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# Focal Spot, Fall 1978

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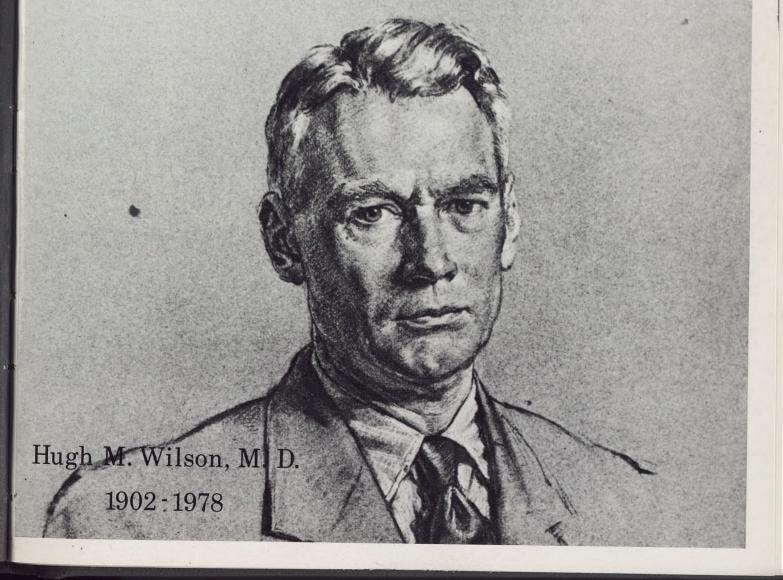
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A NEWSLETTER OF MALLINCKRODT INSTITUTE OF RADIOLOGY

**VOLUME VIII** 

**FALL 1978** 

**NUMBER 22** 



#### ON THE COVER

Editor's Note: This twenty-second issue of Focal Spot is dedicated to Hugh M. Wilson, M. D., who served as the second Director of the Edward Mallinckrodt Institute of Radiology from 1949 to 1963, in recognition of his contributions as a distinguished physician and educator. As the Institute enters its forty-eighth year of existence, his spirit provides encouragement and inspiration to the furthering of our goals at Mallinckrodt—to offer the best possible radiology training, provide the best in patient care, and actively pursue research at a fundamental and clinical level.

# Hugh M. Wilson

(The following article on Dr. Hugh Wilson is an expansion of the "In Memoriam" statement written by Dr. Ronald Evens, current Director of the Mallinckrodt Institute, for the Executive Faculty of the Medical School and the Medical Advisory Committee of Barnes Hospital.)

One of the most important influences in American radiology, Dr. Hugh M. Wilson, died on April 21, 1978 at the age of 76. Hugh Wilson was born in Jacksonville, Illinois, and received his M.D. from Washington University School of Medicine in 1927. Greatly influenced by Dr. Evarts Graham, he began his house staff training in surgery but transferred his talents to radiology in 1930. He received his radiology training at the Mallinckrodt Institute of Radiology under Dr. Sherwood Moore and was certified in 1934.

Hugh Wilson was on the staff of the Mallinckrodt Institute of Radiology and Washington University School of Medicine for less than one year when, in 1934, he was called to be the first Director of Radiology in the Department of Surgery at Yale School of Medicine. He served there from 1934 to 1949, becoming Professor of Radiology and first Chairman of the Department of Radiology in 1945. Yale awarded him an honorary degree in 1945.

Serving on the Yale faculty from 1944 to 1947 was Dr. Henry Kaplan, present Director of the Department of Radiology at Stanford University. Dr. Kaplan writes, "Hugh Wilson was regarded widely as perhaps the best single teacher on the entire faculty. His manner in the classroom was probing, challenging, and showed dissatisfaction with glib and superficial answers. He stimulated students to think deeply — to integrate what they knew about disease from their studies in pathology and clinical medicine with what they could see on the X-ray film."

Dr. Wilson returned to St. Louis in 1949 and became the second Professor and Head of the Department of Radiology at Washington University School of Medicine and the second Director of the Mallinckrodt Institute of Radiology. He served until 1963, when he resigned as Head of the Department, but continued in an active teaching role until 1967.

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In 1960, Dr. Mark Eagleton, Jr., President of the Alumni Federation of Washington University, presented the distinguished Alumni Award to Dr. Hugh Wilson in recognition of his inspiration to students and his attention to their welfare and academic status. Dr. Eagleton stated, "The benefits received by students at the University are due largely to the stature and understanding of the persons who, have instructed and guided them. The Alumni Award is a recognition by past students of the honored position you hold in their esteem."



Dr. Wilson at his testimonial dinner in 1968 is pictured with, left, his brother, Mr. William T. Wilson, Jr. and Mrs. Wilson, and on the right, his sister, Mrs. Edward M. Bullard and Mr. Bullard.

Dr. Wilson refused almost all public recognition. In 1968, Dr. Juan Taveras, third Director of the Institute, organized a recognition dinner for him but in lieu of having his portrait painted he agreed to the establishment of an endowment to encourage and recognize excellence in radiology among medical students. Reflecting his dedication as a physician and teacher, the Hugh M. Wilson Award for Meritorious Work in Radiology is presented annually to a member of the graduating class of Washington University Medical School.

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Dr. M. Kenton King, left, Dean of Washington University Medical School, accepts a check for the endowment honoring Hugh M. Wilson from Dr. Juan M. Taveras, third Director of the Mallinckrodt Institute.

It has often been said that first and foremost, Dr. Wilson was a teacher. He believed that teaching medical students and house officers was the unique responsibility of an academic radiology department. The patient and student came first, others afterwards. This approach created difficulties when you were the "other person", but it stimulated many of his students towards radiology.



According to Dr. William Seaman, Chairman of the Department of Radiology at the Presbyterian Hospital in the City of New York, "To the best of my knowledge the preview system of training residents was originated by Hugh Wilson shortly after he assumed the chairmanship of

the radiology department at the Yale School of Medicine in 1934."

In this method the resident independently reviews a number of cases, arrives at a professional diagnosis and again reviews the cases with a senior radiologist who agrees or disagrees with the resident's diagnosis, discusses the differential diagnosis and further investigative possibilities. The resident then dictates the report. Thus teaching becomes more meaningful as related to an actual patient.

"The preview system is an excellent way of utilizing senior radiologists for teaching and at the same time provide patient radiological services," added Dr. Seaman.

Dr. Kaplan recalls, "The personal modesty of Dr. Wilson coupled with a deeply rooted sense of idealism, the fierce loyalty to his own residents and staff which he displayed whenever the occasion called for it, all combined to engender a reciprocal loyalty on the part of the staff and residents at Yale which was very deeply felt. The time I spent working under Hugh Wilson was an unforgettable experience."

Dr. Harold Jacobson, Professor and Chairman of the Department of Radiology, Montefiore Hospital and Medical Center, described himself as a man whose professional life was deeply affected by Dr. Wilson.

"He was a consummate teacher with the rare capacity to instill in those about him an ardent desire not only to be good but to be the 'very best'. Dr. Wilson's sense of integrity and impeccable honesty was instilled in the entire department; the faculty and residents had to perform in a manner consonant with the precepts and concepts designed by this great man. . . . "

Hugh Wilson was one of the founders of the Association of University Radiologists and was scheduled to receive its first gold medal this year. While never an organization man, he recognized the need for an annual meeting of young clinicians and scientists in radiology to present and critically analyze research data.

"Dr. Wilson is the true father of the AUR," said Dr. Alexander Margulis, Chairman of the Department of Radiology at the University of California at San Francisco. "In many ways it reflects his personality and dedication to research."



Alexander Margulis, M.D.

Dr. Wilson was a clinician. While he recognized the limitations of radiology, he felt that a missed diagnosis was a personal loss to the patient and radiologist.

"I consider that Dr. Wilson was one of the truly great radiologists of our time," said Dr. Jacobson. "His diagnostic acumen was on a level which is rarely

equalled.

Dr. Kaplan regarded Dr. Wilson as a remarkably keen observer and recalls that he made a number of highly original observations in diagnostic radiology at Yale, but as he was very self-effacing he seldom was

willing to publish them.

