Robert Lenkinski, PhD
Professor of Radiology
Charles A. and Elizabeth Ann Sanders Chair in Translational Research, Jan and Bob Pickens Distinguished Professorship in Medical Science, in Memory of Jerry Knight Rymer and Annette Brannon Rymer and Mr. and Mrs. W.L. Pickens

Undergraduate Program, Chemistry: University of Toronto, Canada
Graduate Program, System Administration, Chemistry: University of Houston

Interests, Research: One of Dr. Lenkinski’s major research interests is in clinical applications of in vivo Magnetic Resonance Imaging and Spectroscopy. He is also developing in vivo multinuclear MRI methods, primarily Na-23. A more recent area of interest has been molecular imaging, which involves the development of novel MR and optical-based imaging contrast.

Elena Vinogradov, PhD
Assistant Professor of Radiology
Advanced Imaging Research Center

Graduate Program, Chemical Physics: Weizmann Institute of Science, Rehovot, Israel
Post-doctoral Program, Radiology: Beth Israel Deaconess Medical Center and Harvard Medical School, Boston

Interests, Research: Novel MRI Contrast Methods and Agents, Endogenous Contrast, Relaxation and Exchange, and Sodium Imaging

Dr. Vinogradov’s research interest is focused on the development and translation of novel contrast methods for MRI. Specifically, she is focused on developing MRI methods that are based on the intrinsic biochemical processes and physical properties of tissues. Currently, her main area of research is chemical exchange saturation transfer (CEST) contrast and its translation to clinical applications in cancer and other diseases.

Ananth Madhuranthakam, PhD
Assistant Professor of Radiology
Advanced Imaging Research Center

Graduate Program, Biomedical Engineering: Mayo Clinic College of Medicine, Rochester, Minnesota

Interests, Research: Arterial Spin Labeling (ASL), Non-Contrast MR Angiography/Pertfusion, Whole-Body Cancer Screening and Staging, and MR Pulse Sequence Development.

Dr. Madhuranthakam’s research interests focus on the development of novel techniques to improve the clinical utility of MRI. His laboratory specializes in understanding and applying MR physics to exploit the variations in human anatomy and physiology to develop these novel techniques. A primary area of research involves non-contrast perfusion imaging using arterial spin labeling (ASL) applied to brain, kidneys and lungs. Another area of research includes structural and ventilation imaging of the lungs using ultra-short echo time (UTE) and whole-body MRI techniques for cancer screening and staging. He works closely with radiologists in evaluating and translating these novel techniques rapidly into clinical practice.

Qing Yuan, PhD
Assistant Professor of Radiology

Graduate Program, Bioengineering: University of Pennsylvania, Philadelphia
Post-doctoral Program, Radiology: University of Pennsylvania, Philadelphia
Post-doctoral Program, Imaging Physics: The University of Texas MD Anderson Cancer Center, Houston

Interests, Research and Clinical: Application of Advanced MRI and MRS Techniques in Clinical Studies, Quantitative Multiparametric MRI Imaging for Cancer Research, Fat Quantification Using MRI and MRS, and Iron Overload

Dr. Yuan’s research focus is to develop quantitative methods for dynamic contrast enhancement, diffusion, and Oxygen-enhanced MRI. She works closely with radiologists, fellows, and technologists to improve clinical MRI protocols.

The one-year Magnetic Resonance Imaging (MRI) fellowship at UT Southwestern features intensive involvement in clinical and research MRI, with an emphasis on chest, abdomen, pelvis, and vascular MRI. This training program is intended to prepare fellows for a successful career in either academic or private practice, and to become a driving force in promoting advanced MRI in their practice. Fellows are involved in all aspects of this comprehensive clinical body MRI service, under the supervision of the five MRI fellowship-trained attending physicians. Specific strengths of the body MRI section include hepatobiliary and pancreatic imaging, colorectal cancer staging, renal cancer imaging, prostate imaging, staging of gynecologic malignancies, female pelvic/dynamic pelvic floor imaging, MRI of the bowel, and MR angiography/venography. The fellowship focuses on achieving a deep understanding of the basic principles of MRI and protocol development with a “hands-on” approach. A close working relationship with the dedicated MR scientists in the Department of Radiology and the Advanced Imaging Research Center (AIRC) enhances the experience. In addition to their clinical activities, fellows are trained in basic MR principles, research methodology, manuscript preparation, and other activities essential to both an academic career and an objective interpretation of current literature and clinical guidelines. These efforts are supplemented by weekly body MRI case conferences, regularly scheduled journal club, MRI protocol development meetings, multiple interdisciplinary conferences, and a dedicated six-month long MRI physics course taught by MR scientists and clinical attending physicians. Fellows are provided dedicated academic time to pursue their academic interests under direct supervision of the Body MRI faculty.

