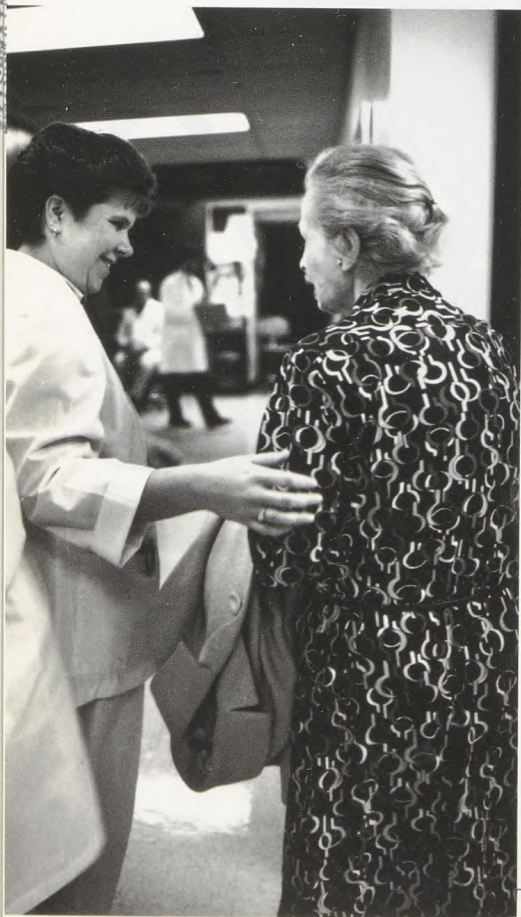
Carlos Perez, M.D., director of the Radiation Oncology Center, especially remembers one young patient he treated over 20 years ago. Each time the seven-year-old boy came for treatment for cancer of the kidneys, he always talked about the things he was going to do when he got well and returned to Australia. He was always cheerful, always brave. He would even tease the doctors and technologists and play little tricks on them.

"He went through all of this treatment without ever uttering a complaint or saying as much as ouch," says Perez. "To me, it was so special to have a little boy have that much courage and that much insight to think about the future. I will always remember him with a very warm feeling."



Mike Renna, R.T.T., and Reed Halley, who is on his way home after receiving his last treatment for lung cancer.

"This caring attitude is something you must have within yourself," Tom Moynihan, a technologist, says. "If you don't have it, I think you're in the wrong field. You have to think of patients as if they are your mother, father, sister, or brother. If you don't treat patients the same way you would treat your family or friends, then you shouldn't be doing this."



After her treatment for skin cancer, Polly O'Brien (right) visits with Mary Wojcik, R.T.T.

In 1982, Steve Fellows suffered from a large inoperable tumor in his abdomen. He was 21 years old, the same age as Sally King, a nurse who was treating him. Steve went through radiation therapy and chemotherapy. His physicians told Steve they had done all they could to help him. Surgery wasn't an option because the tumor was interfering with blood vessels. Finally, Steve's family begged the surgeons to remove the tumor, and so they did.

Shortly thereafter, King lost touch with Steve.

"Five years later, I'm here on a late Monday afternoon and who comes through the door but Steve," King says. "He's perfectly healthy. He's married and has adopted a child."

"Steve is a miracle; he truly is," she says. "Any time I get a patient who has been told the cancer is very advanced, I tell them the story about the boy who was told the same thing and how he fought it and won."



On an especially busy day in the Center, a key treatment machine went down. As technologists worked to repair the machine, patients grew tired of waiting. Debbie Scott ("Scottie"), the communications coordinator for patient services, sensed the tension in the waiting room. As if on cue, a patient approached Scottie and handed her a walking stick.

Scottie, once an aspiring professional dancer, needed no other excuse. She broke into a brief dance routine and brought smiles and laughter to the patients.

"I really do believe that I'm a performer here," says Scottie. "I have taken a lot of those skills and brought them into medical life. I laugh with the patients, joke with them, entertain them. I try to help them have a better attitude. I'm a firm believer that proper attitude is fifty percent of the treatment."



Rhonda Levan, R.T.T., B. S., assistant technical supervisor, escorts Herbert Hunter after his treatment for lung cancer: "Sometimes people just want to talk."

Rhonda Levan, assistant technical supervisor, will never forget five years ago when a woman patient called the appointment desk to delay the start of her therapy for breast cancer.

Says Levan, "She told me she had to make funeral arrangements for her son who had died of Hodgkin's disease. You look at someone like that and you wonder how they could ever go on."

"I specifically emphasize to the residents the importance of having a strong and warm rapport with the patients. Wear a smile. Touch them. Show genuine concern for their welfare. That's our first obligation as a physician. After that comes the technical," says Perez.

Mike White, a clinical aid, remembers about ten years ago when he was called to help transport 19-year-old Loretta Isaac from the intensive care unit to Radiation Oncology. She was on a ventilator and was close to death. Loretta was suffering from cancer of the nasal passages, but regained some strength and was able to undergo a few weeks of therapy.

"A couple of weeks later," White explains, "Loretta walked through that door. I mean she walked through that door. That felt so good to see her. I was totally taken back by how good she looked."

"Loretta is one person I will never forget," White says. "I will never, ever be able to get her out of my mind."



Beverly Granberry, ACSW, clinical social worker: "There are so many perspectives on healing."

In some instances, the care giving comes from the patients. Mike White's wife and son were injured in an automobile accident in January, 1991. White visited his wife daily during her month long hospital stay. Shortly after White's wife was admitted, she received get-well cards from her husband's patients as well as telephone calls.

"That really hit me," White says. "And they're still calling to see how we're doing. You really meet some nice people."

The Art of Healing

Rhonda Levan was especially moved by Stan Musial's warm and giving nature when he was treated for prostate cancer in 1990. All through his radiation therapy, Stan "The Man" never stopped smiling. Musial, an all-star for the St. Louis Cardinals and a member of the Baseball Hall of Fame, was always happy to shake someone's hand or sign an autograph.

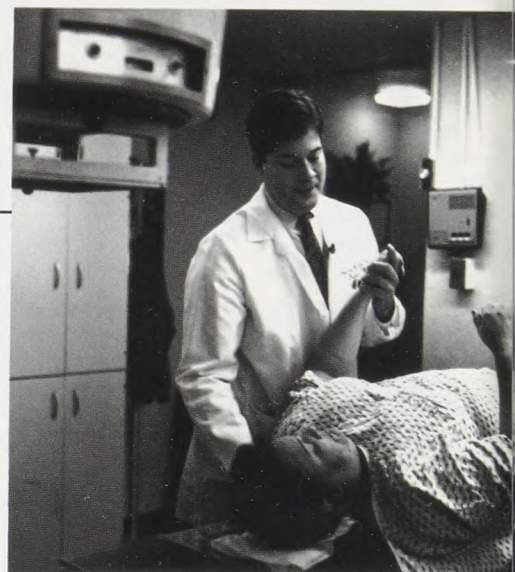
"It was actually enjoyable when Stan Musial was here in the waiting room," says Levan. "He brightened the whole waiting room with his personality."

◆
Barbara Hasse, R.N., B.S.N., M.A. Ed., the Center's top-notch supervisor of nursing and a former Army staff nurse in South Vietnam, has seen it all but says that her work now is the most rewarding form of nursing she has ever experienced.

Patients undergoing radiation therapy for tumors of the head and neck often have irritations of the mouth and throat. There's not much that can be done for the discomfort. Tom Moynihan remembers Shirley Gatlin who complained to her physician about the pain. Shirley wasn't satisfied with the physician's explanation and was still angry as she talked with Moynihan.

"I'm so damned mad," she said. Moynihan turned around, walked across the treatment room, and put his arm around Shirley. "I understand what you're going through, and I know this is a tough time," he told her.

Shirley came back the next day with a different attitude. "Thank you very much, Tom," she said. "That's all I wanted. I just wanted to cry on somebody's shoulder and have somebody understand what I am going through."



Tom Moynihan, R.T.T., positions Rena Grable, from Washington University School of Medicine Department of Surgery, for her Hodgkin's disease treatment.

"Our patients are very important to us," says Barbara Hasse, supervisor of nursing. "Just to see them doing well is heartwarming and rewarding. Our staff does what needs to be done, even if it's only holding a patient's hand or making a patient comfortable."

Hasse remembers Cory, an 18-year-old who first came to the Center last year for treatment. "I saw on Cory's chart that he lived about six blocks from me," says Hasse. "I told his parents they could call me at home if they ever needed anything."

At ten o'clock on Christmas Eve night, Hasse made good her offer. She received a frantic phone call from Cory's parents; his infusion pump was malfunctioning. Hasse stayed with the family, working on the pump, until the early morning hours of Christmas Day.

"We didn't think Cory would live to see Christmas last year. But he did. Now seeing him swimming and hearing him talk about playing golf and doing what eighteen-year-old boys are supposed to do — that's what makes our jobs worthwhile," says Hasse. "Cory really enjoys the theatre. I promised him that when he got better, I would take him to the Muny. We're going to see "CATS" in December."

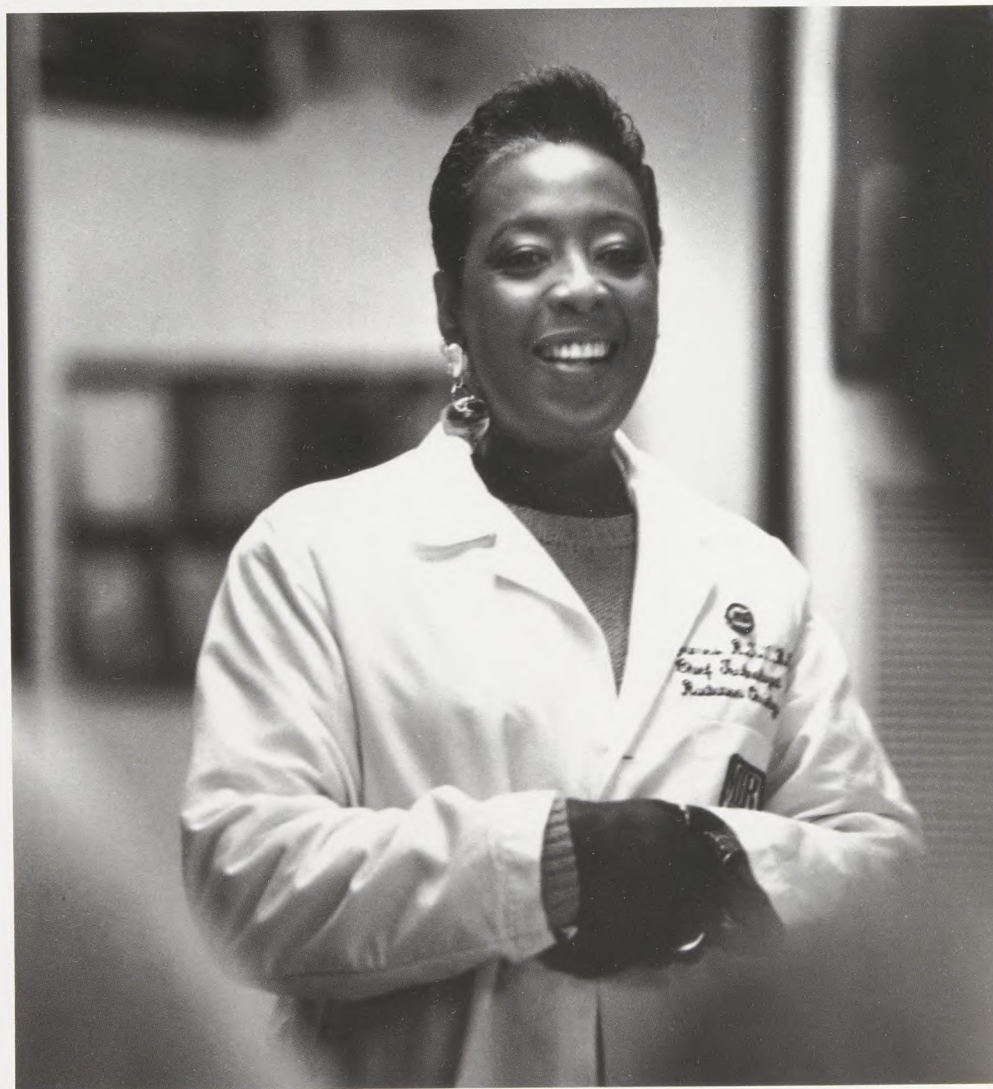


During last winter, Beverly Granberry, a social worker in Radiation Oncology, fought a cold for more than a week. While arranging transportation for a man who had prostate cancer, she asked to be excused while she sneezed.