"Hugh Wilson's personality had many other facets," said Dr. Ronald Evens, Director of Mallinck-rodt Institute of Radiology. "He was scrupulously honest, had great personal integrity, was demanding of himself and others, but was also shy and uneasy in large groups. Many will remember him fondly as a dedicated professor, constantly encouraging his

students to do better, and at his best in front of an X-ray with a resident, medical student, and attending physician. Many current radiologists, including myself, are indebted to his skills as a teaching radiologist."

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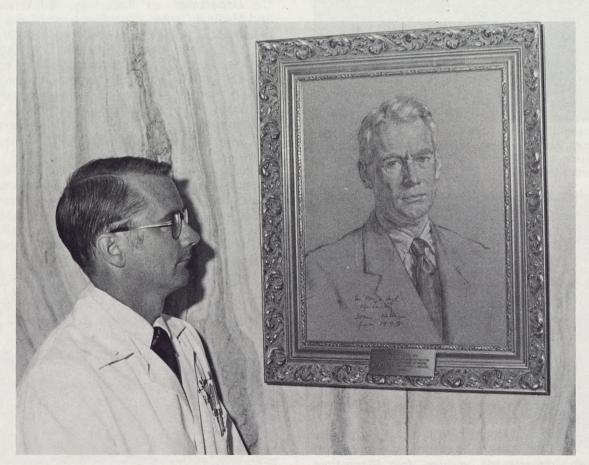
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Dr. Wilson's wife of nearly 50 years, Mary, preceded him in death in 1977. He is survived by his daughters, Sarah and Martha, a brother and a sister. They have shared with the Institute a charcoal portrait of Dr. Wilson which now hangs in a place of honor on the first floor of Mallinckrodt Institute in recognition of his contributions to the Institute and to many individuals and for his achievements as a teacher and investigator which have contributed greatly to the present stature of radiology. His family, colleagues at Washington University, and many radiologists throughout the world will miss him.

In 1976 Dr. Margulis wrote, "There are few people whom I respect more, appreciate more, and feel more warmly toward than Hugh Wilson."



Dr. Ronald G. Evens by the portrait of Dr. Wilson which was donated by his family to the Institute.

# Director of NIH to Deliver Scott Lecture

Donald S. Fredrickson, M. D., Director, National Institutes of Health, U. S. Department of Health, Education and Welfare, will deliver the seventh annual Wendell G. Scott Lecture at Washington University's Mallinckrodt Institute of Radiology.

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The internationally known scientist and administrator will speak on "Minding the Biomedical Continuum" at 4:00 p.m. Tuesday, October 10, in Scarpellino Auditorium.

Dr. Fredrickson's research interests in lipoprotein metabolism, medical genetics, and studies on the cause and prevention of arteriosclerosis are reflected in more than 200 publications in these scientific areas.

Born in Colorado in 1924, he was awarded the M.D. from the University of Michigan in 1949. Dr. Fredrickson has served as Director of the National Institutes of Health since 1975 and his previous important administrative positions include the Director of the National Heart Institute, Director of Intramural Research at the National Heart and Lung Institute, and President of the Institute of Medicine.

Dr. Fredrickson serves on the editorial board of the American Journal of Medicine and is a member of Alpha Omega Alpha, the American Academy of Arts and Sciences, and the National Academy of Sciences.

Dr. Fredrickson has been awarded the Gold Medal of the American College of Cardiology, the Distin-



Donald S. Fredrickson, M.D.

guished Service Award of the Department of Health, Education, and Welfare, and the Award of Merit of the American Heart Association.

The Wendell G. Scott Memorial Lecture was established by friends and colleagues of the late Dr. Scott as a living memorial to his excellence and leadership at Washington University and in radiology and medicine.

# RADIOLOGY RESIDENTS, TRAINEES AND FELLOWS, 1977-1978



Back row, left to right, Elson, AufderHeide, Hardy, Totty, W. Miller, Jr., Spies, Choplin, Herman, Nussbaum, Baglan, Rodriguez, Berkman, Holloman, Baron, Howard Glazer, Paull. Second row, Harvey Glazer, Lee, Prasad, Santoro, Bishop, Tievsky, Destouet, Gornish, Oakley, Ellis, Brinkley, Lenobel. Front row, Karstaedt, Weyman, Chief Resident, Evens, Radiologist-in-Chief and Director of MIR, Moran, Co-Chief Resident, T. Miller.

# 1978

# A New Beg

## Profile of the 1978 First Year Residents and Postgraduates

The cosmopolitan nature of the students in their first year of diagnostic training is reflected in their eight different medical school backgrounds and by their geographical distribution representing six states and one foreign country. They are creative and diverse with most expressing enthusiasm for music including guitar and jazz and one being an accomplished vocalist. Their unusual hobbies range from soaring and furniture refinishing to studying Asian religion.

Along with the academic schedule, orientation for the new class included a cordial welcome, good food and fellowship, and an opportunity to get acquainted at the Director's Luncheon in Queeny Tower; an afternoon of softball, volleyball, grilled hamburgers and all the trimmings at the Residents' and Staff Family Picnic in Pioneer Park; and on a continuing basis, the Noon Conferences held each day under the auspices of one of the subspecialty areas of diagnostic radiology.



Dr. Elsie Cintron



Dr. Philip J. Kenney



Dr. Barry L. Engelstad



Dr. Sidney D. Machefsky

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# 1st Year Residents

Dr. Elsie Cintron was born in San Juan, Puerto Rico and graduated from the University of Puerto Rico School of Medicine where she was elected to Alpha Omega Alpha. She served a rotating internship at the University District Hospital in San Juan. Married to Dr. Julio E. Benabe, a fellow in the renal division of Washington University Medical School, Dr. Cintron and her husband enjoy their like careers and a good fast game of tennis.

Dr. Philip J. Kenney was born in Syracuse, New York and received his M.D. from Johns Hopkins University where he met his wife, Jeannette Y. Lee, Ph.D., who is now an instructor in the Division of Radiation Oncology. A member of AOA, Dr. Kenny served his medical internship at St. Louis University. His hobby is refinishing colonial style furniture and in their spare time the couple enjoy weekend camping trips around Missouri.

Dr. Barry L. Engelstad, from Chicago, Illinois, is a graduate of M.I.T. and the University of California at San Francisco Medical School. Elected to Phi Beta Kappa and AOA, Dr. Engelstad served a medical internship at Barnes Hospital and his wife, Linda, is a medical resident at Jewish Hospital. The Engelstads have a son, Christopher, age 7. Playing the guitar and studying Asian religion are Dr. Engelstad's special interests but he also enjoys their family outings of bicycling and backpacking.

Dr. Sidney Machefsky, a native of Memphis, Tennessee, completed his B.S. degree in electrical engineering at Cornell University and graduated from Vanderbilt University School of Medicine. A member of AOA, Dr. Machefsky's hobbies are golf, photography, and music.

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Dr. Keith L. Mullenger



Dr. Gregory T. Odrezin



Dr. Bruce J. Thaler

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Dr. Pamela A. Kopen



Dr. Michael W. Vannier

# Postgraduates

Dr. Keith L. Mullenger, a native of New Rochelle, New York, is a Phi Beta Kappa graduate of Iowa State University and received his M.D. from Washington University. His enthusiasm for sports ranges from flying, soaring, and skiing, to tennis.

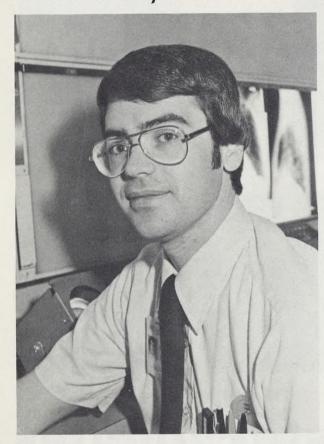
Dr. Gregory T. Odrezin was born in Savannah, Georgia and was a Phi Beta Kappa at Emory University where he received his B.S. in biology. He holds an M.D. from the Medical College of Georgia in Augusta and is a member of AOA. Dr. Odrezin's hobbies are swimming, track, and jazz music.

Dr. Bruce Jay Thaler, from Philadelphia, graduated from Hamilton College in Clinton, New York and completed the M.D. degree at Washington University. He received the Hugh M. Wilson Award in Radiology at graduation. His father is a physician in Long Island, New York, and his brother also attends Washington University Medical School. Dr. Thaler's hobbies are swimming, racquetball, and volleyball.