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Harvard Medical School, Boston
and quantitative MRI of the body. Developing new imaging strategies for more robust, physiologic, resistance to antiangiogenic therapies in patients with metastatic tumor perfusion in vivo as an indicator of initial and acquired.

These efforts are also directed to understand MRI measures of tumors and MRI measures of vascularity in vivo that correlate to diagnose kidney cancer and monitor treatment response.

Dr. Pedrosa’s NIH-funded translational research program focuses on implementing novel MRI techniques to improve the ability for Physiologic Assessment of Abdominal/Pelvic Disease, and Interests, Research:

- Fellowship, Trauma/Emergency Radiology: Jackson Memorial Medical Center/Pryder Trauma Center, University of Miami School of Medicine, Miami
- Fellowship, Body MRI: Beth Israel Deaconess Medical Center, Harvard Medical School, Boston
- Interests, Research: Kidney Cancer, Novel MRI Techniques for Physiologic Assessment of Abdominal/Pelvic Disease, and Pancreas and Biliary Disease

Dr. Pedrosa’s NIH-funded translational research program focuses on implementing novel MRI techniques to improve the ability to diagnose kidney cancer and monitor treatment response. These efforts include the phenotypic characterization of renal tumors and MRI measures of vascularity in vivo that correlate to histopathologic and genetic measures of angiogenesis. These efforts are also directed to understand MRI measures of tumor perfusion in vivo as an indicator of initial and acquired resistance to antiangiogenic therapies in patients with metastatic kidney cancer. In his role as Chief of MRI, he is also interested in developing new imaging strategies for more robust, physiologic, and quantitative MRI of the body.

Vice Chairman of Clinical Operations
John Leyendecker, MD
Professor of Radiology
Residency: Emory University, Atlanta
Fellowship, Vascular & Interventional Radiology: Wilford Hall Medical Center, San Antonio
Fellowship, MRI: Washington University, Mallinckrodt Institute of Radiology, St. Louis
Interests, Research: Renal Cell Carcinoma and Cohn’s Disease.

Dr. Leyendecker is an expert in abdominal imaging and interventions. He serves as Vice-Chairman of Clinical Operations and as a member of the Abdominal Imaging division in the Radiology Department. He has served on numerous committees of the RSNA, SIR, ACR, ABR, and ACRN related to MRI and Gastrointestinal and Gastrointestinal Imaging. He has co-authored two textbooks on the topics of abdominal imaging and MRI and is currently the Igor Laufer Visiting Professor for the Society of Abdominal Radiology.

Chairman, Department of Radiology
Neil M. Rosfjord, MD, FACR, FISMVR, FSCBTMR
Professor of Radiology
Co-Director, Advanced Imaging Research Center
Ellie and Wofford Cain Distinguished Chair in Diagnostic Imaging
Residency: New York University Medical Center, New York
Fellowship, Nuclear Medicine: University of Utah Medical Center, Salt Lake City
Fellowship, Abdominal: New York University Medical Center
Fellowship, MRI: New York University Medical Center
Interests, Research: MRI/USKA Techniques for Body Imaging, Prostate Disorders, Particularly Cancer, and Radiology-Pathology Correlations

Dr. Rosfjord concentrates his research on translating innovations in MR imaging and spectroscopy into clinical practice. His current studies emphasize developing MRI techniques to improve detection and evaluation of prostate cancer and to better guide treatment. As chairman of Radiology, he also leads efforts to bring the benefits of new technologies developed at the Advanced Imaging Research Center rapidly into clinical practice.

Fellowship Director
Ivan Pedrosa, MD, FSCBTMR
Chief of MRI, Associate Professor of Radiology
Advanced Imaging Research Center
Jack Reynolds, MD, Chair in Radiology
Residency: Hospital Clinico San Carlos University Complutense, Madrid, Spain
Fellowship, Trauma/Emergency Radiology: Jackson Memorial Medical Center/Pryder Trauma Center, University of Miami School of Medicine, Miami
Fellowship, Body MRI: Beth Israel Deaconess Medical Center, Harvard Medical School, Boston
Interests, Research: Kidney Cancer, Novel MRI Techniques for Physiologic Assessment of Abdominal/Pelvic Disease, and Pancreas and Biliary Disease

Dr. Pedrosa's NIH-funded translational research program focuses on implementing novel MRI techniques to improve the ability to diagnose kidney cancer and monitor treatment response. These efforts include the phenotypic characterization of renal tumors and MRI measures of vascularity in vivo that correlate to histopathologic and genetic measures of angiogenesis. These efforts are also directed to understand MRI measures of tumor perfusion in vivo as an indicator of initial and acquired resistance to antiangiogenic therapies in patients with metastatic kidney cancer. In his role as Chief of MRI, he is also interested in developing new imaging strategies for more robust, physiologic, and quantitative MRI of the body.