Later that week, he stopped by to thank Granberry for helping with his transportation. "I have something for your cold," he said.

Granberry expected something to help soothe her sinuses. Instead, it satisfied her sweet tooth; the box was full of candy.

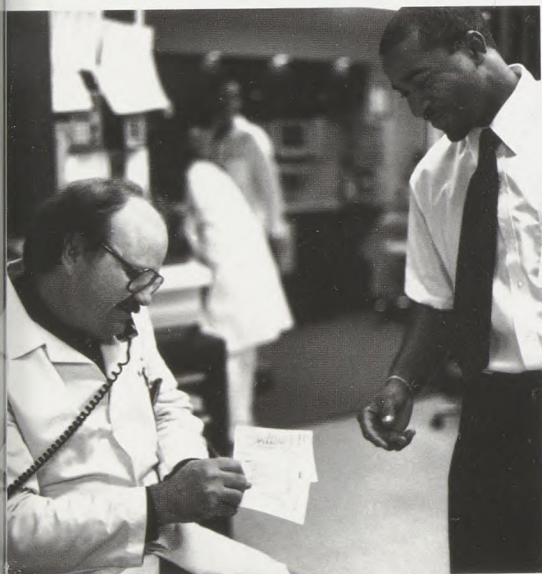
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Bettye James, R.T.T., B.S., chief technologist, has taken care of patients in the Center for 25 years: "I'm fortunate for a number of reasons. I've been allowed to meet a lot of people and, through them, to grow personally and professionally."

Our patients are such an appreciative group," says Bettye James, Radiation Oncology chief technologist. "They have so much character and strength. No matter what kind of problems you think you might have, just looking, listening, and talking with them makes you realize your problems are nothing. I think they give us far more than we can ever give them." □

◆



Mike White (left), shown with Barnes Hospital transporter Ivan Hollins, is an 18-year veteran of the Center.



Fay Patakas, an executive secretary at Schnucks, had her mammogram at the first Schnucks health fair in the summer of 1986: "I had done regular breast self-exams, and I had gone every six months to my doctor. Still, nothing showed up until the mammogram."

PARTNERS IN

Saving Lives

IN 1986, MIR TEAMED UP WITH SCHNUCK MARKETS AND BOATMEN'S BANCSHARES, INC. TO PROVIDE A LIFE-SAVING PROGRAM FOR WOMEN IN THE ST. LOUIS AREA.

The women of St. Louis are very lucky. Five years ago, a lifesaving breast-cancer screening test, mammography, was offered in workplaces and near homes to tens of thousands of women thanks to a visionary program. Spearheaded by Ronald G. Evens, M.D., director of Mallinckrodt Institute of Radiology (MIR), the program was designed to set the standard in the St. Louis region for high-quality breast-cancer screening

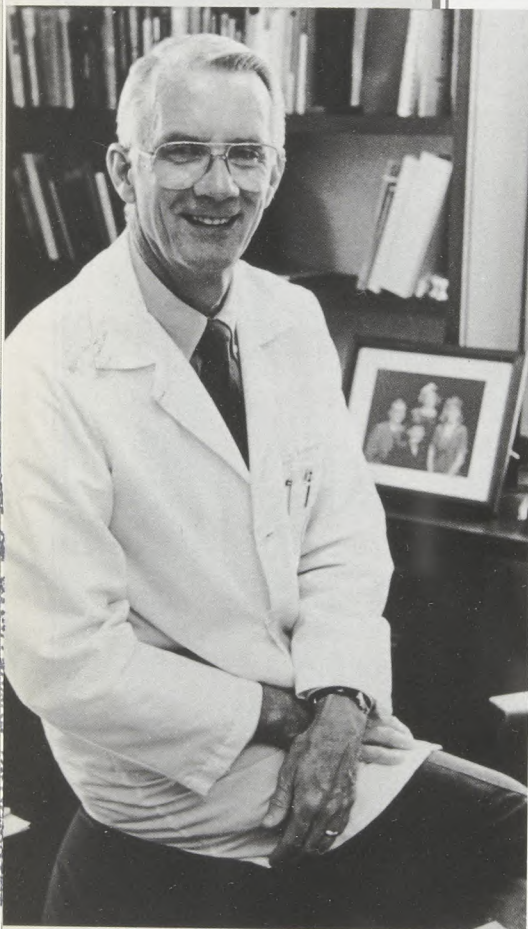
When it was launched in August of 1986, the Mallinckrodt Mammography Mobile was one of only five mammography outreach programs in the country and the first in the St. Louis region. The program was embraced and supported from its beginnings by Donald Brandin, then chairman and chief executive officer of Boatmen's Bancshares, Inc., and by the late Donald Schnuck, then chairman of the board of Schnuck Markets.

Evens expected to offer to all eligible women state-of-the-art mammography that was affordable and convenient. He also hoped to educate the community - doctors and patients alike - of the importance and value of early detection of breast cancer through mammography.

■ by Michaele Gold

PARTNERS IN

Saving Lives



Ronald Evens, M.D.:

"We need to make breast-cancer screening a routine part of life, like any other checkup."

The concept of widespread breast-cancer screening was new to the country and new to St. Louis. "We had never before taken an X-ray test to the community," says Evens. "But no other test in radiology, not even the chest X ray, has been as successful as mammography in diagnosing disease. Mammography has proven not only that it can detect cancer before a mass can be felt, but also that when you find the cancer early, the cure rate jumps from less than fifty percent to more than ninety percent."

The idea for mobile mammography crystallized in 1985 at a Radiological Society of North America meeting in Chicago where a van for mammography was displayed. Both Evens and Judy Destouet, M.D., head of mammography at Mallinckrodt Institute, were intrigued with the concept. "Mobile technology had been used for several years with other equipment for other diseases," says Destouet. "It was finally adapted for mammography, and it's an ideal tool for the purpose. It was evident that to reach large numbers of women economically, we would have to do something like this."

Evens quickly became committed to the concept and commissioned a dedicated mammography van to be built.

What also was immediately evident was the need for convenient sites for the van. Conve-

nience was, and still is, a key factor in reaching large numbers of asymptomatic women to screen for breast cancer. Obtaining accessible locations was the next critical step in bringing a screening program to the women of St. Louis, and the cooperation of the business community would be essential. As the van was being built to specification, Don Schnuck and Don Brandin both stepped in and agreed to help.

Don Brandin remembers how the MIR and Boatmen's partnership developed: "My wife Pitty, who was a trustee of Children's Hospital in the period when Ron Evens was heading both Children's and Mallinckrodt Institute, had been discussing the developing screening program with Virginia Trent, then VP of marketing and public relations at Children's. I thought it was a good idea because so many women don't make the effort or don't want to spend the money," says Brandin. "We had so many of our friends touched by breast cancer. It was always such a tragedy when it wasn't caught early.

"After Virginia and I talked about how I could help to launch the corporate screening program, Boatmen's agreed to underwrite the screening of all our eligible employees. I can't say I did anything heroic," says Brandin. "I think it's an excellent program and very reasonably priced for the benefit. I didn't intend it that way, but I think it was great for employee relations, as it turned out. Women really appreciated the fact that we gave a damn."

Thanks to Boatmen's support, the new mammography mobile was launched at a press confer-

Sam Hayes: "In nineteen ninety, we screened seven hundred and fifty-nine women at Boatmen's and found one cancer. I think it's a wonderful program."



ence held on August 11, 1986, at Boatmen's Tower downtown. Boatmen's continues to underwrite yearly screening and has expanded the program since its merger with Centerre Bank. Sam Hayes, president and CEO of Boatmen's National Bank of St. Louis, is convinced that the program increases compliance. "If we didn't have the van on site, half our people probably wouldn't have mammograms," says Hayes. Since 1986, more than 2,850 mammograms have been provided to Boatmen's employees.

With the first corporate partnership established with Boatmen's, it was equally important to obtain convenient sites for public screenings for women near their homes, and, for that, Ron Evens turned to Schnucks.

"We had never before taken an X-ray test to the community. But no other test in radiology has been as successful as mammography in diagnosing disease."

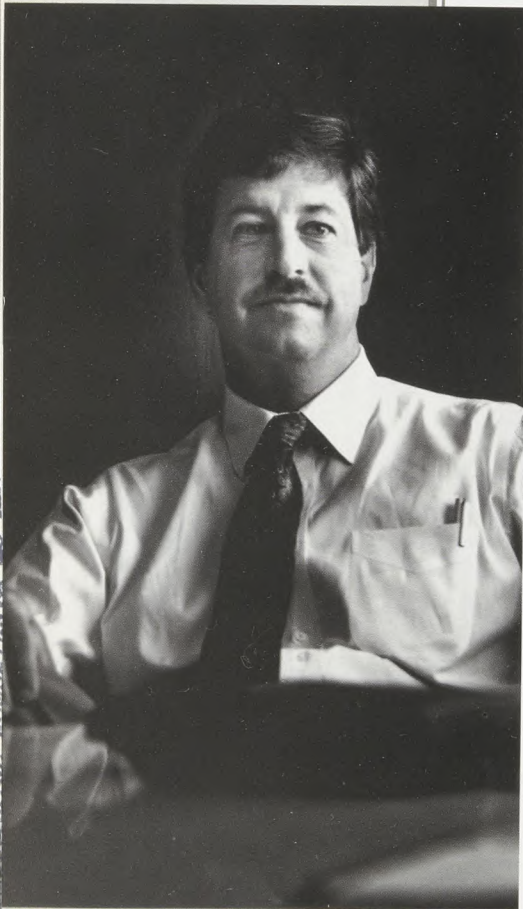
Scott Schnuck, president and chief operating officer, describes how the Schnuck Markets and MIR partnership came about: "When my dad was chairman of the board of Children's Hospital and Ron Evens was its president and CEO, Ron came to Dad and asked if we would like to host the mammography van at our stores. Dad said 'yes.' He saw it as an opportunity to do something good for St. Louis."