Dr. Pamela Kopen chose her native state of Pennsylvania to complete a B.S. degree in math at Lafayette College in Easton and the M.D. degree at Hershey Medical Center. A member of Phi Beta Kappa, Dr. Kopen is a talented vocalist, providing her own guitar accompaniment, songwriter, and pianist. Her other artistic pursuits are painting and sketching. Her husband, Dr. Michele P. Monaco, is a pediatrics intern at St. Louis Children's Hospital.

Dr. Michael W. Vannier was born at Hamilton Air Force Base, California and holds a B.S. degree in mechanical engineering and a M.D. degree from Kentucky University. He is a member of Pi Tau Sigma, mechanical engineering honorary society, and has worked as an engineering consultant at various times in his career. During the last two years of his medical training he was a research engineer in nuclear medicine. Dr. Vannier and his wife, Ann, have an 8 year old daughter, Cathy.

# New Chief Residents A Good Combination



Dr. Jeffrey Ellis, Chief Resident, was "into math" at the University of Illinois when he found that theoretical math was not as interesting to him as chemistry and biology and so decided to apply these subjects to medicine. Recipient of the Bronze Tablet Award and a Phi Beta Kappa graduate, he entered Loyola Stritch School of Medicine in Maywood, Illinois. His radiology rotation coupled with a summer work experience with two radiologists in a small town hospital led Dr. Ellis to choose radiology as his specialty.

Dr. Ellis came to Mallinckrodt, his first choice, for his internship and radiology residency. "Radiology is a pleasurable, dynamic field, but also requires a certain amount of hard work," he says. "You never stop learning and an interesting film is always exciting."

A native of Chicago, Dr. Ellis is a member of Alpha Omega Alpha and his hobbies include listening to classical music and playing tennis. He has enjoyed the life-style of St. Louis such as the theatre, restaurants, St. Louis Symphony, and professional sports — all the things that go into the quality of life. Whether to pursue academic radiology or private practice of the specialty is the decision he now faces.



Dr. Judy Marie Destouet, Co-Chief Resident, held a B.S. degree in microbiology from the University of Southwestern Louisiana and was in Los Angeles completing an internship in medical technology when she made the decision to enter medical school. A big factor in her decision was the advice and encouragement given her by Bill Wilson, a pre-law student and her future husband. "I was happy to be accepted at Baylor University Medical School because it was nearer home," said Dr. Destouet, meaning New Iberia, Louisiana, the region of azalea gardens and moss covered trees.

"Bill was to enter law school at the American University in Washington, D.C., so we had to resign ourselves to a mandatory separation for three years.

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and arti dec After med school I wanted to go directly into radiology rather than a rotating residency and Mallinckrodt Institute offered this advantage."

Quickly adapting to the challenging pace of the Institute, Dr. Destouet says she feels the female physician is treated with respect if she conducts

herself professionally.

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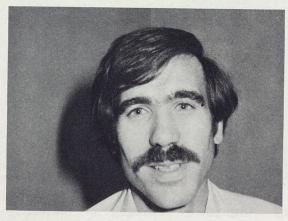
Dr. Destouet was married in January, 1976, and she and her husband, who is practicing International Law in St. Louis, have an attractive home in Olivette where they enjoy their swimming pool and garden during off-hours. She is expecting their first child in January.

The primary responsibilities of Drs. Ellis and Destouet are to serve in an intermediary role between residents and staff, to prepare the resident rotation and call schedules, and to provide resident input into the residency Selection Committee through interviews of resident candidates.

The warm, friendly, and considerate personal qualities of the chiefs are reflected in their successful handling of social functions such as the resident-staff picnic for over 100 guests on July 22 in Pioneer Park.

Both doctors have set high goals for themselves of quality patient care, solid roentgen diagnostic discipline, and mature collaboration with other personnel.

## Third Year Resident



Dr. Michael J. Besozzi, third year resident, was born in New York City and graduated Phi Beta Kappa from Rutgers University. He received his M.D. from Jefferson Medical College in Philadelphia and is a member of AOA.

Dr. Besozzi's hobbies are basketball and cycling and his wife, Letitia, is a medical receptionist, whose artistic talents include singing, acting, and interior decorating.

## 1978 Radiation Oncology Trainees



Dr. Craig L. Silverman, a native of Chicago, Illinois, is a Phi Beta Kappa graduate of the University of Illinois and completed the M.D. degree at Northwestern University. He is a member of Alpha Omega Alpha. An avid chess and bridge player, Dr. Silverman also enjoys cycling.



Dr. R. William Varesko, trainee in Radiation Oncology, graduated from Columbia Union College in Maryland with a B.A. in Physics. He holds a M.D. from Loma Linda University School of Medicine in California and served in the Armed Forces Health Professions Scholarship Program. Dr. Varesko is proficient in many sports: running, cycling, racquetball, tennis, fast badminton, ping pong; and his special interests are model railroading, electronics, physics, and math.

# The Director's Office Reports

## Recent Promotions-Department of Radiology

Dr. Robert J. Stanley to the rank of Professor of Radiology

**Dr. Louis A. Gilula** to the rank of Associate Professor of Radiology

Dr. Thomas P. Naidich to the rank of Associate

Professor of Radiology

Dr. Noah Susman to the rank of Associate Professor of Clinical Radiology

**Dr. Daniel R. Biello** to the rank of Assistant Professor of Radiology

Dr. King Tak Lee to the rank of Assistant Professor of Radiology

**Dr. Marilyn Siegel** to the rank of Assistant Professor of Radiology as well as Assistant Professor of Radiology in Pediatrics

Dr. Glenn Glasgow to Assistant Professor of

Radiation Physics in Radiology

Dr. Milton S. Klein to the rank of Assistant Professor of Radiology (also Assistant Professor of Internal Medicine)

Dr. Charles L. Abramson to the rank of Assistant

Professor of Clinical Radiology

**Dr. John L. Bardsley** to the rank of Assistant Professor of Clinical Radiology

Dr. Albert E. Hesker to the rank of Assistant Professor of Clinical Radiology

Dr. MacDonald B. Logie to the rank of Assistant Professor of Clinical Radiology

Dr. Ben R. Mayes to the rank of Assistant

Professor of Clinical Radiology

Dr. Gary J. Ehrhardt to the rank of Research Instructor in Nuclear Medicine in Radiology

#### New Staff

Dr. Frederick G. Abrath is an instructor in radiation physics in the Division of Radiation Oncology.

Dr. Roger J. Adams (D.M.D., M.S.) was appointed as an assistant professor of radiology (Dental Radiol-

ogy), effective 1/1/78.

Dr. Philip J. Weyman (chief resident 1977-78) has been appointed as an instructor in radiology in the

section of abdominal radiology.

**Dr.** Christopher J. Moran (co-chief resident 1977-78) has joined the staff as an assistant professor of radiology in the section of neuroradiology.

Mr. Jack Trachtman has been appointed as a research assistant in the diagnostic radiology comput-

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Dr. Harmon H. Davis, II, whose primary appointment is with the Department of Medicine, has been appointed an instructor in the Division of Nuclear Medicine. Born in Denver, Colorado, Dr. Davis received his B.A. in Psychology from Yale University and his M.D. from the University of Utah School of Medicine. He completed his residency in internal medicine and a pulmonary fellowship at Barnes Hospital.

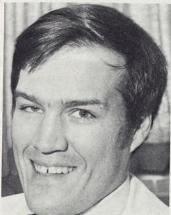
Dr. Davis is an associate member of the American Thoracic Society and an affiliate member of the American College of Surgeons. His wife, Claire Reese Davis, is a projects architect with Peters, Koblenz, and Kreischman and they have a daughter, Gwendolyn Elizabeth, age 3. The Davises' enjoyment of the outdoors is reflected in their mutual hobbies of backpacking, camping, racquetball, gardening and haut seat equitation (highly stylized form of English

riding).

Dr. Miljenko V. Pilepich has joined the Institute's staff as an assistant professor of radiology in the Division of Radiation Oncology. Prior to coming to St. Louis, he was a member of the therapeutic radiology staff at Tufts-New England Medical Center in Boston. Born in Yugoslavia, he received his M.D. degree from the University of Zagreb and served his internship at the Greater Baltimore Medical Center and the first two years of his residency at the University of Maryland Hospital in Baltimore. Dr. Pilepich's hobbies are photography and sailing and his wife's (Dragica) special interest is computers.

