

**RUSSELL D. CARMAN, M.D.  
LECTURE SERIES**

**SPONSORED BY THE  
MISSOURI RADIOLOGICAL SOCIETY**



**LECTURE SERIES FOUNDED IN 1941 BY THE  
GREATER ST. LOUIS SOCIETY OF RADIOLOGISTS**

**75th Lecture**

**“Healthcare Economics and Sustainability of  
Radiology” to be delivered by  
Howard B. Fleishon, M.D., MMM, FACR  
Professor – Emory University Department of  
Medical Imaging and Sciences**

**April 9, 2022 at 10 am  
Missouri Radiological Society Spring Meeting**

## **75th Carman Lecturer: Howard B. Fleishon, M.D., MMM, FACR**

Howard B. Fleishon, MD, MMM, FACR is a professor at Emory University Department of Medical Imaging and Sciences. A longtime resident of Arizona, he lived in Atlanta for 5 years before recently moving back to Arizona.

Dr. Fleishon was raised in Philadelphia. After completing a BS in Chemistry at Bates College, where he was elected to Phi Beta Kappa, he attended Temple University Medical School and was elected to AOA. Following a flexible internship at Presbyterian University of Pennsylvania Medical Center, he accepted a radiology residency at Albert Einstein Medical Center in Philadelphia. After residency, he entered private practice with Valley Radiologists, Ltd. (VRL) in Phoenix.

Dr. Fleishon held multiple leadership positions within his practice, eventually becoming the managing partner for Valley Radiologists. During his tenure, the practice grew more than 3-fold from 15 to 55 radiologists, 5 hospitals and 11 offices. In 2008, Dr. Fleishon formed North Mountain Radiology Group (NMRG), a staff model professional organization that serviced a local hospital and community medical staff. The vision included optimizing quality and having radiologists embedded into a network based ACO. NMRG became a founding group in the system's clinically integrated network.

He was also a principal in the 2014 merger to form Southwest Diagnostic Imaging. SDI was the largest independent practice in the southwest at the time of the transaction.

In 2015, Dr. Fleishon joined the staff of Emory University in Atlanta as an associate professor and Division Director of Community Radiology Specialists. He also assumed the responsibilities of Chief of Service at Emory Johns Creek Medical Center Department of Radiology. In 2021, Dr. Fleishon was promoted to full professor.

Dr. Fleishon has been a student of leadership and management in radiology throughout his career. He constantly promotes radiology by radiologists. He feels radiologists should look beyond image interpretation and embrace the responsibility for providing the entire medical imaging paradigm for our patients. In addition, while recognizing the majority of trainees pursue subspecialty training, Dr. Fleishon has been a proponent for the value of broad clinical skills with general radiology and now multi-specialty radiology.

Dr. Fleishon's career with ACR began in 1994. Having served in leadership positions in the Arizona Radiological Society (ARS), he became a member of the ACR Council first as an alternate councilor and then as a councilor. He was elected to the College Nominating Committee and then appointed to the Council Steering Committee. In 2009, he was elected Vice Speaker and then Speaker. In that position, Dr. Fleishon founded the Radiology Advocacy Network (RAN). In recognition of that initiative, the Advocate of the Year Award was named in his honor. Dr. Fleishon was elected to Secretary/Treasurer by the Board of Chancellors in 2015, elected to be Vice Chair in 2018 and then Chair of the Board of

Chancellors in 2020.

He lives with his wife Shawn and their golden retriever, Jake. For recreation, he enjoys golf, skiing, bicycling, pickleball, hiking, fishing, travel and reading. Dr. Fleishon also spends time in winter and summer with friends and family in his alternate home in Colorado.

### **RUSSELL DANIEL CARMAN, M.D.**

Born in 1875, Russell D. Carman was a prominent radiologist whose work at the Mayo Clinic advanced the radiologic diagnosis of gastrointestinal lesions and enhanced the technique of fluoroscopy. One of his most important contributions was his discovery of the “meniscus sign” of ulcerating gastric cancer, which permitted the making of positive differential diagnosis between malignant and nonmalignant lesions.

Carman began his medical studies at the College of Medicine and Surgery at the University of Minnesota. Upon moving to St. Louis he completed his medical studies at the Marion-Sims College of Medicine, receiving his M.D. in 1901. He then pursued graduate studies at Johns Hopkins but in 1902 returned to St. Louis to practice. Initially, he intended to specialize in orthopedics but his natural aptitude for the electrical arts soon attracted him to medical roentgenology, which was then in its early stages of development. Carman worked diligently and enthusiastically to advance with the science and was quickly recognized as an exceedingly proficient radiologist. He was appointed Assistant in Radiology at Saint Louis University in 1907, and three years later he was named Lecturer in Roentgenology at Washington University. In 1913, he joined the staff of the Mayo Clinic as Head of the Section on Roentgenology, and became Professor of Roentgenology at the Mayo Foundation where he continued in that capacity until his death in 1926. In 1922, he was elected president of the Radiological Society of North America and in 1926, he was elected president of the American Roentgen Ray Society.