"When we started the program, you could really see the gratitude that people felt toward us for providing the service. The program just keeps growing from year to year," says Scott Schnuck.

"We've gotten such good feedback," says Craig Schnuck, chairman of the board and CEO of Schnuck Markets. "At first, I

PARTNERS IN

Saving Lives



Scott Schnuck: "The reaction from the community has been so positive that we definitely intend to continue our commitment to the program."

remember we thought we'd participate on an experimental basis. We picked out stores regionally, thinking that we would try not to oversaturate a particular area. But we found that the demand was much greater than we thought it would be. The St. Louis community has been good to us, and Scott and I want to carry on our father's commitment to return some things to the city and to the area." Since 1986, more than 14,000 screenings have been performed at Schnuck Markets.

The Mallinckrodt Mammography Mobile has provided over 30,000 high-quality screening mammograms since 1986.

Schnuck Markets also underwrites breast-cancer screening for its office employees at its yearly health fair. "The very first time we screened our employees, three cancers were found," explains Craig Schnuck. "There was a tremendous positive response. Fay Patakas, in our office, was one of the women whose cancer was detected at our first employee breast-cancer screening."

FAY PATAKAS:

"I had had my baseline mammogram six years ago, and when Schnucks offered mammograms at their health fair, I knew it was time. I got my report from Mallinckrodt Institute on a Friday night, and I just about panicked. Monday morning I went to my gynecologist, John Cadice, who sent me to Doctor Mariano Floro at Christian North-east Hospital. He took one look at the films and scheduled me for a biopsy on Thursday morning. The tumor was about the size of a half-dollar and was so deep and so high you could not feel it. I was scheduled the following Monday for a modified mastectomy of the left breast. I then had intensive chemotherapy for eight months.

"I am so fortunate that I am free of any cancer. The chemotherapy was not a lot of fun, but I lived through it. I do take Tamoxifen and probably will for quite a long time. I know that having the mammogram in the van saved my life. As a result, most of my family have mammograms on the van.

"I am so grateful to Schnuck Markets for offering breast-cancer screening and for saving my life." □

If you measure the success of a program by the number of participants it helps and by those who learn from it, MIR's Mammography Outreach Program is very successful. Virtually all providers in the St. Louis area have followed Mallinckrodt Institute's lead in developing screening mammography programs and lowering the price of mammograms. The Mallinckrodt Mammography Mobile has provided over 30,000 high-quality screening mammograms since 1986 and continues to screen, on average, about 40 women per day, five days a week. To date, 70 area corporations have participated in MIR's Mammography Outreach Program, providing over 16,000 screenings to women in the workplace.

Evens believes that one important reason the program continues to be so successful is MIR's

emphasis on quality. The mammography team at Mallinckrodt Institute is a group of highly specialized experts, including trained, registered radiologic technologists who are dedicated to screening mammography. The specialization and high volumes combine to create a high level of expertise that contributes significantly to the program's ongoing success.

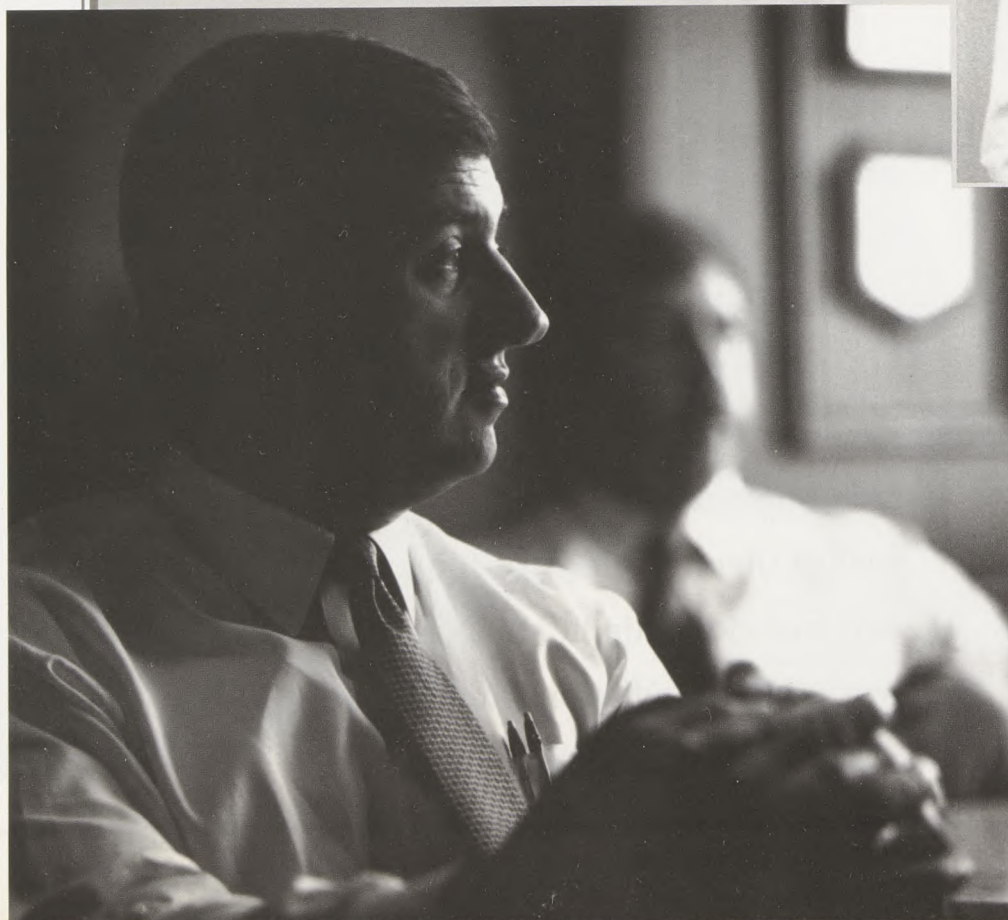
Yet, there is much more to be done. One in nine women will develop breast cancer in her lifetime, and this year 44,500 women will die of the disease. Although experts agree that mammography is the key to early detection and increased survival, only 20 percent of eligible women take advantage of it. Partnerships, like that of Schnucks, Boatmen's, and MIR will be needed in the future to reach the other 80 percent. □



Judy Destouet, M.D.:

"Every fifteen minutes three women develop breast cancer and one woman dies. We need to change those statistics."

Craig Schnuck: "This program creates a feeling of goodwill. We still get letters of thanks every year."



LEARNING TO BE A DOCTOR

*A medical
student's
summer
clerkship.*

Medical school was an eye-opener for Elizabeth Anne Miller (Liz to family and friends). Miller, a second-year student at Washington University School of Medicine, unequivocally says that she “has wanted to be a doctor for a very long time,” even to the point of knowing what she wanted to specialize in. But that soon changed once she entered medical school. “Since I’ve been in medical school, I’ve been exposed to many new and different facets of medicine. Now, I realize there are tons of things I’m interested in.” A summer clerkship in Mallinckrodt Institute of Radiology’s (MIR) Radiation Oncology Center has given her more food for thought.

by Vicki Kunkler



Liz Miller, a St. Louisan who graduated from Kirkwood High School and from Smith College, arrived at Washington University School of Medicine after carefully weighing the pros and cons of several medical school programs.

LEARNING

TO BE A

DOCTOR

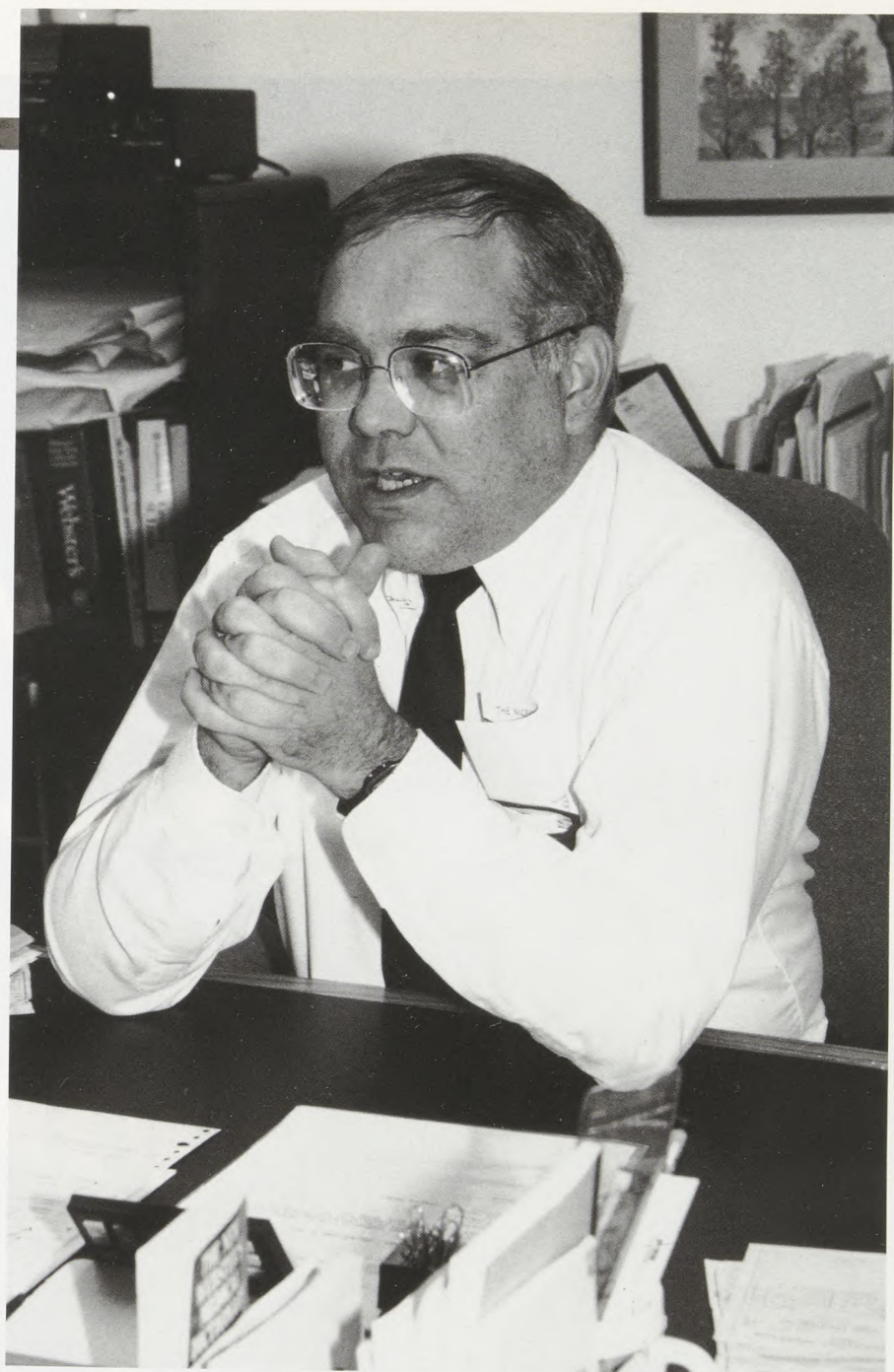
The Medical School annually offers eight-week summer clerkships in various academic and clinical programs. Since Miller is especially interested in the clinical aspect of medicine, she chose the Radiation Oncology project — the only summer program with patient contact. Todd Wasserman, M.D., professor of radiation oncology, chief of the lymphoma service, and clinical chief of Radiation Oncology at Jewish Hospital, was Miller's mentor for the project.