Dr. John Morris Bedwinek is an assistant professor of radiology in the Division of Radiation Oncology. Before joining the staff of MIR, he was director of the Division of Radiation Therapy at the Medical Center Hospital of Vermont in Burlington. Dr. Bedwinek is a member of Phi Beta Kappa and received his B.A. in biology from Oberlin University and his M.D. from Columbia University. He served his residency in radiation therapy at the Dartmouth-Hitchcock Medical Center in Hanover, New Hampshire and completed his post-graduate medical training at M.D. Anderson Hospital and Tumor Institute in Houston. Dr. Bedwinek enjoys sailing and playing squash.

Dr. Joseph R. Simpson was appointed to the Institute's staff as an assistant professor of radiology in the Division of Radiation Oncology, following the completion of a residency in radiation oncology at the University of Wisconsin Hospitals. A native of Cincinnati, Ohio, Dr. Simpson received the Ph.D. degree from the University of Chicago and the M.D. degree from Harvard University. Dr. Simpson's family includes his wife, Eleanor, a sociologist, and two sons, Joseph, 9, and Michael, 7. His hobbies are running, tennis, and coin-collecting.



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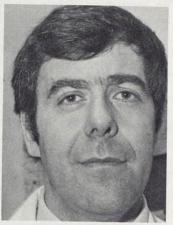
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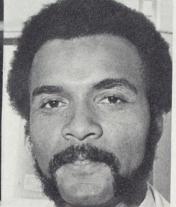
Dr. Harmon H. Davis, II



Dr. Miljenko Pilepich



Dr. John Bedwinek



Dr. Joseph Simpson

**Dr. Naris Rujanevech** completed a residency in radiology at MIR and will obtain an additional year of experience as a fellow in the Institute's section of neuroradiology.

Dr. Robert J. Baglan has been named to fill a Clinical Fellowship awarded by the Board of Directors of the American Cancer Society to Washington University for the period July 1, 1978 to June 30, 1979.

## Focus on Fellows

Dr. Robin H. Yu has been appointed as a fellow in the section of neuroradiology following a residency in diagnostic radiology at the Mercy Hospital and Medical Center in Chicago. Born in the Phillipines, Dr. Yu holds the B.S. and M.D. degrees from the Far Eastern University in Manila. Dr. Yu enjoys hiking, photography, and classical music.



Dr. Robin H. Yu

Dr. Fernando R. Gutierrez

Dr. Fernando R. Gutierrez joined the staff as a fellow in radiology for training and experience in neuroradiology, following a residency in radiology at the University of Puerto Rico School of Medicine in San Juan. Born in Cuba, Dr. Gutierrez received the M.D. degree from Valladolid University in Spain. His wife, Ivonne, is an obstetrician at Lutheran Hospital and their family includes an 11 year old son, Pito, and a 2 year old daughter, Ivy.



Dr. Shing Erh Yen

Dr. Shing Erh Yen has been appointed as a postdoctoral fellow in Cancer Biology in Radiation Oncology. A native of Taiwan, Dr. Yen received his Ph.D. in Microbiology and Immunology in 1977. Dr. and Mrs. Yen (Mei-Hua) have a 3 year old son, Benjamin.

#### Off Staff

Dr. Philip Shalen completed a two-year fellowship in neuroradiology at MIR and is now practicing neuroradiology at Boone County Hospital in Columbia. Missouri.

Dr. Glen Reeves is serving a tour of duty with the United States Air Force and is stationed at Kessler

AFB on the Mississippi Gulf Coast.

Dr. Ramesh Patel has accepted a position as assistant professor of radiology on the staff at St. Louis University and will do general radiology at the Cochran Veterans Administration Hospital in St. Louis.

Dr. Gaellan McIlmoyle resigned from her position as an assistant professor in the Division of Nuclear Medicine to enter a residency in psychiatry at Renard Hospital at Washington University Medical School.

Dr. Stuart Jones completed a two-year residency in nuclear medicine and has entered private practice

in Allentown, Pennsylvania.

Dr. Arthur J. Nussbaum completed a diagnostic radiology residency at MIR and has joined a private practice radiology group in Nashville, Tennessee.

Dr. Palmer Steward (Cancer Biology Section) has joined the staff of the Radiology Department, Medical and Health Physics, at the Veterans Administration Hospital in St. Louis.

Dr. Andrew Tievsky completed a diagnostic radiology residency at MIR on June 30, 1978 and then entered private practice with his father, Dr. George Tievsky in Washington, D.C. He also plans to be active on the clinical faculty of George Washington University.

Dr. T. K. Youssef has resigned from his duties as an instructor of clinical radiology to devote full-time

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to his private practice in Harrisburg, Illinois.

Dr. Stephen Burrows, after completing a four-year residency at MIR, has joined a hospital based radiology practice at Mercy Hospital in Urbana, Illinois where he will do general radiology.

**Dr. Subhash Sharma** has joined the staff of the University of Minnesota Hospitals as an assistant professor-medical physicist in the Therapeutic Radiol-

ogy Department.

#### Alumni News

**Dr. Jeannie Kinzie** ('71) has been promoted to the rank of Associate Professor of Radiology at the University of Chicago, effective July 1, 1978.

#### The Director's Luncheon



Back row, left to right, Drs. Odrezin, Kenney, Yu, Machefsky, Silverman, Varesko, Gutierrez. Seated, Mullenger, Vannier, Kopen, Evens, Cintron, Thaler, Engelstad.

# CONTINUING EDUCATION

# CURRENT CONCEPTS in MUSCULOSKELETAL RADIOLOGY and ORTHOPEDICS

24.5 Hours in Category 1 of the PRA of the AMA presented by . . .

THE MUSCULOSKELETAL SECTION OF THE EDWARD MALLINCKRODT INSTITUTE OF RADIOLOGY

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M/S SOUTHWARD visiting unique Caribbean Ports CANCUN and COZUMEL in the Mexican Yucatan, GRAND CAYMAN ISLAND, a British Commonwealth island, OCHO RIOS, Jamaica, and an exotic OUT ISLAND PORT.

April 28 - May 5, 1979

The object of this symposium is to review current diagnostic and treatment concepts of various musculoskeletal problems. The course is designed to help bridge the knowledge of radiologists and orthopedic surgeons through illustration of normal and abnormal anatomy. Ample time is provided for audience participation and demonstration of case material.

#### **GUEST FACULTY**

Murray K. Dalinka, M.D. Professor of Radiology University of Pennsylvania Philadelphia, Pennsylvania Frieda Feldman, M.D. Professor of Radiology Columbia University New York, New York Harry K. Genant, M.D. Associate Professor of Radiology

University of California San Francisco, California

Jeremy J. Kaye, M.D. Associate Professor of Radiology Vanderbilt University Nashville, Tennessee Herbert Kaufer, M.D. Professor of Surgery (Orthopedics) University of Michigan Ann Arbor, Michigan

Michael J. Pitt, M.D. Associate Professor of Radiology University of Arizona Tucson, Arizona

Donald Resnick, M.D. Associate Professor of Radiology University of California Chief, Department of Radiology Veterans Administration Hospital San Diego, California

#### WASHINGTON UNIVERSITY FACULTY

Louis A. Gilula, M.D. Associate Professor of Radiology Mallinckrodt Institute of Radiology William A. Murphy, M.D. Assistant Professor of Radiology Mallinckrodt Institute of Radiology

Leo A. Whiteside, M.D.

Chief

Division Orthopedic Surgery

Registration Fee: \$200.00

For information contact:

Lee J. Kirkland

Group Travel Services, Inc.

3537 Broadway

Kansas City, Missouri 64111

#### CT Seminar

A Computed Tomography Seminar co-sponsored by the American Society of Radiologic Technologists and Mallinckrodt Institute of Radiology will be held at the Breckenridge Pavilion Hotel November 2-3. ECE Points will be given for all appropriate activities.

Program speakers will share their expertise on the physics of reconstructive tomography, clinical and technical applications of this diagnostic modality, and the utilization and economics of head and body CT. The Mallinckrodt Institute faculty will include Drs. Ronald G. Evens, Christopher Moran, Gilbert Jost, Stuart Sagel and Robert Stanley; John Eichling, Ph.D.; and technologists Gary Brink and Judy Cortner.