Carman was a prodigious researcher who achieved technical perfection in this work. One of the most noteworthy facts in Carman's scientific work was his painstaking control of the Roentgen findings, obtained partly by comparing those with the findings at surgery and postmortem examinations. Carman referred to two types of researchers in his paper on “The Future of Radiology”: one group consisting of only scientists and another of “scientist, physician, and inventor combined.” It is undisputed that Carman belonged to the latter group. The goal of his life's work can largely be said to have been a furtherance of a broader knowledge of anatomy, physiology and pathology as related to radiological phenomena and, on the basis of this wider knowledge, a more reliable radiological diagnosis with a consequent greater value to clinical diagnosis. He

was quite clear about the fact that the difficulties encountered by the radiological science on its path forward are not of any particular nature but depend upon problems alike to all specialized branches of medicine. In 1941, the Greater St. Louis Society of Radiologists established a memorial to Carman's radiologic excellence in the Annual Carman Lecture.

## PAST CARMAN LECTURES

Founded and Sponsored by the Greater St. Louis Society of Radiologists

March 25, 1941 First Annual Lecture

BYRL RAYMOND KIRKLIN, M.D., Mayo Clinic, Rochester, Minn.; "Cancer of the Gastrointestinal Tract: Its Early Manifestations"

1942 LEO GEORGE RIGLER, M.D., University of Minnesota School of Medicine, Minneapolis; "Roentgenological Diagnosis of Acute Abdominal States"

1943, 1944, 1945—NO LECTURES

1946 MAURICE LENZ, M.D., Columbia University, New York; "Recent Developments in the Treatment of Carcinoma of the Breast"

1947 EDWARD LEALAND JENKINSON, M.D., Northwestern University School of Medicine, Chicago; "Diaphragmatic Hernias and Lesions of the Diaphragm as a Cause of Cardiac and Gastrointestinal Symptoms"

1948 HARRY MATTHEW WEBER, M.D., Mayo Clinic, Rochester, Minn.; "The Early Diagnosis of Intestinal Cancer"

1949 EUGENE PERCIVAL PENDERGRASS, M.D., Pennsylvania University School of Medicine, Philadelphia; "Some Consideration of the Roentgenographic Findings in Certain Chest Lesions"

1950 URSUS VICTOR PORTMANN, M.D., Cleveland Clinic, Cleveland; "The Present Status of Radiation Therapy of Superficial Malignant Lesions"

1951 EDWARD BLAINE DUNCAN NEUHAUSER, M.D., Harvard Medical School, Boston; "The Relationship of Growth to Disease"

1952 RUSSELL HEDLEY MORGAN, M.D., Johns Hopkins University Medical School, Baltimore; "The Early Diagnosis of Gastric Carcinoma"

1953 CLARENCE ALLEN GOOD JR., M.D., Mayo Clinic, Rochester; "Some Problems in the Roentgenologic Diagnosis of Pulmonary Disease"

1954 ROGER ALLEN HARVEY, M.D., University of Illinois College of Medicine, Chicago "Super Voltage Contributions to Medicine"

1955 PHILIP J. HODES, M.D., University of Pennsylvania School of Medicine, Philadelphia "Unfavorable Reactions to Intravenous Media: Causes and Control"

1956 RICHARD HALL CHAMBERLAIN, M.D., University of Pennsylvania School of Medicine, Philadelphia; "Radioisotopes in Medical Practice"

1957 HENRY SEYMOUR KAPLAN, M.D., Stanford University, San Francisco; "What is the Radiation Hazard in Routine Office Radiology"

1958 BARTON ROGERS YOUNG, M.D., Temple University School of Medicine, Philadelphia; "Diagnosis of the Acute Abdomen"

1959 JUAN ANGEL DEL REGATO, M.D., Penrose Cancer Hospital, Colorado Springs; "The Present Status of Treatment of Carcinoma of the Cervix"