Wasserman, who is known internationally for his research in developing a radiosensitizer that will make cancer cells more vulnerable to the effects of radiation, is an enthusiastic supporter of the summer clerkship program. "The program brings in fresh minds and new ideas and extra pairs of hands to help with projects," explains Wasserman. "It's gratifying for the faculty because we do a considerable amount of teaching."

"We have an opportunity to convert some of the students into cancer physicians," he adds with a grin. "We have a fair number of former students who return as residents."

Wasserman had initiated a study to determine if women treated with mantle radiation therapy for Hodgkin's disease develop breast cancer at a greater frequency or at younger ages than the average female population. Miller was enthusiastic about the project and began working with Wasserman immediately. "I met with Doctor Wasserman on the Monday following the Friday of final exams," she says. "I didn't get a break, but I was very anxious to begin this project."

"You have to understand that Liz came to us as a first-year medical student without knowing what



project we'd be working on or even knowing that she would be working with me," explains Wasserman. "This study was one of several projects I had in mind for her. After telling her about the various projects and the status of each one, Liz felt the Hodgkin's study would fit her needs very well. Liz could relate to it because she is a young female and the patients are young females, and she had worked in a mammography program in Boston. Liz is a good people-person, and both she and the patients benefitted from her involvement in the project."

Todd Wasserman, M.D.: "I think Liz was amazed at the depth of the relationship between radiation oncologists and their patients. One of my patients was first treated at age sixteen. She's now twenty-six, and I still see her."

"I found radiation oncology surprisingly interesting," says Miller. "Before I became involved with the project, I really knew nothing about this specialty. I was interested in the clerkship because it would give me a chance to do clinical research and to see patients. But I was very surprised once I got into the study."

"I was impressed that radiation oncologists have so much patient contact — that's very important to me. Especially gratifying was seeing all of the patients who are getting better, who are in the process of recovering. And the study gave me the best of both worlds because I also gained hands-on experience in processing the information we gleaned from the study, trying to figure out what's going on, and then determining what's coming out of the numbers."

"The study gave me the best of both worlds."

The study began with a list from the Radiation Oncology Center's tumor registry of 196 female Hodgkin's disease patients treated between 1969 and 1980. The initial list was narrowed down to 74 by excluding the deceased and those patients who had a recurrence of Hodgkin's or who had developed second primary tumors.

Miller then began telephoning each of these women. "At this point in the study, I was working on my own," she says. "I'd spend my days, actually I'd spend my evenings after five o'clock, calling the patients. I told them upfront that I was working with Doctor Wasserman on a project, investigating a potential problem, and I needed their help." Some women were unable to be contacted and some declined to participate in the study; the study group eventually stood at 47.

"Some of the women who recently had a mammogram were afraid to have their films reread," Miller recalls. "The patients felt that the doctors might find something their doctors didn't see. It brought back the fear."

"That fear of cancer is in all of us, I think, but specifically for this group of women. They understand what it's like to have cancer. They're not like other people who think they'll never get cancer," Miller adds. "But they also understand about detecting cancer early so it doesn't develop into a catastrophe. Most of the women were very responsive about either going to a nearby hospital if they lived out of town or coming to the Institute for mammography. After talking to some of the patients, I thought maybe I'd meet them when they came in for their mammograms, or I would definitely call them if they were concerned about the mammography results. I don't know if you would call it emotionally involved, but I was definitely concerned about these women as individuals, not just as statistics in a study."

Miller remembers one woman in particular who had Hodgkin's disease when she was very young. "Christine was wonderful, very talkative, very open about her disease," Miller says. "We talked for an hour. Christine told me that she has been cancer-free for several years now. She's married and has three children. Amazing!"

"Something Christine said really made an impression on me," Miller continues. "She said that even though she's been cancer-free all these years, every time she goes back for her checkup all the emotions and, especially the fear, comes back. But she seems to be handling everything extremely well."

But there were some patients who weren't coping as well as Christine. "Another woman was very upset when I called and told her about the study," says Miller. "She didn't want to know what might happen. Her fear was so great. I felt terrible for her."

"I assured her that I would follow her case closely and was available to talk with her whenever she wanted. I explained each step of the study to her. In the end, she agreed to participate."

Miller says that what impressed her about the study was that although the women were anxious at first (they thought they were receiving bad news), they were willing to talk about their cancer. Why were they so willing to talk? "Today, people are more aware of the causes of cancer, the risk factors, and what steps to take to detect cancer early, like mammograms and rectal exams," says Miller. "Unfortunately, because of the incidence of cancer, it's become a topic of discussion."

"Also, what struck me most about Doctor Wasserman's practice is that he's been following his patients for many years. He knows them. He's definitely established a good relationship with them. I'm sure it's extremely gratifying for him to see these people come back for their annual follow-up and to see them looking so great and feeling so well. I like that full circle."

The eight-week project turned into a three-month stint for Miller. "I chose to work longer until school started because I really wanted to get more data," says Miller, "and I wanted to know about my patients."

But with the start of medical school in September, Miller found that she had to make a choice between her studies and the proj-

LEARNING

TO BE A

DOCTOR

ect. "I didn't feel I could give a fair share of my time because of school," she says. "I didn't want to cheat the project or the patients." The data analysis will be completed by Wasserman and his radiation oncology staff.

"I don't know if you would call it emotionally involved, but I was definitely concerned about these women as individuals, not just as statistics in a study."

In reflection, Miller says the summer clerkship was a good experience. "I learned so much from Doctor Wasserman; he's a wonderful mentor. He let me be an active participant in the project as well as the clerkship program instead of just an observer. Doctor Wasserman gave me more responsibility than I originally thought I would have. As a result, I learned a great deal from him," she says. "I like working with the patients, and I enjoy the academic atmosphere. There's always that opportunity to continue learning. The clerkship gave me another specialty to consider." □

Editor's note: *As part of her clerkship, Liz Miller prepared a report on the Hodgkin's disease study. Her paper has been submitted to the American Journal of Roentgenology.*

WOMEN AT RISK

The 47 women involved in a study led by Todd Wasserman, M.D., chief of service, lymphoma, are survivors of Hodgkin's disease, a type of lymphoma or cancer that develops in the lymphatic system. The disease is rare, accounting for only one percent of all cases of cancer in the United States and affecting young people between the ages of 15 and 34. However, Hodgkin's patients are at greater risk of developing second primary cancers. But the good news is that because of modern radiation therapy and combination chemotherapy, more than 75 percent of all newly diagnosed Hodgkin's disease patients are curable.

The objectives of MIR's study are threefold: to determine if women treated for Hodgkin's disease with mantle radiation develop breast cancer at a greater frequency or at younger ages than the average female population, to make these women and their physicians more aware of the possible increased risk of developing breast cancer, and to encourage these women to start having yearly mammography. Similar studies are being conducted at the University of Michigan and at Massachusetts General Hospital, Boston.

The participants were asked to come to the Institute for a mammogram. If a woman had recently had a mammogram at another facility, her films were sent to the Institute for inclusion in the study. For consistency in the project, Bar-

bara S. Monsees, M.D., associate professor of radiology and a key member of the Institute's mammography program, interpreted all of the mammograms.

Preliminary findings from the study are being compiled. According to Wasserman, "There is very little we can do, short of the changes that have already occurred, to totally prevent a woman with Hodgkin's from ever getting breast cancer. We don't know if she's at higher risk for breast cancer because of her immune system, the Hodgkin's disease, or the therapy for the Hodgkin's. Our intention is to educate the rest of the world — physicians, patients, families, and friends — so they're aware of the risks. The best thing we can do for patients is to recommend that they have mammograms at age thirty-five or ten years after treatment, whichever occurs first.

"It's not been proven that the therapy is a direct cause of the breast cancer. We certainly don't want people to fear the radiation therapy because Hodgkin's disease responds well to radiation therapy. Early mammography for women will detect breast cancer in its earliest stages when it is most curable." □

FYI

THE DIRECTOR'S OFFICE REPORT

NEW STAFF

Joseph A. Borello, M.D., assistant professor of radiology, Division of Diagnostic Radiology.

Yihung Abel Cheng, M.S., research associate in radiology, Division of Radiation Oncology.

DeWitte T. Cross, III, M.D., assistant professor of radiology, Division of Diagnostic Radiology.

Arjun Godhwani, Ph.D., adjunct research associate in radiology, Division of Radiology Research.

Mary L. Vogelsang Graham, M.D., instructor in radiology, Division of Radiation Oncology.

Diana L. Gray, M.D., assistant professor of radiology and assistant professor of obstetrics/gynecology, Division of Diagnostic Radiology.

Karen J. Halverson, M.D., instructor in radiology, Division of Radiation Oncology.

John W. Matthews, D.Sc., instructor in radiology, Division of Radiation Oncology.

Timothy J. McCarthy, Ph.D., research associate in radiology, Division of Radiation Sciences.

Jeff M. Michalski, M.D., instructor in radiology, Division of Radiation Oncology.

Eduardo G. Moros, Ph.D., assistant professor of radiology, Division of Radiation Oncology.

Neal R. Stewart, M.D., instructor in radiology, Division of Diagnostic Radiology.

Marie E. Taylor, M.D., instructor in radiology, Division of Radiation Oncology.

Thomas M. Vesely, M.D., instructor in radiology, Division of Diagnostic Radiology.

OFF STAFF

Steven L. Anolik, M.D., instructor in radiology, completed three years of residency and a one-year fellowship in Radiation Oncology, and has entered private practice with Triangle Radiation Oncology Associates, Inc., Beaver, Pennsylvania.

Ranjit K. Bera, Ph.D., research instructor in radiology, Division of Radiation Sciences, has accepted a position in the Imaging Department at St. Louis University Hospital.

Kenneth T. Bing, M.D., instructor in radiology, completed a one-year fellowship in interventional radiology.

C. David Burtner, M.D., instructor in radiology, completed a two-year fellowship in neuroradiology and has entered private practice with Radiological Consultants Association, Fairmont, West Virginia.

John Clemett, M.D., completed a four-year residency in Diagnostic Radiology and has received an interventional radiology fellowship at Yale University School of Medicine, New Haven.

Lawrence D. Dalan, M.D., instructor in radiology, completed a one-year fellowship in interventional radiology and has accepted a position at St. John's Mercy Medical Center, St. Louis.

Dale M. Fletcher, M.D., instructor in radiology, completed four years of training in Diagnostic Radiology, a one-year fellowship in abdominal radiology, and has entered private practice with Radiological Associates, P.C., St. Louis.

Barbara A. Garner, M.D., instructor in radiology, Division of Nuclear Medicine, has entered private practice with Greenville Radiology, P.A., Greenville, South Carolina.

Bernadette V. Jakomin, M.D., instructor in radiology, completed a one-year fellowship in abdominal radiology and has accepted an academic staff position at New England Medical Center, Boston.

Jeffrey J. Kovalic, M.D., instructor in radiology and chief resident, Radiation Oncology, 1990-1991, completed a three-year residency and a one-year fellowship in Radiation Oncology, and has entered private practice in Jackson, Tennessee.