#### Techno Info

Harriet Davis, R.T., has been appointed Clinical Coordinator in the Mallinckrodt School of X-Ray Technology. She will supervise the clinical instructors for each of the diagnostic sections in the Institute.

Debbie Davis, R.T., has been appointed assistant technical supervisor of Queeny Tower.

"It is exciting that we now have the technical capabilities to perform high quality TMJ arthrograms."

Roger Adams, D.M.D., M.S.

The Temporomandibular Joint (TMJ) Dysfunction Syndrome is a perplexing problem for the clinician. Patients with joint pain and decreased motion of the jaw are often labeled with the tag, "TMJ Dysfunction Syndrome," whereas it is very likely that this is many diseases in one package. Still a poorly understood area of medicine, a large variety of physicians of different specialties — dentists, oral surgeons, plastic surgeons, otolaryngologists, rheumatologists and others — manage diseases of the TMJ. Although relatively common, particularly in females, treatment in the past has been based largely on empirical observations.

It seems logical that radiography should provide the clinician with documentation of TMJ pathology. However, because the joint is very small and hidden among all the other bones of the skull, it has been hard to isolate the joint radiographically. Many of the standard views fail to accurately image the TMJ and thus are difficult for the radiologist to interpret.

The Microfocus Magnification Unit uses an electron gun similar to a television set to focus the electrons producing a focal spot of near optimal characteristics. The focal spot is 90 microns compared to 300 microns, generally considered a small focal spot. Made by Radiological Sciences, Inc. (R.S.I.) of California, a subdivision of Pfizer Medical, the portable unit is used for fine detail views of bones, particularly in the diagnosis of arthritis, fractures, osteomyelitis, and metabolic bone disease as well as other areas of the body such as interstitial lung disease.

"Recognizing the potential of the Microfocus machine led us to utilize it for the study of the TMJ",

said Dr. Murphy.

The next step was to solve the problem of patient positioning. The three physicians worked together with Jean Barbier, design engineer, to design a positioning board for adaptation to the Magnification Unit which could enable the technical staff to accurately position the patient for the lateral view of the TMJ and to consistently obtain an image free of other structures. The device also provides a means by which the patient can be examined with accuracy on follow-up visits.

During this period, a thorough laboratory study was conducted comparing very slow detail film screen combinations and very fast rare earth combinations

# MALLINCKRODT TEAM DEVELOPS

With the intent to improve the diagnostic imaging of the TMJ, a team of physicians at Mallinckrodt Institute, Roger Adams, D.M.D., M.S., Louis Gilula, M.D., and William Murphy, M.D., have collaborated their collective expertise in dentistry, pathology, and radiology. For nearly one year they have developed their idea of utilizing the Institute's Microfocus Magnification Unit for the examination of the temporomandibular joint.

"We have taken both the problem of accurate imaging and that of interpretation", said Dr. Murphy, "and tried to solve them with one examination, a

reproducible magnified image."

provided by 3M Corporation. A protocol was established that reduced the radiation exposure to the patient while maintaining diagnostic detail.

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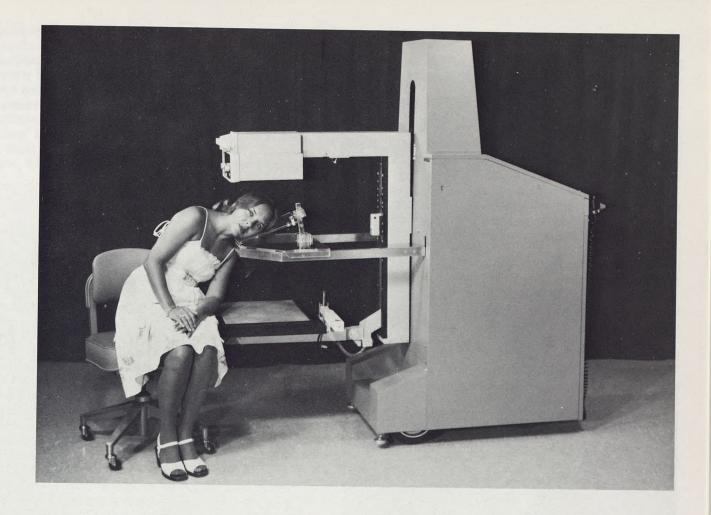
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"The application of the magnification principles to the TMJ have opened new avenues for TMJ evaluation", said Dr. Adams. "Now that the TMJ is easily and readily visible, it is possible to improve the radiologic interpretation. Detailed anatomy is seen as never before. Furthermore, we can now perform arthrographic procedures and delineate the important soft tissue structures of the TMJ."

While completing development of the imaging system consisting of the Microfocus Magnification



# TMJ ARTHROGRAPHY

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Unit, the positioning device, and the film screen combinations for both standard film and arthrograms of the TMJ, the team developed a background of anatomic information concerning the TMJ through dissections and other basic anatomic studies. "We now hope to develop a large clinical experience through physicians' referrals of patients with multiple TMJ problems for study with the system", said Dr. Adans. "Our long range goal, added Dr. Murphy, "is to gain a better understanding of TMJ diseases with the hope of separating the various subcatagories so that therapy can be more specifically designed for each disease."

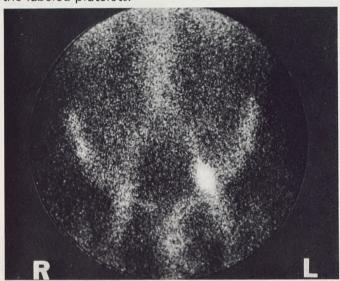
"It is exciting" said Dr. Adams, "that we now have the technical capability to perform high quality TMJ arthrograms. During pre-clinical testing we have shown the promise of this procedure for future diagnosis." Mallinckrodt is one of the few if not the only institution doing research in this area and the three physicians estimate that patient arthrograms will be performed within the next few months.

The work has been funded by a Washington University Biomedical Research Support Grant as well as by seed money from Pfizer, Inc. The team's progress thus far will be presented as a paper and shown as a display at the RSNA.

# New Test For Vascular Disease

The June 3rd issue of **The Lancet** contained a report authored by Harmon H. Davis, W. Andrew Heaton, Barry A. Siegel, Carla J. Mathias, J. Heinrich Joist, Laurence A. Sherman, and Michael J. Welch entitled "Scintigraphic Detection of Atherosclerotic Lesions and Venous Thrombi in Man by Indium-111-labeled Autologous Platelets". In this report, the group describes the initial studies in patients utilizing platelets labeled with the radionuclide indium-111. These labeled platelets have been used to allow scintigraphic detection of carotid-artery plaques, lower extremity venous thrombosis, and renal-vein thrombosis.

In the procedure, platelets are separated from a sample of the patient's blood and labeled with the indium radionuclide which has a half-life of 2.8 days. The labeling procedure takes 90 minutes and the labeled platelets are then reinfused into the patient. The sites of platelet accumulation in the patients studied were visualized 4-24 hours after reinjection of the labeled platelets.



Anterior image of pelvis obtained 21 hours after injection of 111 In-labeled platelets demonstrates intensely increased activity in left iliofemoral venous thrombus.

Platelets are important in the development and growth of arterial thrombi and atherosclerosis and they also participate in the process of venous thrombosis. This is confirmed by the finding in this study that 111In-labeled platelets accumulated in venous thrombi, as well as on atherosclerotic plaques, to a

degree sufficient for scintigraphic detection of these lesions. They also found that 111 In-labeled platelets accumulated in vascular lesions despite anticoagulant or antiplatelet drug therapy. In the article the authors suggest that 111 In-labeled platelets may be clinically useful for detecting arterial and venous diseases.

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# Diagnosing Heart Disease

Thallium exercise stress testing is a new noninvasive technique for the diagnosis of ischemic heart disease and other forms of heart disease in which myocardial perfusion defects may be demonstrated after exercise.

According to Drs. Barry A. Siegel, Director of the Division of Nuclear Medicine and Daniel R. Biello, Assistant Professor of Radiology, this diagnostic test combines the sensitivity of the treadmill ECG test with that of scintigraphic imaging of the heart with thallium-201 after exercise, and may be especially useful for evaluation of patients with obstructive coronary artery disease, coronary spasm, coronary artery bypass grafting, and certain valvular lesions. "The test is particularly useful in patients with resting electrocardiographic abnormalities which generally preclude definitive interpretation of the treadmill exercise stress test alone," said Dr. Siegel.

exercise stress test alone," said Dr. Siegel.

