

## Poster Presentations

### Basic Science

- 1 **Katherine Brown, M.S.**  
Kenneth Hoyt, Ph.D., M.B.A., FAIUM  
*Iodine Maps Generated from Novel Detection Based Spectral CT Scanner Correlate with Measured Attenuation Differences*
- 2 **Bingbing Chen, Ph.D.**  
Rajiv Chopra, Ph.D.  
*Development of a Prototype Clinical Device for Biofilm Eradication Using Alternating Magnetic Fields*
- 3 **Elizabeth Davenport, Ph.D.**  
Joseph Maldjian, M.D.  
*MEG Measured Delta Waves Increase After Concussion*
- 4 **Ayse "Ece" Ercan, Ph.D.**  
Elena Vinogradov, Ph.D.  
*3D Steady-State Inhomogeneous Magnetization Transfer (ihMT) Gradient Echo Sequence for Spinal Cord Imaging at 3T*
- 5 **Joshua Greer, B.S.**  
Ananth Madhuranthakam, Ph.D.  
*Robust Non-contrast Perfusion Imaging of Whole-Lungs Using Multi-Slice FAIR at 3T*
- 6 **James Holcomb, B.S.A.**  
Joseph Maldjian, M.D.  
*Diffusion Tensor Imaging Abnormalities Related to Head Impact Exposure in a Season of Youth Football*
- 7 **Parastoo Sabaeifard, Ph.D.**  
Caroline de Gracia Lux, Ph.D.  
Robert Mattrey, M.D.  
*Non-viral CAR T-Cell Immunotherapy of Acute Lymphoblastic Leukemia Using MB-Based Ultrasound Gene Delivery*
- 8 **Reshu Saini, Ph.D.**  
Rajiv Chopra, Ph.D.  
*Eradication of Biofilm on Infected Metal Implants Using AMF: Understanding the Response of Bacteria to Heat*
- 9 **Xinzeng Wang, M.S.**  
Ananth Madhuranthakam, Ph.D.  
*Diffusion-Weighted Imaging with Uniform Fat Suppression Using a Modified Dixon-Based Single Shot Turbo Spin Echo*
- 10 **Annie Yang, B.S.**  
Jacques Lux, Ph.D.  
Robert Mattrey, M.D.  
*Improving Efficacy and Safety of Amino Acid Depletion Therapy for Acute Lymphoblastic Leukemia Using Encapsulated Enzymes in Silica Nanoparticles*
- 11 **Ning Zhou, Ph.D.**  
Xiankai Sun, Ph.D.  
*Imaging Glioblastomas via a Voltage-Dependent Potassium Channel with an 18F-Labelled 4-Aminopyridine Derivative*

### Clinical

- 12 **Muhammad Aziz, M.D.**  
Daniel Costa, M.D.  
*Prospective Inclusion of Apparent Diffusion Coefficients in Multiparametric Prostate MRI Structured Reports: Added Value for Discrimination of Clinically Insignificant and Significant Prostate Cancer*
- 13 **Muhammad Aziz, M.D.**  
Daniel Costa, M.D.  
*Detection of Clinically Significant Prostate Cancer in Men with Previous Negative MRI-TRUS Fusion Targeted Biopsy*
- 14 **Quyên Do, Ph.D.**  
Robert Lenkinski, Ph.D.  
*Textural Analysis of the Morbidly Adherent Placenta (MAP) from MR Acquisitions*
- 15 **Durgesh Dwivedi, Ph.D.**  
Ivan Pedrosa, M.D., Ph.D.  
*Characterization of Renal Masses Using Arterial Spin Labeled MR Imaging*
- 16 **Ali Pirasteh, M.D.**  
Ivan Pedrosa, M.D., Ph.D.  
*MultiVane Diffusion-Weighted Imaging for Multiparametric Prostate Magnetic Resonance Imaging in Men with Hip Implants*
- 17 **Chayanit Sasiponganan, B.S.**  
Avneesh Chhabra, M.D.  
*Sub-acromial Impingement Anatomy and Its Bearing on Rotator Cuff Pathology in Women: Radiographs Versus MRI Correlation*
- 18 **Natalie Schauwecker, M.D.**  
Avneesh Chhabra, M.D.  
*Quantifying Differences in Femoral Head and Neck Asphericity in the Common Hip Conditions of Femoroacetabular Impingement and Hip Instability Versus Controls Using Radial 3DCT Imaging and Volumetric Segmentation*
- 19 **Natalie Schauwecker, M.D.**  
Avneesh Chhabra, M.D.  
*Quantifying Differences in Regional Muscle CT Parameters in the Common Hip Conditions of Femoroacetabular Impingement and Hip Instability Versus Controls*