Joseph K. T. Lee, M.D., professor of radiology and director of magnetic resonance imaging, has accepted the position of chairman of radiology, University of North Carolina at Chapel Hill.

Johnson Liou, M.D., instructor in radiology, completed a four-year residency in Diagnostic Radiology and a one-year fellowship in magnetic resonance imaging, and has accepted a position at Crawford Long Hospital, Atlanta.

Michael P. Postma, M.D., instructor in radiology, completed a two-year fellowship in neuroradiology and has entered private practice in Columbus, Georgia.

Jonathan D. Root, M.D., instructor in radiology, completed a one-year fellowship in chest radiology and has entered private practice in St. Louis.

Christopher C. Rowe, M.D., completed two years of residency in Nuclear Medicine and has accepted the position of director of nuclear medicine at The Queen Elizabeth Hospital, Woodville South, South Australia.

Michael R. Schiering, M.D., completed four years of training in Diagnostic Radiology and has entered private practice with the Gainesville Radiology Group, Gainesville, Florida.

Henry H. L. Shih, M.D., completed one year of residency in Nuclear Medicine and has received a diagnostic radiology research program fellowship at the National Institutes of Health, Bethesda, Maryland.

Douglas K. Smith, M.D., chief resident, Diagnostic Radiology, 1990-1991, completed a four-year residency in Diagnostic Radiology and has joined the staff at Wilford Hall United States Air Force Medical Center, Lackland AFB, Texas.

Andre S. Strzembosz, M.D., completed one year of training in Nuclear Medicine and has received an interventional radiology fellowship at Indiana University Medical Center, Indianapolis.

Paul J. Tobben, M.D., instructor in radiology, completed a two-year fellowship in neuroradiology and has entered private practice in Charlotte, North Carolina.

FYI

THE DIRECTOR'S OFFICE REPORT

Continued from page 23.

William G. Way, Jr., M.D., completed a four-year residency in Diagnostic Radiology and has received a computed tomography, ultrasound, magnetic resonance imaging fellowship at University Hospital's University of Michigan Medical School, Ann Arbor.

Daniel P. Winder, M.D., completed two years of residency in Nuclear Medicine and has received a nuclear medicine fellowship at the University of Washington, Seattle.

Thomas W. Zusag, M.D., instructor in radiology, completed three years of residency and a one-year fellowship in Radiation Oncology, and has entered private practice in Chicago.

FIRST-YEAR POSTGRADUATES

John A. Freeby, M.D., received his Bachelor of Science in biochemistry and molecular biology from the University of Wisconsin and his medical degree from the University of Chicago.

Robert Y. Kanterman, M.D., received his Bachelor of Science degree in biology from the University of Miami and his medical degree from the University of Miami School of Medicine.

Marc G. Koenig, M.D., received his Bachelor of Science degree in Greek and English and a Master of Arts in Greek and Latin from the University of Nebraska at Lincoln. He received his medical degree from the University of Nebraska Medical Center.

Gary D. Luker, M.D., received his Bachelor of Science degree in chemistry from the University of Evansville and his medical degree from Washington University School of Medicine.

Sean M. Muldowney, M.D., received his Bachelor of Arts degree in biology from the University of North Carolina at Chapel Hill. He received his medical degree from the University of North Carolina School of Medicine.

Kurt R. Simpson, M.D., received his Bachelor of Science degree in electrical engineering from the University of Illinois and his medical degree from Washington University School of Medicine.

John A. Stahl, M.D., received his Bachelor of Arts degree in chemistry from Southern Methodist University and his medical degree from Duke University.

NEW FELLOWS

Gregg A. Baran, M.D., instructor in radiology, is a fellow in neuroradiology. He received his Bachelor of Science in chemistry and mathematics and his medical degree from Vanderbilt University. He completed his residency in diagnostic radiology at St. Louis University Hospital. Baran has received American Board of Radiology certification.

M. Alan Burns, M.D., instructor in radiology, is a fellow in vascular and interventional radiology. He completed four years of residency in Diagnostic Radiology at Mallinckrodt Institute of Radiology.

Kevin E. Burton, M.D., instructor in radiology, is a fellow in vascular and interventional radiology. He received his Bachelor of Science degree in chemical engineering from the University of Kentucky and his medical degree from the University of Louisville. He completed his residency in diagnostic radiology at Indiana University Hospital. Burton has received American Board of Radiology certification.

Gino Dilorio, M.D., Ph.D., instructor in radiology, is a fellow in magnetic resonance imaging. He received his Bachelor of Engineering in chemical engineering at Manhattan College, Bronx, New York. He received his Master of Science and Ph.D. degrees in nuclear engineering from the University of Illinois. He received his medical degree from the University of Miami. Dilorio completed his residency in radiology at St. Louis University Hospital.

Avraham Eisbruch, M.D., instructor in radiology, is a fellow in Radiation Oncology. He completed three years of residency in Radiation Oncology at Mallinckrodt Institute of Radiology.

Jeffrey W. Hanna, M.D., instructor in radiology, is a fellow in chest radiology. He received his Bachelor of Science degree in integrated life sciences from Kent State University and his medical degree from Northeastern Ohio University School of Medicine. He completed his residency in diagnostic radiology at the North Carolina Baptist Hospital, Winston-Salem. Hanna has received American Board of Radiology certification.

Martin E. Keisch, M.D., instructor in radiology and chief resident, Radiation Oncology, 1991-92, is a fellow in Radiation Oncology. He completed three years of residency in Radiation Oncology at Mallinckrodt Institute of Radiology.

Harold E. Kim, M.D., instructor in radiology, is a fellow in Radiation Oncology. He completed a one-year internship in internal medicine and a two-year residency in radiation oncology at Northwestern Memorial Hospital, Chicago.

Kevin W. McEnery, M.D., instructor in radiology, is a fellow in musculoskeletal radiology. He received his Bachelor of Arts degree in chemistry from Holy Cross College, Worcester, Massachusetts, and his medical degree from Georgetown University, Washington, D.C. He completed his internship at Miriam Hospital, Providence, Rhode Island, and his residency in radiology at Rhode Island Hospital. McEnery has received American Board of Radiology certification.

Cynthia F. Morrison, M.D., instructor in radiology, is a fellow in neuroradiology. She received her Bachelor of Science degree in engineering from the University of California-Berkeley and her Master of Science degree in engineering from Stanford University. She received her medical degree from Albert Einstein College of Medicine. Morrison completed her internship at Montefiore/Bronx Municipal; a residency in nuclear medicine at St. Luke's, New York City; and residencies in radiology at George Washington University, Washington, D.C., and New England Deaconess, Boston.

FYI

Mark A. Perry, M.D., instructor in radiology and cochief resident, Diagnostic Radiology, 1990-91, is a fellow in abdominal radiology. He completed four years of training in Diagnostic Radiology at Mallinckrodt Institute of Radiology.

Jorge G. Castillo-Perez, M.D., instructor in radiology, is a fellow in Radiation Oncology. He received his medical degree from the University of Puerto Rico Medical School. He completed internships at Tulane Affiliated Hospitals, New Orleans, and Hospital Domas, Ponce, Puerto Rico. He completed his residency in radiation oncology at the University of Puerto Rico, Medical Science Campus.

Tracy L. Roberts, M.D., instructor in radiology, is a fellow in mammography. She received her Bachelor of Science degree in biology and chemistry from the University of South Carolina and her medical degree from the University of South Carolina School of Medicine. She completed her internship at Spartanburg Regional Medical Center, Spartanburg, South Carolina, and her residency in diagnostic radiology at Allegheny General Hospital, Pittsburgh. Roberts has received American Board of Radiology certification.

Hui Hua Shu, M.D., instructor in radiology, is a fellow in magnetic resonance imaging. She received her Bachelor of Science degree in biology from the University of Missouri-Kansas City, and her medical degree from the University of Missouri-Kansas City School of Medicine. She completed one year of internship and three years of residency in radiology at The Jewish Hospital of

St. Louis. Shu has received American Board of Radiology certification.

Scott D. Stevens, M.D., instructor in radiology, is a fellow in vascular and interventional radiology. He completed four years of residency in Diagnostic Radiology at Mallinckrodt Institute of Radiology.

Harri V. Suoniemi, M.D., instructor in radiology, is a fellow in neuroradiology. He received his medical degree from the University of Turku, Finland, and a specialist degree in radiology and neuroradiology from the University of Tampere, Finland. He completed residencies in diagnostic radiology at St. Francis General Hospital, Pittsburgh, and at Hospital of St. Raphael, New Haven, Connecticut.

R. Stephen Surratt, M.D., instructor in radiology, is a fellow in abdominal radiology. He completed four years of residency in diagnostic radiology at Mallinckrodt Institute of Radiology.

FIRST-YEAR RESIDENTS

Mitchell A. Miller, M.D., received his Bachelor of Science in biology from Cornell University and his medical degree from Stanford University Medical School. He completed his internship and one year of residency in internal medicine at Beth Israel Hospital, Boston.

Valerie Christy Reichert, M.D., received her Bachelor of Science and her medical degree from Stanford University. She completed her internship at Santa Clara Valley Medical Center, San Jose, California.

Cynthia Karfias Rigsby, M.D., received her Bachelor of Science and her medical degree from Duke University. She completed her internship at the University of North Carolina Hospital, Chapel Hill. Rigsby is a member of AOA.

Michael C. Roarke, M.D., received his Bachelor of Science degree in chemistry and his Master of Science degree in science teaching from State University of New York, Albany. He received his medical degree from the University of Rochester, New York. Roarke completed his internship at St. Mary's Hospital, Rochester. He is a member of AOA.

Francis J. Schlueter, M.D., received his Bachelor of Science degree in electrical engineering from the University of Notre Dame and his medical degree from the University of Cincinnati. He completed his internship at Good Samaritan Hospital, Cincinnati. Schlueter is a member of AOA.

NUCLEAR MEDICINE RESIDENTS

Paul L. Chesis, M.D., Ph.D., received his Bachelor of Science degree in biochemistry from the University of California at Berkeley. He received his Master of Science degree in chemistry and his medical degree from Washington University, St. Louis. He completed his internship at The Jewish Hospital of St. Louis.

Warren S. Lun, M.B., B.S., received his undergraduate degree from the University of Queensland and his medical degree from the Royal Australasian College of Radiology. He completed his internship at Princess

Alexandra Hospital, Brisbane, Australia; a one-year residency in surgery at Queen Elizabeth II Jubilee Hospital, Brisbane; and a five-year residency in radiology at Royal Brisbane Hospital, Brisbane.

RADIATION ONCOLOGY RESIDENTS

Michael G. Beat, M.D., received his Bachelor of Arts degree in biology and modern languages from Kansas State University. He received his Master of Public Health degree in tropical medicine and his medical degree from Tulane University. Beat completed his internship at Walter Reed Army Medical Center, Bethesda Maryland.

Kun S. Chao, M.D., received his medical degree from Kaohsiang Medical College, Taiwan, and completed his internship at St. Luke's Hospital, St. Louis.

Gopal R. Desai, M.D., received his undergraduate degree from Venkateswara University, Kurnool, India, and his medical degree from All India Institute of Medical Sciences, New Delhi. He completed his internship at Government General Hospital, Kurnool, and three years of residency in radiation oncology at All India Institute of Medical Sciences, New Delhi.