Provided jointly by Mallinckrodt's Division of Nuclear Medicine and the Heart Station (Cardiac Diagnostics Laboratory) of Barnes Hospital the test involves graded exercise with a bicycle ergometer during continuous physiologic and electrocardiographic monitoring. At the conclusion of exercise as determined from heart rate, ischemic ECG changes, or anginal symptoms, thallium-201 is injected intravenously and multiple myocardial perfusion images are then obtained. If focal myocardial perfusion defects are noted on the initial images, a second set of images is obtained beginning approximately three hours after radiopharmaceutical administration. Stress-induced ischemia is diagnosed if immediate images show focal defects which are not apparent on delayed, redistribution images. According to Dr. Biello, this test is most useful in improving diagnostic certainty and in selection of patients for coronary angiography if it is employed in patients with chest pain of uncertain etiology.

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# 1978 Gridiron Proceeds Donated

The Advertising Federation of St. Louis, Inc. has presented \$18,500 in proceeds from their 44th annual Gridiron show to Mallinckrodt Institute at Barnard Free Skin and Cancer Hospital for a highly sophisticated small computer system for the Division of Nuclear Medicine. The Mallinckrodt facility is one of the most advanced in the country and Dr. Ronald G. Evens, Elizabeth Mallinckrodt Professor and Direc-

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tor of the Institute explained improvements the computer offers. Mrs. Marjorie Longo, General Chairman of the 1978 AFSL Gridiron, made the presentation to Bud Meissner, Board Chairman of Barnard Hospital. This amount brings the AFSL total donations to Cancer Research to over \$400,000. Mr. and Mrs. Marlin Perkins are Co-Chairmen of the 1978-79 Cancer Fund Drive.



From left, Bud Meissner, Marjorie Longo, Marlin Perkins, Dr. Ronald Evens, Irma Strzelec, AFSL President, Mrs. Perkins.

#### AMA Meeting

The following Mallinckrodt Institute faculty members participated in the scientific program of the American Medical Association Annual Meeting in St. Louis, June 17-21: Drs. Ronald Evens, Barry Siegel, Robert Stanley, Leland Melson, Daniel Biello and Christopher Moran gave the postgraduate course entitled "Noninvasive Diagnostic Imaging in Patient Management"; Drs. Stuart Sagel, Gilbert Jost, and

Barry Siegel were guest speakers for a refresher course on Chest Radiology; Dr. Carlos Perez presented the following papers at the AMA Genitourinary Conference: "Radiation Therapy in the Treatment of Carcinoma of the Prostate", "Principles of Radiation Therapy", and "Radiation Therapy in the Treatment of Carcinoma of the Urinary Bladder"; Dr. Ronald Evens presented a lecture on "New Developments in CAT Scanning" at a General Session of the AMA.

#### Foreign Lectures

Dr. Stuart Sagel will deliver a series of lectures on Chest Radiology and CT at the Asian Pacific Radiology Conference in Hong Kong, China, Dec. 16-30. He will tour medical centers in Red China following the meeting.

**Dr. Robert Stanley** has been invited to tour and lecture at the four major medical center hospitals of Israel in November, 1978. He will be traveling with Drs. Roy Filly and Henry Goldberg from the University of California, San Francisco.

Dr. Stuart Sagel will speak on Computed Tomography at the 4th Annual Italian Radiology Symposium to be held in Rome, Italy, Sept. 24-29.

Dr. Carlos A. Perez attended the Mexican Radiological Society Meeting in Mexico City, April 30-May 5 and presented the following papers: "Radiotherapy in the Management of Soft Tissue Sarcomas", "Role of Radiotherapy in the Treatment of Bone Sarcomas", "Comparison of Preoperative Radiation and Hysterectomy with Radiation Therapy Alone in Treatment of Stage I and IIA Carcinoma of the Uterine Cervix", and "Irradiation in the Management of Patients with Stage IIB, III and IV Carcinoma of the Uterine Cervix".

#### Honored

Alexander Nakeff, Ph.D., of the Division of Radiation Oncology, has received the NIH Research Career Development Award from the National Heart, Lung, and Blood Institute, Department of Health, Education and Welfare.

The purpose of the award is to foster the development of young scientists with outstanding research potential for careers of independent research in the sciences related to health. The duration of the award is for a period of five years.

#### Visiting Professor

The noon conference on Wednesday, July 12, was given by Hugh M. Saxton, F.R.C.P., F.R.C.R., Consultant Radiologist, Guy's Hospital, London, England, former Editor of the British Journal of Radiology, and currently Visiting Professor, Johns Hopkins Hospital, Baltimore. Dr. Saxton's topic was "Vascular Lesions Affecting the Upper Urinary Tract".

# NEWS

# Tribute to Juan

The Mallinckrodt Institute of Radiology and the Washington University Medical School will pay tribute to Dr. Juan M. Taveras, the third Director of Mallinckrodt, by commissioning his portrait to be permanently displayed at the Institute and establishing an endowment to support future research and

training in the field of Neuroradiology.

During his tenure as Director (1965 to 1971), Dr. Taveras was also Head of the Department of Radiology at Washington University School of Medicine and Radiologist-in-Chief at Barnes and Children's Hospital. He came to the Institute from the Neurological Institute of Columbia Presbyterian Medical Center as a recognized leader in the specialty of neuroradiology and soon demonstrated his abilities as a radiologist, teacher, author, and administrator.

Under his direction, the Mallinckrodt Institute of Radiology grew in size and quality. A major expansion of the Institute's research and clinical space was dedicated in 1971; several subspecialties in radiology were organized and developed; the City-Wide Radiology series of lectures began, and many radiologists, scientists, and neuroradiology fellows were trained. Many of his staff and trainees have become leaders in the field of radiology and chairmen of several departments.

At present Dr. Taveras is Radiologist-in-Chief of Massachusetts General Hospital and Professor of Radiology at Harvard University. He has been invited by Dr. Ronald Evens to present the lecture, "The Changing Approaches to the Diagnosis of Cerebral Vascular Lesions" at 5:30 P.M. on November 13, 1978, in Scarpellino Auditorium, which was completed under the leadership of Dr. Taveras. Preceding the lecture his portrait will be dedicated to Washington University. The public is invited to attend.

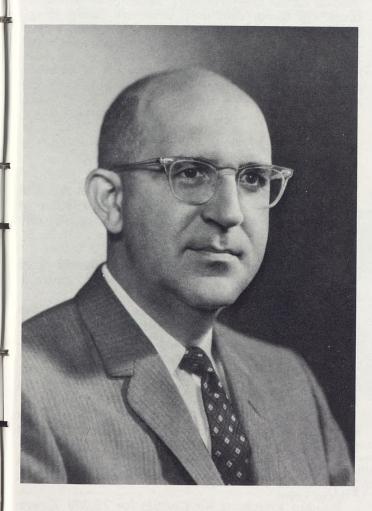
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# UPDATE

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Juan M. Taveras, M.D. Director, Mallinckrodt Institute of Radiology 1965-1971.

#### Open CT Facility

Dr. Moktar Gado, Chief of Neuroradiology, Mallinckrodt Institute of Radiology, Dr. Juan Taveras, Radiologist-in-Chief, Massachusetts General Hospital, and Dr. Norman Chase, Radiologist-in-Chief, New York Medical Center opened the first CT facility at the Catholic University in Santiago, Chile, on August 7 and presented a four-day teaching course on computed tomography to the physicians.

#### International Symposium

Michael J. Welch, Ph.D., Timothy J. Tewson, Ph.D., Sally J. Wagner, M.S., and Gary J. Ehrhardt, Ph.D. attended the Second International Symposium on Radiopharmaceutical Chemistry at St. Catherine's College, Oxford, England, July 3-7. Two papers were presented: "Synthesis and Animal Distribution Studies of 18 F-3-Deoxy-3Fluoro-D-Glucose", Timothy J. Tewson, Michael J. Welch, and Marcus E. Raichle, M.D., and "Applications of Gallium-68 Produced by the Gallium-68 Oxine Generator", Gary Ehrhardt, Sally Wagner, and Michael J. Welch. The third symposium in this series will be in St. Louis in 1980.