- 1960 BENJAMIN FELSON, M.D., University of Cincinnati School of Medicine, Cincinnati; "Fundamentals of Chest Roentgenology"
- 1961 GILBERT HUNGERFORD FLETCHER, M.D., Anderson Hospital, Houston; "High Dose Whole Pelvic Technique in Squamous Cell Carcinoma of the Cervix"
- 1962 HAROLD O. PETERSON, M.D., University of Minnesota School of Medicine, Minneapolis; "Myelograph"
- 1963 HAROLD GORDON JACOBSON, M.D., New York University School of Medicine, New York; "Abnormalities of the Spine"
- 1964 JOHN F. HOLT JR., M.D., University of Michigan School of Medicine, Ann Arbor; "Radiologic Aspects of Respiratory Diseases in Infants and Children"
- 1965 VINCENT P. COLLINS, M.D., Baylor University, Houston; "Medicine and the Law"
- 1966 ROBERT L. EGAN, M.D., Emory University, Atlanta; "Mammography"
- 1967 MANUEL VIAMONTE JR., M.D., University of Miami School of Medicine, Miami; "Potpourri of Angiographic Examinations"
- 1968 HARRY WILLIAM FISCHER, M.D., University of Michigan, Ann Arbor; "Radiology of the Biliary System and Liver Cholecystography and Beyond"
- 1969 WALTER EVAN BERDON, M.D., Columbia University, New York; "Changing Concepts of Urinary Tract Disease in Children"
- 1970 LEONARD OTTO LANGER JR., M.D., University of Minnesota, Minneapolis; "Radiological Diagnosis of the Generalized Bone Dysplasias"
- 1971 JOHN SCOTT DUNBAR, M.D., University of British Columbia Faculty of Medicine, Vancouver, B.C., Canada; "Pulmonary Disease in the Newborn"
- 1972 HOWARD L. STEINBACH, M.D., University of California — San Francisco, Stanford University School of Medicine, San Francisco; "Differential Diagnosis of Rheumatoid Arthritis and Some Related Arthritides"
- 1973 ELIAS PAUL GEORGE THEROS, M.D., Armed Forces Institute of Pathology, Washington; "Renal Osteodystrophy: Some Mechanisms and Correlations"
- 1974 MASON SONES, M.D., Cleveland Clinic, Cleveland; "Angiographic Assessment of Coronary Atherosclerosis and Evaluation of Surgical Treatment"
- 1975 HERBERT LEROY ABRAMS, M.D., Harvard Medical School, Boston; "Dissecting Aortic Aneurysm: A Diagnostic and Therapeutic Problem"
- 1976 THOMAS FRANCIS MEANEY, M.D., Cleveland Clinic, Cleveland; "The Place of Whole Body Computed Tomography and Diagnostic Radiology"

- 1977 PATRICK F. SHEEDY II, M.D., Mayo Clinic, Rochester; "Extra Cranial Computerized Tomography"
- 1978 GEORGE ROBERT LEOPOLD, M.D., University of California, San Diego; "New Areas for Ultrasonography: Small Parts Scanning"
- 1979 WILLIAM B. SEAMAN, M.D., Columbia University, New York; "Pathologic Physiology of the Esophagus"
- 1980 PHILIP OTIS ALDERSON, M.D., College of Physicians and Surgeons, Columbia University, New York; "Nuclear Cardiology"
- 1981 ARCH WALLACE TEMPLETON, M.D., University of Kansas Medical Center, Kansas City; "Digital Diagnostic Image Information Data: How Much? When? Where? At What Cost?"
- 1982 DAVID E. SCHWARTEN, M.D., St. Vincent Hospital, Head, Cardiovascular Library, Indianapolis; "Percutaneous Transluminal Angioplasty"
- 1983 RONALD G. EVENS, M.D., Washington University School of Medicine, St. Louis; "Radiology 1984: Big Brother, Big Business, Big Technology, Big Change"
- 1984 HOWARD M. POLLACK, M.D., University of Pennsylvania School of Medicine, Philadelphia; "Non-surgical Removal of Urinary Calculi"
- 1985 R. EDWARD COLEMAN, M.D., Duke University Medical Center, Durham; "Diagnostic and Prognostic Information from Cardiovascular Imaging"
- 1986 WILLIAM G. BRADLEY, M.D., Ph.D., Huntington Medical Research Institutes, Pasadena; "Flow Phenomena in MRI"
- 1987 BARRY B. GOLDBERG, M.D., Thomas Jefferson University Hospital, Philadelphia; "A Look into the Future of Ultrasound"
- 1988 STANLEY S. SIEGELMAN, M.D., Johns Hopkins University School of Medicine and Johns Hopkins Hospital, Baltimore; "TURF Battles: Ethical Issues"
- 1989 STUART SAGEL, M.D., Washington University, School of Medicine, St. Louis; "Portable Digital Radiography"
- 1990 HERMAN D. SUIT, M.D., D.Phil. (Oxon.), Harvard Medical School, Boston; "Radiology in Cancer: Precision in Diagnosis, Precision in Therapy"
- 1991 ROBERT JOSEPH STANLEY, M.D., University of Alabama School of Medicine, Birmingham; "The Radiologic Evaluation of the Acute Abdomen"
- 1992 MARC J. HOMER, M.D., Tufts University School of Medicine, Boston; "Malpractice and Mammography"
- 1993 JOSEPH K.T. LEE, M.D., University of North Carolina School of Medicine, Chapel Hill, NC; "Current Status of Abdominal MRI"