Daniel Keleti, M.D., received his Bachelor of Science degree in chemistry and his medical degree from the University of Pittsburgh. He completed his internship at the University of Pittsburgh Hospital.

FYI

THE DIRECTOR'S OFFICE REPORT

Continued from page 25.

Maurice L. King, M.D., received his Bachelor of Science degree in chemical engineering from Tulane University and his medical degree from Louisiana State University. He completed his internship and a residency in surgery at Ochsner Hospital, New Orleans, and a residency in radiation oncology at Beyar County Hospital, San Antonio.

M. Saleem Mahmood, M.D., received his medical degree from Washington University School of Medicine. He completed his internship and a two-year residency in internal medicine at St. Luke's Hospital, St. Louis.

Richard K. Valicenti, M.D., received his Bachelor of Science degree in physics from Massachusetts Institute of Technology and his Master of Arts degree in physics from Columbia University. Valicenti received his medical degree from Hahnemann University, Philadelphia. He completed his internship at Hahnemann University Hospital.

VISITING PROFESSORS & INVITED LECTURERS

James A. Brink, M.D., assistant professor of radiology, lectured on "Gallstone Imaging Characteristics" at the Fourth International Symposium on Biliary Stone Therapy, Mayo Clinic, Rochester, Minnesota, October 2-4.

PROMOTIONS

Ralph V. Clayman, M.D., was promoted to professor of radiology.

Farrokh Dehdashti, M.D., was promoted to assistant professor of radiology.

Robert J. Gropler, M.D., was promoted to assistant professor of radiology and assistant professor of internal medicine.

William D. Middleton, M.D., was promoted to associate professor of radiology.

Daniel Picus, M.D., was promoted to associate professor of radiology and associate professor of surgery.

John W. Wong, Ph.D., was promoted to associate professor of radiology.

CHANGE OF STATUS

Robert G. Levitt, M.D., associate professor of radiology, has joined the MIR staff full-time.

Jeffrey J. Brown, M.D., assistant professor of radiology and chief of magnetic resonance imaging, presented "MR Imaging: Overview of Clinical Applications," "MR Imaging of the Upper Abdomen," "MR Imaging of the Pelvis," "MR Imaging of the Cardiovascular System,"

and "MR Imaging of the Musculoskeletal System" at the Annual Meeting of the Royal Australasian College of Radiology - New Zealand Branch, Hamilton, August 23-25.

Judy M. Destouet, M.D., associate professor of radiology and head of mammography, as program coordinator, lectured on "Imaging the Altered Breast," "Stereotactic FNAB and Localizations: The USA Experience," "Hands-On Stereotactic Technique," "Techniques for Breast Needle Localization," and "Screening Issues: Self-Referral, High Volume/Low Cost, Legal Considerations," and was a participant in panel discussions at the Breast Cancer Diagnosis: Interventional Procedures Conference, Hilton Head, South Carolina, June 16-19.

Bahman Emami, M.D., professor of radiology and associate director of the Radiation Oncology Center (clinical research), spoke on "Postoperative Radiation Therapy in Non Small Cell Lung Cancer" and "High Dose Conventional Fractionation Radiation Therapy in Unresectable Non Small Cell Lung Cancer" at the Sixth World Conference on Lung Cancer, Melbourne, Australia, November 10-14.

Humberto Fagundes, M.D., assistant chief resident, Radiation Oncology, presented "CT and MR Interpreted by the Radiation Oncologist" at the Annual Conference of the Illinois State Society of Radiology Technologists, Collinsville, Illinois, September 14.

Mokhtar H. Gado, M.D., professor of radiology, lectured on "Cerebral Infarction," "Aneurysms and Vascular Malformations," and "Demyelinating Disease" at the Harvard Postgraduate

Course on Basic and Current Concepts in Neuroradiology, Head and Neck Radiology, and Neuro-MRI, Boston, September 23-27.

Delia M. Garcia, M.D., assistant professor of radiation oncology, presented "High Dose Rate Interstitial Brachytherapy Combined with Long Duration Interstitial Hyperthermia in the Treatment of Newly Diagnosed Malignant Gliomas" at the Central Illinois Radiation Therapy Society Meeting, St. Louis, July 27.

Harvey S. Glazer, M.D., associate professor of radiology, lectured on "CT of Pulmonary Collapse," "CT of Mediastinum - Normal Anatomy and Variants," and "CT of Mediastinum - Differential Diagnosis" at the Society of Computed Body Tomography and Magnetic Resonance Summer Practicum, Keystone, Colorado, August 18-22.

Louis A. Gilula, M.D., professor of radiology and cochief of the musculoskeletal section, as visiting professor, spoke on "MRI of Wrist and Hand" and "Radiographic Approach to Wrist Pain" at the Bethesda Naval Hospital, Bethesda, Maryland, August 26-27. He presented "Radiographic Approach to Wrist Pain" at the Medical College of Virginia, Richmond, August 29. He lectured on "CT of Foot and Ankle" at the University of California, San Diego, and at the San Diego Veterans Hospital, September 20. Gilula presented "Tailored Approach to Wrist CT" at the International Skeletal Society, San Diego, September 27. He served as cochairman of the 7th International Wrist Investigators Workshop and lectured on "Radiographic Appearance of Scapholunate

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Ligament," Orlando, Florida, October 1. He spoke on "Imaging of the Wrist" at the American Society for Surgery of the Hand, Orlando, October 4. As invited lecturer, he presented "MR of the Wrist," "CT of the Wrist," and "Radiographic Interpretation of Ligamentous Instabilities of the Wrist" at the 8th Annual Perry M. Berg Orthopaedic Symposium, Billings, Montana, November 22-23.

Jay P. Heiken, M.D., associate professor of radiology and codirector of computed body tomography, presented "Imaging Hepatic Metastases" at the categorical course on gastrointestinal radiology at the 68th Annual Meeting of the American College of Radiology, Minneapolis, September 29. As visiting professor, he spoke on "MR Imaging of Pelvic Neoplasms" and "Rapid MR Imaging of the Abdomen" at McGill University, Montreal, November 4-5.

Ryuji Higashikubo, Ph.D., assistant professor of radiation oncology, presented "DNA Analysis on a Flow Cytometer" at the Flow Cytometry Workshop, School of Allied Health Professions, St. Louis University Medical Center, St. Louis, November 21.

Bruce L. McClennan, M.D., professor of radiology and head of abdominal imaging, as visiting professor and grand rounds speaker, presented "Acute Renal Infection" and "Contrast Media Reaction" at Brown University Rhode Island Hospital, Providence, November 4-5. As the 1991 C. John Hodson Memorial Lecturer, he spoke on "The Optimal Urogram: From Basics to Biotech," at Yale University, New Haven, November 7-8.

G. Leland Melson, M.D., professor of radiology and chief of diagnostic ultrasound, lectured on "Superficial Parts and Color Doppler Ultrasonography: An Update" at the 8th Annual Symposium of the North Texas Ultrasound Society, Dallas, October 26.

Stephen M. Moerlein, Ph.D., associate professor of radiology and associate professor of biochemistry, presented "Novel F-18 Labeled Analogues of Benperidol for PET Study of Dopaminergic D-2 Receptor Binding *In Vivo*," coauthored with **Joel S. Perlmutter, M.D.**, associate professor of neurology and research associate professor of radiology, and **David Parkinson, Ph.D.**, assistant professor of cell biology and physiology, Washington University School of Medicine, at the 21st Annual Meeting of the Society for Neuroscience, New Orleans, November 10-15.

Paul L. Molina, M.D., assistant professor of radiology, spoke on "CT and MRI of the Thorax: Current Applications and Future Directions" and "Cardiovascular MRI" at the Imaging and Interventional Radiology Update, sponsored by the Southeastern Angiographic Society, Atlanta, October 10-13.

Gilbert H. Nussbaum, Ph.D., associate professor of radiology, presented "Concurrent Ir-192 Interstitial Brachytherapy and Long-Duration, Low Temperature Conductive Interstitial Hyperthermia for Treatment of Recurrent Carcinoma of the Prostate" at the American Society of Clinical Hyperthermic Oncology Meeting, Chicago, November 1.

Henry D. Royal, M.D., associate professor of radiology and associate director of the Division of Nuclear Medicine, spoke on "The Physician's Role in the Management of Persons Exposed to Low Level Radiation" at the Conference on Low Level Radioactive Waste Management and Disposal, Virginia State University, Petersburg, September 26. He presented "Radon and Ionizing Radiation" at the Environmental Medicine Issues State-of-the-Art Conference, sponsored by the American College of Occupational Medicine, St. Louis, October 30. He lectured on "Lessons from Chernobyl" at the Greater Kansas City Radiological Society, Kansas City, Missouri, November 13.

Stuart S. Sagel, M.D., professor of radiology, director of chest radiology, and codirector of computed body tomography, lectured on "Vascular Mediastinal Lesions," "CT of the Pericardium," "Role of CT and MRI in Bronchogenic Carcinoma," and "CT of Asbestos-Related Thoracic Disease" at the First Summer Practicum of the Society of Computed Body Tomography, Keystone, Colorado, August 18-23. As visiting professor, he spoke on "Role of CT in Bronchogenic Carcinoma," "CT of the Mediastinum," "High Resolution CT of the Lung," "CT of the Thymus," and "CT of Asbestos-Related Thoracic Disease" at the University of Pittsburgh, September 11-12. He presented "High Resolution CT of the Lung," "Role of CT and MRI in Bronchogenic Carcinoma," "CT and MRI Anatomy in the Thorax," "CT of Mediastinal Masses," and "CT of the Pleura" at the International Symposium in Chest and Cardiovascular

Radiology, New Delhi, India, October 28-November 1.

Marilyn J. Siegel, M.D., professor of radiology, presented "CT of the Pediatric Thymus" and "CT of the Pediatric Retroperitoneum" at the First Summer Practicum of the Society of Computed Body Tomography, Keystone, Colorado, August 18-23. She spoke on "CT of Congenital Lung Disease and Thymus," "CT of the Pediatric Retroperitoneum," and "CT of the Pediatric Pelvis" at the Fourth International Imaging Course of the Chinese University of Hong Kong, Shatin, September 30-October 5.

Michael W. Vannier, M.D., professor of radiology, director of the Division of Radiology Research, and head of the image processing lab, presented "3-D Medical Imaging" to the Department of Electrical and Computer Engineering and "3-D Craniofacial Imaging" to the Department of Radiology at the University of Manitoba, Winnipeg, September 16-17. He lectured on "Quantitative Analysis and Manipulation of ECG-gated MR Imaging in a Macintosh Environment" at the 13th Annual International Conference IEEE Engineering in Medicine and Biology Society, Orlando, November 1. He lectured on "Radiology of the Head and Neck" at the Contemporary Head and Neck Reconstruction Symposium, Cincinnati, November 2.

FYI

VISITING PROFESSORS & INVITED LECTURERS

Continued from page 27.

Michael J. Welch, Ph.D., professor of radiology and director of the Division of Radiation Sciences, spoke on "Estrogen Receptor Targeting" at the National Cancer Institute Breast Imaging Workshop: State-of-the-Art and New Technologies, Bethesda, September 5. As an invited speaker, he presented "PET Methodology in the Year 2000" at the PET Today and the Future Inauguration Symposium, Uppsala, Sweden, September 11. He lectured on "New Accelerator Designs" at the IV International Workshop on Targetry and Target Chemistry, Villigen, Switzerland, September 9.