Fellowship Co-Director
Gaurav Khatri, MD
Assistant Professor of Radiology
Residency: NSLIHs-North Shore University Hospital, Manhasset, New York
Fellowship, MRI/Abdominal Imaging: Northwestern University Feinberg School of Medicine, Chicago
Interests, Research and Clinical: Hepatobiliary MRI, MR Dceography, MRI of Pelvic Floor Mesh, MR Enterography, and Gastrointestinal Oncology.

Dr. Khatri’s interest in hepatobiliary MRI stems from his fellowship work in liver MRI, as well as his current association with clinicians as part of the Hepatocellular Carcinoma and GI Malignancy disease-oriented teams. He helped launch the MR Enterography and MR Dceography programs at UT Southwestern and continues to work with clinicians and the body MRI faculty to research and improve MR imaging techniques and applications in those areas.

Daniel Costa, MD
Assistant Professor of Radiology
Advanced Imaging Research Center
Residency: University of Sao Paulo, Brazil
Fellowship, Abdominal Imaging: University of Sao Paulo, Brazil
Fellowship, Body MRI: Beth Israel Deaconess Medical Center, Boston
Interests, Research: Prostate Cancer
Dr. Costa is an abdominal imaging radiologist with expertise in prostate cancer imaging. Specific areas of interest include the role of multiparametric MR imaging in the early detection and characterization of prostate cancer; MRI-ultrasound targeted fusion biopsy of the prostate; registration of histopathologic images with in vivo MRI data; and MRI-guided prostate cancer focal therapy.

Takeshi Yokoo, MD, PhD
Assistant Professor of Radiology
Advanced Imaging Research Center
Residency: University of California at San Diego
Fellowship, Abdominal Imaging and Intervention: Massachusetts General Hospital
Graduate Program, Biomathematics: Mount Sinai School of Medicine, New York
Interests, Research and Clinical: MR Imaging, Spectroscopy, and Physics; Quantitative and computational Imaging, Liver Imaging and Contrast Media
Dr. Yokoo is an abdominal radiologist with interest and expertise in liver MR and image analysis/processing. His main research focus is on the development and validation of emerging quantitative MR imaging techniques, such as liver fat, iron, fibrosis, and inflammation.

Vasanth Vasan, MD
Assistant Professor of Radiology
Residency: Georgetown University Hospital, Washington
Fellowship, Body Imaging: The Johns Hopkins Hospital, Baltimore
Interests, Research and Clinical: Gastrointestinal Tract Pathology
Dr. Vasan is an abdominal imager who she helped develop the CT enterography and CT colonography programs at UT Southwestern. Specific interests include inflammatory bowel diseases and development of minimal prep CT colonography.

April Bailey, MD
Assistant Professor of Radiology
Assistant Professor of Obstetrics & Gynecology
Residency: The University of Texas Southwestern Medical Center, Dallas
Fellowship, Women’s Imaging: The University of Texas Southwestern Medical Center
Interests, Research: MRI of the Female Pelvis, Fetal Imaging/ Abnormal Placenta, MR-HIFU, Fibroids, and Gynecologic Oncology
Dr. Bailey specializes in imaging of the gravid and nongravid female pelvis. Her practice is largely MRI and ultrasound-based, allowing a unique understanding of fetal MRI and abnormal placentations. With expertise in uterine fibroids, she is the treating physician for MR-HIFU. In addition to being gynecology, she is a primary imaging collaborator with radiation oncology and gynecologic oncology with current research in cervical cancer, sarcopenia, leiomyosarcoma and nodal metastases.

David Fetzer, MD
Assistant Professor of Radiology
Residency: University of Pittsburgh Medical Center
Fellowship, Abdominal Imaging: University of Pittsburgh Medical Center
Interests, Research: Quantitative and Computational Imaging, Multidetector Imaging, Hepatic Fibrosis Quantification, and the Effects of Motion and Physiologic Processes on Quantitative Techniques
Dr. Fetzer’s complementary background in the imaging sciences and interest in translational research constitute a foundation for his work in multimodality comparison and quantification, particularly in hepatobiliary, pancreatic, and thyroid imaging.

Lakshmi Ananthakrishnan, MD
Assistant Professor of Radiology
Residency: Cleveland Clinic Foundation
Fellowship, Body Imaging: Northwestern University Feinberg School of Medicine, Chicago
Interests, Research: Liver and Renal Imaging, and Spectral CT
Dr. Ananthakrishnan is an abdominal radiologist with a variety of interests in both CT and MRI. Her research is mainly in spectral CT applications, with a focus on renal imaging.