- 1994 CARLOS A. PEREZ, M.D., Washington University School of Medicine, St. Louis; "Carcinoma of the Prostate: A Challenge for Diagnostic Imaging And Radiation Oncology"
- 1995 WILLIAM MCALISTER, M.D., Washington University School of Medicine, St. Louis; "Sinusitis in Children"
- 1996 DANIEL H. JOHNSON JR., M.D., President, American Medical Association; "Put the Patient in the Driver's Seat"
- 1997 KAY HERZOG VYDARENY, M.D., Emory University Hospital, Atlanta; "Pulmonary Manifestations of AIDS"
- 1998 BARRY A. SIEGEL, M.D., Mallinckrodt Institute of Radiology, St. Louis; "The Emerging Role of PET in the Management of Patients with Cancer"
- 1999 PAUL H. YOUNG, M.D., Microsurgery and Brain Research Institute, St. Louis University School of Medicine, St. Louis; "Important Blood Vessels in Brain and Spinal Cord Stroke—a 3-D Perspective"
- 2000 JACQUES E. DION, M.D., Emory University Hospital, Atlanta; "Percutaneous Vertebroplasty: A New Therapy for Painful Vertebral Compression Fractures"
- 2001 ELLIOT K. FISHMAN, M.D., Johns Hopkins University School of Medicine, Baltimore; "3D CT Angiography and 3D Imaging: Current Applications in Clinical Practice"
- 2002 G. SCOTT GAZELLE, M.D., M.P.H., Ph.D., Harvard Medical School, Boston; "Screening for Disease with Computed Tomography"
- 2003 JACQUELINE CAROL BRUNETTI, M.D., Columbia University College of Physicians & Surgeons, New York; "Functional-Anatomic Imaging: Application in Oncology"
- 2004 STEVEN E. HARMS, M.D., F.A.C.R., University of Arkansas for Medical Sciences, Little Rock; "Clinical Uses of Breast MRI"
- 2005 ALBERT L. BLUMBERG, M.D., F.A.C.R., Greater Baltimore Medical Center, Baltimore, "American College of Radiology - Advocacy Update"
- 2006 THOMAS PTAK, M.D. Ph.D., Massachusetts General Hospital, Boston; "MDCT Imaging in Multiple Trauma"
- 2007 GREGORY R. SABOEIRO, M.D., Hospital for Special Surgery, New York, "Musculoskeletal Ultrasound & Ultrasound-Guided Therapeutic Interventions"
- 2008 TERESE I. KASKE, M.D. Radiology Imaging Associates, Denver, Colorado, "Diagnostic Breast Ultrasound and Biopsy"
- 2009 PAMELA K. WOODARD, MD, President, North American Society for Cardiovascular Imaging & Associate Professor at MIR, "Advances in Cardiac CT & Coronary CT Angiography"
- 2010 ERIC TREFELNER, MD Co-founder NightShift Radiology, "Teleradiology or TeleTerror? Strategies to Manage Risks and Opportunities"



- 2011 HUGH CURTIN, MD, FACR, Massachusetts Eye & Ear Infirmary, Harvard University, "Imaging of the Temporal Bone"
- 2012 LYNNE S. STEINBACH, MD, FACR, University of California-San Francisco, Professor Clinical Radiology & Orthopaedic Surgery, "MR Arthrography"
- 2013 SANJEEV BHALLA, MD, Section Chief, Cardiothoracic Imaging Section, Mallinckrodt Institute of Radiology, "Understand the Use of HRCT in the Diagnosis of Diffuse Lung Disease"
- 2014 MAURICIO CASTILLO, MD, FACR, Section Chief and Professor of Neuroradiology, University of North Carolina – Chapel Hill, Past President American Society of Neuroradiology, "White Matter Diseases In Adults"

### **Missouri Radiological Society**

- 2016 JAMES H. THRALL, MD, FACR, Chairman Emeritus, Department of Radiology, Massachusetts General Hospital, "Reinventing Radiology in the Digital Age."
- 2018 RICHARD GUNDERMAN, MD, PhD, FACR, Chancellor's Professor of Radiology, Pediatrics, Medical Education, Philosophy, Liberal Arts, Philanthropy, and Medical Humanities and Health Studies, Indiana University Department of Radiology, "Cultivating Great Leaders"
- 2021 FRANK J. LEXA, MD, MBA, FACR, Professor and Vice Chair-Faculty Affairs, Department of Radiology, University of Pittsburgh and UPMC International, "Corporatization in US Radiology"
- 2022 HOWARD B. FLEISHON, MD, MMM, FACR, Professor, Emory University Department of Medical Imaging and Sciences, "Healthcare Economics and Sustainability of Radiology"