Jeffrey F. Williamson, Ph.D., associate professor of radiology, lectured on "New Developments in Heterogeneity Corrections in Brachytherapy Dosimetry" at Memorial Sloan-Kettering Cancer Center, New York,

March 7, and at Yale University, Department of Radiation Oncology, New Haven, March 8. He presented "Physical Aspects of Quality Assurance in Low-Dose Rate Brachytherapy" at the Symposium on Quality Assurance in Radiotherapy Physics, sponsored by the American College of Medical Physics, Galveston, Texas, May 15-18.

Anthony J. Wilson, M.D., assistant professor of radiology, lectured on "MR of the Knee" at the International Skeletal Society and Postgraduate Course, San Diego, September, 27.

John W. Wong, Ph.D., associate professor of radiology, spoke on "Imaging in Radiation Therapy" at the First Biannual Meeting on Physics in Clinical Radiotherapy of the European Society for Therapeutic Radiology and Oncology, Budapest, October 14-17.

Between Accelerator Manufacturers and In-House Service Groups." *Carti, Inc., Little Rock, Arkansas.

Robert E. Drzymala, Ph.D.; **Michael D. Holman, B.S.**; **Di Yan, Ph.D.**; **Nilesh L. Jain, M.S.**; **Michael G. Kahn, M.D.**; and **James A. Purdy, Ph.D.**, "X-Windows-Based Tools for Radiation Therapy Treatment Plan Evaluation."

Russell L. Gerber, B.S., and **John W. Wong, Ph.D.**, "Re-evaluation of Treatment Plans Using On-Line Imaging Information."

Nilesh L. Jain, M.S.; **Michael G. Kahn, M.D.**; **Robert E. Drzymala, Ph.D.**; **Bahman Emami, M.D.**; and **James A. Purdy, Ph.D.**, "Ranking Radiotherapy Treatment Plans Using Decision-Analytic and Heuristic Techniques."

Eric E. Klein, M.S., and **James A. Purdy, Ph.D.**, "Entrance and Exit Depth Doses for the Clinac 2100C."

Eric E. Klein, M.S.; **Perry W. Grigsby, M.D.**; **Jeffrey F. Williamson, Ph.D.**; and **Ali S. Meigooni, Ph.D.**, "Pre-installation Empirical Testing of Room Shielding for HDR Remote Afterloaders."

Daniel A. Low, Ph.D.; **George Starkschall, Ph.D.**; **Neil E. Sherman, M.D.**; **Stanley W. Bujnowski, M.S.**; **James E. Ewton, B.S.**; and **Kenneth R. Hogstrom, Ph.D.**, "Design and Construction of a 3-D Electron Bolus for Treatment of the Paraspinal Muscles." *M. D. Anderson Cancer Center, Houston.

Daniel A. Low, Ph.D., and **Kenneth R. Hogstrom, Ph.D.**, "Measurement of the Relative Linear Collision Stopping and Scattering Powers of Electron Bolus Material." *M. D. Anderson Cancer Center, Houston.

John W. Matthews, D.Sc.; **William B. Harms, B.S.**; **Robert E. Drzymala, Ph.D.**; and **James A. Purdy, Ph.D.**, "Simultaneous BEV and Room View Displays for a 3-D Radiotherapy Treatment Planning System." *Institute for Biomedical Computing, Washington University, St. Louis.

Gilbert H. Nussbaum, Ph.D.; **George M. Hahn, Ph.D.**; and **Frederich A. Gibbs, M.D.**, "Whatever Happened to Hyperthermia?" *Stanford University, **University of Utah, Salt Lake City.

Harold Perera, Ph.D.; **Jeffrey F. Williamson, Ph.D.**; **Suzanne P. Monthofer, B.S.**; **Walter R. Binns, Ph.D.**; **Joseph Klarmann, Ph.D.**; **Gary L. Fuller, Ph.D.** and **John W. Wong, Ph.D.**, "Dose Linearity and Signal-to-Noise Ratio Characteristics of a Rapid 2-D Brachytherapy Dosimetry System." *Computerized Medical Systems, St. Louis; **Department of Physics, Washington University, St. Louis.

James A. Purdy, Ph.D.; **Ira J. Kalet, Ph.D.**; **Edward L. Chaney, Ph.D.**; and **Sandra Zink, Ph.D.**, "Radiotherapy Treatment Planning Tools: A Collaborative Project of the National Cancer Institute." *University of Washington, Seattle; **University of North Carolina, Chapel Hill; ***National Cancer Institute, Bethesda, Maryland.

Eric D. Slessinger, M.S.; **Russell L. Gerber, M.S.**; **William B. Harms, B.S.**; **Eric E. Klein, M.S.**; and **James A. Purdy, Ph.D.**, "Independent Collimator Dosimetry for a Dual Photon Energy Linear Accelerator."

Jeffrey F. Williamson, Ph.D., "Basic Brachytherapy Physics."

Jeffrey F. Williamson, Ph.D.; **Zuofeng Li, D.Sc.**; and **John W. Wong, Ph.D.**, "One-Dimensional Scatter-Integration Method for Brachytherapy Dose Calculations near Localized Heterogeneities."

SYMPOSIA

AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE

The following members of the Division of Radiation Oncology participated in the 33rd Annual Meeting of the American Association of Physicists in Medicine, San Francisco, July 21-25.

Lawrence W. Berkley, M.S., and **James A. Purdy, Ph.D.**, "The Need for Better Communication

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Jeffrey F. Williamson, Ph.D.; Perry W. Grigsby, M.D.; and Carlos A. Perez, M.D., "Physical Aspects of Dose Specification in Intracavitary Brachytherapy: Analysis of Two Mg-H-Based Systems."

John W. Wong, Ph.D.; Walter R. Binns, Ph.D.*; Y. Abel Cheng, M.S.; John W. Epstein, Ph.D.*; and Joseph Klarman, Ph.D.*, "Development of a High Resolution Fiber-Optic Radiotherapy Imaging System."
*Physics Department, Washington University, St. Louis.

John W. Wong, Ph.D.; Di Yan, Ph.D.; William B. Harms, B.S.; and James A. Purdy, Ph.D., "Software Tools for Radiation Therapy Treatment Verification."

AMERICAN SOCIETY FOR THERAPEUTIC RADIOLOGY AND ONCOLOGY

The following Mallinckrodt Institute staff members participated in the 33rd Annual Scientific Meeting of the American Society for Therapeutic Radiology and Oncology, Washington, D.C., November 4-8.

SCIENTIFIC SESSIONS

Avraham Eisbruch, M.D., "ICRU Report 38 Orthogonal Dimensions and MG-HRS as Estimators of Tissue Volume Irradiated by Intracavitary Implants."

Bahman Emami, M.D., "3-D Static Conformal Radiotherapy: Preliminary Results of a Prospective Clinical Trial."

Humberto Fagundes, M.D., "Metastasis From Carcinoma of the Uterine Cervix Treated with Irradiation Alone."

Eric E. Klein, M.S., "Changes in Photon Dose Distributions Due to Breast Prostheses."

Peter P. Lai, M.D., "The Prognostic Significance of Local Recurrence in Prostate Carcinoma After Definitive Radiotherapy" and "Differential Radioprotection of Cultured Human Diploid Fibroblasts and Fibrosarcoma Cells by WR-1065."

Jeff M. Michalski, M.D., "The Use of On-line Image Verification to Estimate the Variation in Radiation Therapy Dose Delivery."

James A Purdy, Ph.D., "Advances in a 3-D Radiation Treatment Planning System."

Jeffrey F. Williamson, Ph.D., "Rapid 2-D Brachytherapy Dosimetry Systems Using a Plastic Scintillation Sheet Detector."

John W. Wong, Ph.D., "A Second Generation High Resolution Fiber-Optic Radiotherapy Imaging System."

Xiafang Zhang, M.D., "Differential Radioprotection of Cultured Human Diploid Fibroblasts and Fibrosarcoma Cells By WR1065."

POSTER PRESENTATIONS

Humberto Fagundes, M.D., "Protection by WR-2721 of Radiation-Induced Acute Retinopathy" and "Postoperative Irradiation in Malignant Fibrous Histiocytoma."

REFRESHER COURSES

Perry W. Grigsby, M.D., "Carcinoma of the Endometrium - Prognostic Factors and Management."

Jeffrey F. Williamson, Ph.D., "Basic Brachytherapy Physics."

APPOINTMENTS/ ELECTIONS

Robert E. Drzymala, Ph.D., assistant professor of radiology, was elected president-elect of the Missouri River Valley Chapter of the American Association of Physicists in Medicine.

Eric E. Klein, M.S., instructor in radiology, was appointed to the American Association of Physicists in Medicine Task Group on Breast Prosthesis.

Tom R. Miller, M.D., Ph.D., associate professor of radiology, was elected president-elect of the Missouri Valley Chapter of the Society of Nuclear Medicine.

Joseph L. Roti Roti, Ph.D., professor of radiology, associate director of the Radiation Oncology Center, and chief of the cancer biology

section, was appointed chairperson of the award selection committee of the Radiation Research Society.

Franz J. Wippold, II, M.D., assistant professor of radiology, was elected fellow in the American College of Angiology.

Jeffrey F. Williamson, Ph.D., associate professor of radiology, was appointed member of the Physics Committee of the American Endocurietherapy Society.

Michael W. Vannier, M.D., professor of radiology, director of the Division of Radiology Research, and head of the image processing lab, was appointed to the editorial board of the *Dento Maxillo Facial Radiology Journal*.

TECHNOLOGIST NEWS

Dean Ann Brake, R.T., clinical instructor, presented "ESWL-Extracorporeal Shockwave Lithotripsy" at the Missouri Society of Radiologic Technologists Fourth District Lecture Series, St. Louis, November 13.

Kathleen Johnson-Brunsdon, A.R.R.T.(R), A.R.R.T.(NM), C.N.M.T., B.S., chief technologist, Division of Nuclear Medicine, was elected secretary-treasurer of the technologist section of the Missouri Valley Chapter of the Society of Nuclear Medicine.

Paul C. Hanson, C.N.M.T., assistant supervisor, nuclear medicine, was elected president of the Technologists Section of the Society of Nuclear Medicine for the 1992-1993 term.

Michael Kleinhoffer, R.T., interventional radiology research technologist, was appointed chairman of the 1991-92 Missouri Society of Radiologic Technologists Fourth District Evidence of Continuing Education Lecture Series. As the first lecturer of the series, he presented "Percutaneous Transfemoral Placement of Inferior Vena Cava Filters," St. Louis, September 25.

FYI

TECHNOLOGIST NEWS

Continued from page 29.

David J. Perry, C.N.M.T., staff nuclear medicine technologist, was elected president-elect of the technologist section of the Missouri Valley Chapter of the Society of Nuclear Medicine.

Cathy Valenza, B.S.R.T., assistant supervisor, computed tomography, lectured on "CT: Principles and Protocols" at Mallinckrodt Medi-

cal, Inc., St. Louis, June 3, 10, 17, and 24.