#### Elected Officer

Dr. Robert J. Stanley has been elected president of the Greater St. Louis Society of Radiologists for 1978-79 and has been appointed to the Board of Directors of the Missouri State Radiological Society.

Dr. Robert Stanley has been elected to serve as a three year member of the Barnes Hospital Society Council.

#### Program Chairman

Dr. Bruce McClennan served as Scientific Program Chairman, Society of Uroradiology meeting in New York City, Sept. 14-17, and presented a paper on "CT of Testicular Cancer" and a post-graduate course on "Optimal" film sequencing.

#### CT Society

Drs. Robert Stanley and Stuart Sagel and their families attended a meeting of the Society of Computed Body Tomography, August 18-20 at the Lodge of the Four Seasons, Lake Ozark, Missouri. Scientific advancements from the leaders in this new imaging field were presented.

# RADIATION ONCO

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#### Division to Establish Flow Cytometry Facility



by Mary Jo Tillman

One of the biggest obstacles to the study of cell biology today is the difficulty in obtaining pure populations of certain kinds of living cells. Cell biologists do not completely lack techniques to achieve such cell separation; centrifugation and electrophoresis have played a significant role in a number of biological discoveries which were dependent on cell separation. However, as the scientist's knowledge grows, so must the technology which enables him to apply and further extend that knowledge.

Flow cytometry is a recent cell-separation innovation with a vast and as yet unplumbed potential. To date, there are no flow cytometry facilities in the bistate region and the Division of Radiation Oncology proposes to remedy this situation through the purchase of a Bectin and Dickinson FACS IV flow cytometry machine and the construction of a suitable facility in which to house this exciting new equipment. It is expected that various groups and individuals in the region will use the facility through cost-sharing arrangements.

Flow cytometry is based on the ability of certain fluorescent dyes to enter or bind to specific cellular components. After a dye has been introduced into a mixture of cells and allowed to "label" the desired cell population, a laser beam is directed at those cells. The labeled cells emit light, enabling the biologist to

collect only the cells he wants to study. The dyes mithromycin and chromomycin A3, for example, can enter and bind to the nuclei of fixed cells in proportion to the amount of DNA present in the nucleus. Since cells contain different amounts of DNA at different times during the cell cycle, cells can then be grouped according to their position in cell cycle.

This capability has exciting implications for the field of cancer chemotherapy, since many anticancer drugs kill tumor cells only at certain points in cell cycle. At this time, the applications of flow cytometry are nearly limitless; they merely await discovery.

#### Presentations

The following presentations were made at the 20th Annual Meeting of the American Association of Physicists in Medicine, San Francisco, CA, July 30-August 3.

Dose Rates for Brachytherapy Applicators from 137Cs sources. Subhash C. Sharma, Ph.D., Bruce J. Gerbi, M.S., and Hywel Madoc-Jones, M.D.

Effects of Focal Spot Intensity Distribution and Collimator Width in Reconstructive X-ray Tomography. Satish C. Prasad, Ph.D.

Electron Beam Shaped Field Output Factors for Extended Treatment Distances, Myung C. Choi, M.S., Fred G. Abrath, Ph.D., Bruce Gerbi, M.S. and James A. Purdy, Ph.D.

Performance of the PC-12 Artronix Computer in Implant Reconstruction. J. Bello Hiriant, Ph.D., and Subhash C. Sharma, Ph.D.

A Cobalt 60 Total Body Irradiation Dosimetry at 220 cm Source — Axis Distance. Glenn P. Glasgow, Ph.D.

Buildup Effects at Air Cavities for 25 MV X-rays. James A. Purdy, Ph.D. and Fred G. Abrath, Ph.D.

An Operational Computed Tomography Radiotherapy Planning System. Satish C. Prasad, Ph.D., Glenn P. Glasgow, Ph.D. and James A. Purdy, Ph.D.

## NOLOGY NEWS

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Glenn P. Glasgow, Ph.D., and William B. Mill, M.D., presented a workshop sponsored by the Southeastern Cancer Study Group on "Hemi-body and Total Body Irradiation" in Clearwater, Fla., June 2.

Dr. Glenn P. Glasgow attended a workshop on "Total Body Irradiation" sponsored by the Children's Cancer Study Group in Montreal, Quebec, Canada, June 8.

Walter J. Kopecky, Ph.D., attended the Southeast Cancer Study group Workshop Meeting in Atlanta June 15-16 and a symposium on EM Fields in Biological Systems in Ottawa, Canada, June 26-30.

**Dr. Carlos A. Perez** presented: "Randomized Studies of Several Dose and Fractionation Schedules in Non-Oat Cell Carcinoma of the Lung" at the World Conference on Lung Cancer, May 10-12, at Hilton Head, S.C.

James A. Purdy, Ph.D., attended the American Association of Physicists in Medicine-Radiation Therapy Committee Meeting, Bethesda, Md., May 10-11.

James A. Purdy, Ph.D., presented "Computed Tomography in Radiation Therapy Treatment Planning" at the Seventh Varian Users Meeting, San Diego, Ca., June 1-2.

**Dr. James A. Purdy** presented "Computed Tomography in Radiation Therapy" to the Radiation Study Section of the Committee for Radiation Oncology Studies in Washington, D.C., June 13.

Dr. Teresa J. Vietti presented "Intergroup Metastatic Ewing's Sarcoma Study" at the meeting of the American Association for Cancer Research, Washington, D.C. in April.

Students Complete

Ten Week Fellowship

Program



Pictured, left to right, back row are Steve Hunt, Eric B. Staros, Kimberly Alexander, and Dr. Carlos Perez. Front row, Suzanna Von Essen, Neal P. Christiansen, Clay Semenkovich, and Wilfred Ellis. Not pictured are Frederick C. Shaw and Arvey Stone.

The Division of Radiation Oncology has successfully concluded the 1978 summer session coordinated by James E. Marks, M.D., and Carlton C. Stewart,

Ph.D., for the purpose of exposing first year medical students to the clinical and basic science aspects of oncology.

# Technology I

Congratulations, Graduates
Nineteen Graduate from MIR School of Radiologic Technology



Seated, left to right, T. Sokolich, J. Wyatt, J. Sabo, S. West, C. Wilcox, C. Miller, K. Sheffield, M. Caldwell. Second row, D. Robb, M. Panella, Clinical Instructor, M. Butler, S. Sloan, T. Hanson, D. Kelleher, L. Whitfield, P. Jones. Third row, F. Hoff, A. Kahn, J. Traudt, L. Lich, V. Ott, B. Snider, R. Grbac.

## Nuclear Medicine Postgraduates



Left, Daniel Kleypas, R.T. (N.), Christine Lombardo, R.T. (R.) (N.), Samuel So, R.T. (N.) and Leon Williams, Jr. R.T. (R.)

## Radiation Oncology Students Complete Training



Back row, left, Roger Williams, R.T., Pamela Todd, R.T.
Timothy Barnett, R.T. Front row, Susan Meinen, R.T.,
Rhonda Fahey, R.T., Carole Cripe, R.T.

ME.

# Training

Welcome, New Students

Twenty-Four Students Enrolled in MIR School of Radiologic Technology



1st row, left, R. Cattron, M. Zak, B. Venegoni, L. Hoyt, M. Wolter, J. Wilke, and S. Stranquist. 2nd row, M. Lawson, K. Alber, C. Hirstein, K. Hahn, S. Johnson, C. Cole, M. Kavanaugh, P. Johnson, and C. Voss. 3rd row, J. Epplin, M. Albertina, D. Ewing, J. Schwarberg, K. Grinstead, J. Teichgreaber, D. Forquer, and A. Waggoner.

#### Enrolled in Nuclear Medicine Technology



Left, Larry Cullen, Millstadt, IL., Susan Richardson, Bridgton, ME., James Glisch, Milwaukee, WI., Robert Grbac, St. Louis, MO.

### New Radiation Oncology Technology Trainees



Back row, left to right, Patti Oltman, Paul Becker, Tim Sokolich, Kevin Schaub, Jill Quiller. Front row, Mona Weller, Valeria Ott, Kitty Baker.