Officers for the Fourth District, Missouri Society of Radiologic Technologists are **Michael Kleinhoffer, R.T.**, president elect; **Dean Brake, R.T.**, vice president; **Cynthia Daniels, B.S., R.T.**, statewide vice president and member at large; **Christine Block, R.T.**, secretary; and **Francine Harmon, R.T.**, treasurer.

CALENDAR

CONFERENCES

December 1-6, 1991
Radiological Society of North America
Chicago

December 1-6
American Association of Women Radiologists
Chicago

December 3-6, 1991
American Endocurietherapy Society
Las Vegas

December 4, 1991
International Society of Biliary Radiology
Chicago

December 8-11, 1991
American Medical Association/Interim Meeting
Las Vegas

December 9, 1991
City-Wide Radiology Conference
"Degenerative Disk Disease and Low Back Pain"
Michael T. Modic, M.D.
Scarpellino Auditorium
St. Louis

January 12-17, 1992
Society of Uroradiology
Scottsdale

January 13, 1992
City-Wide Radiology Conference
Saint Louis University
To Be Announced

January 22, 1992
4th District, Missouri Society

of Radiologic Technologists
Lecture Series
"Mammography"
Cynthia Daniels, B.S., R.T.
MIR East Building
St. Louis

February 10, 1992
City-Wide Radiology Conference
6th Annual Daniel R. Biello Memorial Lecture
"Evaluation of Myocardial Viability"
Robert O. Bonow, M.D.
Scarpellino Auditorium
St. Louis

February 26, 1992
4th District, Missouri Society of Radiologic Technologists
Lecture Series
"Student Presentation"
St. Louis Community College
St. Louis

March 7-12, 1992
American Institute of Ultrasound in Medicine
San Diego



Residents, fellows, and trainees for 1990-1991 were (front row, left to right) Doctors Andrew Landes; Jonathan White; Robert Smith; Dixie Anderson, residency program coordinator; William Horstman; Mark Perry; Ronald Evens, director of the Institute; Douglas Smith; Edith Kang; Gilbert Jost, chief, Division of Diagnostic Radiology; Santiago Medina; Johnson Liou; Nitin Tanna; Constance Stone Courtois; (second row, left to right) Scott Baker; James Duncan; Rachel Fineberg; Alan Oser; Lawrence Dalan; Neal Stewart; Jonathan Root; David Burtner; Michael Postma; Clark West; Paul Hsieh; Shawn Quillin; James Matthews; Howard Forman; Bernadette Jakomin; Joseph Borrello; Clinton Anderson; Daniel Broderick; (third row, left to right) Alan Burns; Scott Stevens; John Clemett; William Mehard; Andre Strzembosz; Paul Tobben; Henry Shih; Mark Zobel; Mark Mayhle; Michael Schiering; William Way; Colin Derdeyn; Dale Harris; Jamie Surratt; Stephen Surratt; (fourth row, left to right) Daniel Winder; Thomas Farmer; Hamid Latifi.

SPOTLIGHT

PROFILES OF THE CHIEFS

HUMBERTO FAGUNDES

Medicine has become a family tradition for Humberto Fagundes, M.D., the assistant chief resident in Radiation Oncology. His parents are both in the health-care field: his father is a Harvard University-trained radiation oncologist who established a cancer center in southern Brazil, and his mother is a Harvard-trained dosimetrist. Fagundes' wife Marta is in the Barnes Hospital psychiatry residency program.

Fagundes himself came to medicine after first testing the waters as a teacher and then as an importer/exporter. But the transition into medicine came naturally, he says. He was handling the administrative end of the family's cancer center when he decided to enter medical school. Fagundes received his medical degree from the Federal University of Rio Grande do Sul, Brazil.

"I came to the United States because there are very few training programs in Brazil," he says. "And because of the high professional and educational standards set by my family, I was drawn to Mallinckrodt Institute because of its worldwide fame for excellence."

The Fagundes family tradition appears to have no end. Both of his children are leaning toward medical careers; daughter Laura wants to be an obstetrician/gynecologist, and son Luca is interested in child psychiatry. □

WILLIAM HORSTMAN

Chief Resident William Horstman, M.D., has crisscrossed the West, the Midwest, and the West Coast in his medical career. Horstman has "wanted to be a doctor as far back as I can remember" and has made the necessary moves, both professionally and physically, to make that dream come true.

A native of Parkston, South Dakota, Horstman received his Bachelor of Science degree in chemistry from the University of South Dakota and his medical degree from Washington University School of Medicine. He then did an internship and a two-year residency in urology at the Naval Hospital in San Diego. Next, it was back to St. Louis and Mallinckrodt Institute.

Why MIR? "I had a good friend, Andrew Wu, who was a radiology resident in 1987 at the Institute," says Horstman. "He spoke very highly of the program. The Institute also has an excellent national reputation, which I knew it deserved because of my work here as a medical student. I enjoy the intellectual stimulation that radiology affords. It's constantly changing, constantly new. It's a dynamic field with new technology and new ideas coming so rapidly."

After his residency here is completed, Horstman, his wife Marla, three-year-old daughter Melanie, and six-week-old son Steven will be heading back to San Diego to finish up a two-year obligation to the U.S. Navy. After that, Horstman's plans are not finalized, but he is considering a career in academic radiology. □



(left to right): Doctors William Horstman, Edith Kang, and Humberto Fagundes.

EDITH KANG

Edith Kang, M.D., chief resident in Diagnostic Radiology, initially chose pediatrics as her specialty. But after completing her rotations in medical school, Kang found that she was most challenged by radiology. "I find radiology very stimulating," she says. "I like the problem solving."

Kang was born in Boston but grew up in Memphis, Tennessee. She returned to the East for college, receiving her Bachelor of Arts degree in human biology from Brown University and her medical degree from the University of Pennsylvania. Her decision to come to Mallinckrodt Institute was influenced by the Institute's reputation for excellence.

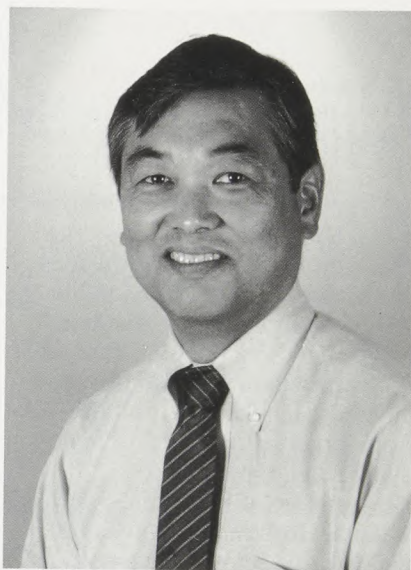
Kang plans to remain at the Institute after her residency is completed. She will be entering the fellowship program for body magnetic resonance imaging.

"I'm not sure what I'll do after the fellowship is completed," she says. "I want to stay in magnetic resonance or some other imaging modality, like computed tomography or ultrasound. And, of course, it depends on where my husband Tim's work in electrical engineering might take us." □

REFLECTIONS

DANIEL K. KIDO, M. D.

As of March 1, 1991, Daniel Kido, former director of neuroradiology at the University of Rochester Medical Center in New York, joined the MIR faculty as chief of neuroradiology. Kido has conducted research into the clinical value of magnetic resonance imaging (MRI) as an alternative to invasive procedures in the diagnosis of carotid stenosis. He also has tried to understand the role of imaging in the diagnosis of dementia and depression in the elderly, of multiple sclerosis, and of low-back pain. In this interview, Kido gives us some insight into his goals for MIR's neuroradiology section.



What is your particular area of interest for your research? I have a great interest in functional imaging — trying to understand the function behind a static two-dimensional image. For example, if one looks at a contrast-enhanced CT scan of the head, one can tell only if there is a breakdown of the blood-brain-barrier: no functional image. However, if one can acquire images fast enough, then one can determine the rate that the contrast leaks out of the blood vessel. With MRI, which is based on the spin of protons in an image, one can begin to better characterize lesions such as tumors by understanding the chemistry and physics on which the images are based. Furthermore, with spectroscopy it is possible to understand part of the metabolism that is going on in the tissue being imaged. A major goal for our neuroradiology section is to try to understand what is happening to the tissue that we image. I've spent most of my time recently looking at alterations in blood flow as it relates to stroke. Functional imaging is very useful in this field. Another area of research that I am

interested in is medical decision making and its relationship to neuroradiology. The techniques used by investigators in this field will be used by the government to set up medical guidelines to determine allocation of resources. Ultimately, I think that all new imaging devices will be evaluated by the techniques in medical decision making. I am currently working on a project with a medical-decision group in Rochester who are trying to understand the use of MR in the diagnosis of MS. We are comparing MR against other techniques — visual- and auditory-evoked responses, muscle conduction tests, spinal fluid, and various blood tests. We also hope to develop new diagnostic imaging criteria for MS using medical decision making techniques.

Are there any new clinical programs you are trying to develop? Yes, neurointerventional radiology. This new section is being developed to support and complement the neurosurgeons. Arteriovenous malformations in certain parts of the brain and certain aneurysms which have blood are candidates for neurointerventional techniques. Another example are large intracranial blood vessels that spasm and, thus, pre-

vent the brain from receiving blood. The neurointerventional radiologist can dilate these constricted vessels. Another example in which the neurointerventionalist can help the neurosurgeon is the preoperative embolization of tumors. The neurointerventionalist can reduce blood loss by embolizing the vessels in the tumor. MIR will have the only full-fledged neurointerventional program in the region.

Do you have a particular philosophy or point of view as a teacher of future radiologists? Yes, I do. I would like the residents to understand that the most important thing they can do for their patients is to consistently do what they think is best for them. I will encourage residents to do this because they will not only gain the confidence of the patient and referring physician, but they will also feel good about themselves.

What kinds of services would you like to be able to offer to referring physicians? I am trying to create a floor where referring physicians can "one-stop shop" for any of their patients with neuroradiological problems. The clinician can come to that floor and consult with the radiologist. The goal will be to help the referring physician get the best answer rapidly with as little running around as possible. I want referring physicians to feel that their patients are not only getting the right studies but also the highest quality studies. Our neuroradiology facilities are being remodeled, as you know, with the goal of making our services not only of higher quality but vastly more convenient. The first phase of the renovation should be completed by February, and the floor is expected to be completely remodeled by spring. □



Paul L. Molina, M.D., assistant professor of radiology, has been named coursemaster of the 1992-1993 sophomore radiology course. Molina and Marilyn J. Siegel, M.D., professor of radiology, who is stepping down as coursemaster, are sharing the responsibility for the 1991-1992 program. According to Siegel and Molina, radiology is a vital part of medicine because it interfaces with all other subspecialties. The sophomore course, which may be the student's only formal contact with radiology, uses a lecture series format to offer insight into the capabilities of radiology and the logical use and selection of radiologic procedures as well as to provide an introduction to the basic principles of film interpretation. In her eight years as coursemaster, Siegel has formed a core group of 10 lecturers who effectively teach the subspecialties of diagnostic radiology, nuclear medicine, and radiation biology. Siegel also has set the course at 16 to 18 hours and has initiated hands-on clinical experience for interested students. Molina hopes to build on Siegel's initiatives to include more clinical applications.

FOCAL SPOT

MALLINCKRODT INSTITUTE OF RADIOLOGY

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