St. Louis, Missouri 1978-1979

Scarpellino Auditorium, Mallinckrodt Institute of Radiology, 5:30 P.M.

| DATE<br>9/11/78 | TOPIC Investigations in Radiologic Visual Perception                               | SPEAKER B. Gil Brogdon, M.D. Professor of Radiology University of South Alabama, and President, American College of Radiology           | CLINICAL MATERIAL Second Session (7:15-8:30 p.m.) Noah Susman, M.D. Moderator |
|-----------------|--|---|---|
| 10/10/78        | Wendell G. Scott Lecture (4:00 p.m.)   | Donald Fredrickson, M.D.<br>Director, National Institutes of Health   | No second session   |
| 11/13/78        | Lecture to honor Juan M. Taveras,<br>3rd Director of the Mallinckrodt<br>Institute | Juan M. Taveras, M.D. Professor of Radiology Harvard Medical School, and Radiologist-in-Chief Massachusetts General Hospital            | No second session   |
| 12/11/78        | Double Contrast G.I. Examinations  | Robert E. Koehler, M.D.<br>Assistant Professor of Radiology<br>Mallinckrodt Institute of Radiology                                      | Sumner Holtz, M.D.<br>Moderator   |
| 1/8/79          | Ultrasound in Obstetrics & Gynecology  | P. Ruben Koehler, M.D.<br>Professor of Radiology, and<br>Chief of Diagnosis<br>University of Utah                                       | G. Leland Melson, M.D.<br>Moderator   |
| 2/12/79         | Pediatric Radiology  | Gary D. Shackelford, M.D.<br>Associate Professor of Radiology<br>Mallinckrodt Institite of Radiology                                    | Robert Scheible, M.D.<br>Moderator  |
| 3/12/79         | Efficacy Studies in Radiology — The<br>Barium Enema                                | E. James Potchen, M.D.<br>Chairman of Radiology<br>Michigan State University  | Gene L. Davis, M.D.<br>Moderator  |
| 4/9/79          | To be determined   | St. Louis University  | St. Louis University  |
| 5/14/79         | Radiology of the Temporomandibular<br>Joint  | Roger J. Adams, D.M.D., and<br>William A. Murphy, Jr., M.D.<br>Assistant Professors of Radiology<br>Mallinckrodt Institute of Radiology | John Fries, M.D.<br>Moderator   |

# Thanks:



Joan Fingerhut



Mimsy Hebron



Susan Koehler



Barnes Hospital Junior Volunteers contribute 233

hours of service to Mallinckrodt Institute of Radi-

**Scott Kramer** 



**Vicky Croft** 

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#### ONCOLOGY DATA CENTER

#### -- A Multi-faceted Operation

The Oncology Data Center, one of the four sections within the Division of Radiation Oncology, has grown from its modest beginnings ten years ago into a multi-faceted operation providing several kinds

of services and support for the Division.

Delivery of radiation therapy and analysis of treatment effectiveness have become increasingly more complex since the inception of the Division's tumor registry in 1968. This complexity is due to several factors: the growing spectrum of types and qualities of radiation, the use of multi-modality treatment for cancer, improved patient prognosis, and today's better understanding of the natural history of cancer. The Computer Section was established in 1974 under the direction of Dr. Don Ragan to facilitate the analysis of these variables. At this point. the computer sciences were also brought into play in areas of quality control, operational efficiency, and measurement of productivity. By 1977, the Computer Section data handling efforts had expanded to include the Greater St. Louis medical community, warranting the creation of the Oncology Data Center.

The Center has been divided into two groups, each of which is further divided into two subgroups. The Computer Group, headed by Dr. Ragan, utilizes three computers and has developed approximately 2,000 programs which provide either clinical and administrative or information storage and analysis functions

relevant to research.

The Biometry Group, headed by Dr. Jeannette Lee, is responsible for computer-assisted data collection and handling; the staff also collaborates with physicians on clinical study design and analysis. This group has accumulated a data bank of over 18,000 patients, with supplemental data banks containing more detailed information on patients of special interest.

Over the last decade, Radiation Oncology at Washington University has established a strong reputation for the effective utilization of computer support. The survival analysis and statistics packages are easily invoked in an interactive fashion on the data accumulated in the tumor registry and special study systems. This system is a valuable resource as a teaching aid for medical students and residents as well as for formal medical research.



Photo of MODULEX MUMPS System. Dr. Ragan is seated at the console terminal. The data storage modules are to his left.

The Oncology Data Center has 16 employees and occupies 2,500 square feet. It maintains the Radiation Oncology patient record room with over 30,000 patient charts and approximately 2,000 film records. Computer support is provided by a 24-user PC-12 MUMPS system and a 24-user MODULEX MUMPS system.

The Center also provides computer support for St. Luke's Diagnostic Radiology and Radiation Therapy and for the St. Louis Children's Hospital neonatal

registry.

"We anticipate that the Oncology Data Center will continue to grow in the years to come," said Dr. Ragan. "Recently, capabilities initiated on behalf of Radiation Oncology have been made available at a fee-for-service basis to the Greater St. Louis community. Additional areas under development include text editing, dosimetry accumulation, chart library automation, prospective patient studies, patient prognostic studies and quality of care evaluation studies."

# **ASRT**

#### July 14-20

Technologists Judy Cortner, Mike Albertina, Mike Ward, and Joe Di Croce were sponsored by the Institute to attend the Annual Meeting of the American Society of Radiologic Technologists in Anaheim, California. During the coming year they will present to the MIR technologists a series of lectures on Curriculum Design, Competency Based Clinical Education, Motivation and Communication, and X-ray Physics based upon the continuing education symposia they attended.

Armand Diaz, R.T., F.A.S.R.T., Chairman of the Fellow Committee of the ASRT, conducted a series of meetings to review Fellow candidates and to consider policy and by-law changes for the commit-

Gary Brink, R.T., and Judy Cortner, R.T., presented a three hour symposium on "Quality Assurance and Artifacts in Computed Tomography Scanning."

Mike Albertina, R.T., presented an exhibit, "The Diagnostic X-Ray Tube." Sharon Albertina, R.T., also attended the meeting.

## Library Memorial Fund

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## In Memoriam

Margaret Ragan died of cancer on August 14, 1978. She was the wife of Roy Ragan, Carpenter Supervisor of Mallinckrodt Institute. She is survived by her husband (married 41 years) and two daughters, Judy A. Hall and Phyllis J. Lay. The Institute extends deepest sympathy to her family.



You wanta play volleyball?



Whee!



Where's the food?

# Residents' Picnic Memories



I've got it! I've got it!

Photos by Dr. William G. Totty



Who says I look like Walter Matthau?

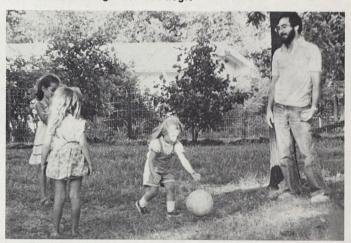


My watch has stopped again.

". .the day was fair, the spirits high. ."



You want hamburgers or hot dogs?



Why do I have to baby-sit?



Let's burn 'em - what do we care?

WENDELL G. SCOTT LECTURE

Scarpellino Auditorium, Mallinckrodt Institute, 4:00 P.M.

October 19-21, 1978

46th ANNUAL MEETING OF MISSOURI SOCIETY OF RADIOLOGIC TECHNOLOGISTS

Joplin, Missouri

October 31-November 4, 1978

AMERICAN SOCIETY OF THERAPEUTIC RADIOLOGISTS

Los Angeles, California

November 2-3, 1978

**CT SEMINAR** 

Breckenridge Pavilion Hotel, St. Louis, Missouri

November 13, 1978

LECTURE TO HONOR JUAN M. TAVERAS, M.D.

Scarpellino Auditorium, Mallinckrodt Institute, 5:30 P.M.

November 26-December 1, 1978

RADIOLOGICAL SOCIETY OF NORTH AMERICA

Chicago, Illinois December 11, 1978

CITY WIDE RADIOLOGY CONFERENCE

Scarpellino Auditorium, Mallinckrodt Institute, 5:30 P.M.



Published quarterly by the Public Relations Department for staff, students, and friends of Mallinckrodt Institute of Radiology, 510 South Kingshighway, St. Louis, Mo. 63110.



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Return Address
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Non-Profit Organization U.S. Postage PAID St. Louis, Missouri

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