### Educational

- 20 **Richard Ahn, M.D.**  
Shellie Josephs, M.D.  
*The "Stuck" Catheter: What to Do When the Catheter Won't Come Out*
- 21 **Jesse Conyers, M.D.**  
Sachin Saboo, M.D.  
*Imaging Features of Leadless Cardiovascular Devices*
- 22 **Heather Early, M.D.**  
Julie Champine, M.D.  
*Assessing Call Preparedness for First Year Radiology Residents*

## Poster Presentations

- 23 **Kamlesh Jobanputra, M.D.**  
Takeshi Yokoo, M.D., Ph.D.  
*LI-RADS Treatment Response Criteria*

- 24 **Praveen Ranganath, M.D.**  
Dana Mathews, M.D., Ph.D.  
Asha Kandathil, M.D.  
*Creating Goals and Objectives for Radiology Residency Rotations: A Guideline*

### Educational Research

- 25 **Samantha Castillo, M.D.**  
Benjamin White, M.D.  
Daniella Pinho, M.D.  
*Reevaluating Residency Evaluations*

### Quality

- 26 **Miranda Gleason, M.D.**  
Jeannie Kwon, M.D.  
Jessica Porembka, M.D.  
*Decreasing Duration of Diagnostic Mammogram Appointments at the Parkland Comprehensive Breast Center*

- 27 **Joseph McDevitt, M.D.**  
Mark Reddick, M.D.  
Travis Browning, M.D.  
Eric Zeikus, M.D.  
*Improving Turnaround Time for Mediport Placement at Parkland Hospital*

- 28 **S. Lainey Schmidt, M.D.**  
Jeannie Kwon, M.D.  
Kate Louise Mangona, M.D.  
*Implementation of ICU Teleradiology Patient Care Rounds*

- 29 **Kelly Tornow, M.D.**  
Daniel Moore, M.D.  
Avneesh Chhabra, M.D.  
*Reducing the Number of Knee MRIs in Patients with Severe Degenerative Changes*

## Electronic Poster Presentations

### Basic Science

- 1 **Jingyu Chen, Ph.D.**  
Li Liu, Ph.D.  
*Evaluation of Combretastatin A-4 Phosphate Activity for Lung Cancer by Multimodality Imaging*

- 2 **James Holcomb, B.S.A.**  
Joseph Maldjian, M.D.  
*NODDI by Nature: Neurite Orientation and Density Changes as a Response to Football Head Impact Exposure*

- 3 **M. Hassan Jahandish, M.S.**  
Kenneth Hoyt, Ph.D., M.B.A., FAIUM  
*An Ultrasound-Based Approach for Real-Time Guided Lower-Extremity Assistive Device Control: Preliminary Results from Able-Bodied Humans*

- 4 **Mawia Khairalseed, Ph.D.**  
Kenneth Hoyt, Ph.D., M.B.A., FAIUM  
*Real-Time H-Scan Ultrasound Imaging – A New Tissue Characterization Method for Measurement of Relative Scatterer Size*

- 5 **Devin O'Kelly, B.S.**  
Ralph Mason, Ph.D.  
*Tomographic Breathing Detection: An Image-Driven Approach to Physiological Monitoring*

- 6 **Donghan Yang, Ph.D.**  
Ralph Mason, Ph.D.  
*Unique Tumor Response to Hypoxic Gas Breathing Revealed by Oxygen-Sensitive MRI*

- 7 **Heling Zhou, Ph.D.**  
Ralph Mason, Ph.D.  
*The Effect of Flow Suppression on BOLD MRI of Lung Tumor*

### Clinical

- 8 **Daniel Gorsage, M.D.**  
Tim Booth, M.D.  
Matthew Hammer, M.D.  
*Evaluation of the Normal Cochlear R2 Angle and Depth on 3D T2-Weighted Images: A Tool for the Diagnosis of Scala Communis and Incomplete Partition Type II*

- 9 **Udayan Srivastava, M.D.**  
Avneesh Chhabra, M.D.  
Parham Pezeshk, M.D.  
*Patient Satisfaction Outcomes after CT-Guided and In-Office Bone Marrow Biopsy*

- 10 **Kevin Yan, B.A.**  
Avneesh Chhabra, M.D.  
*Does 3DMR Provide Equivalent Information as 3DCT for the Pre-operative Evaluation of Adult Hip Pain Conditions of Femoroacetabular Impingement and Hip Dysplasia?*

UTSouthwestern  
Medical Center

Department of  
RADIOLOGY

RESEARCH  
DAY

Tuesday, May 1, 1–5 p.m.

Pickens Medical Education & Conference Center  
NG3.112

## Program Schedule

1:00 pm Oral Presentations

### Introduction & Welcome Robert E. Lenkinski, Ph.D.

1:00 pm Professor, Vice Chair of Research  
M. Craig Morriss, M.D.  
Professor, Director of the Radiology Residency Program

### Xinzeng Wang, M.S.

1:10 pm Ananth Madhuranthakam, Ph.D.  
Whole-Body MRI for Metastatic Cancer Detection Using T2-  
Weighted Imaging with Fat and Fluid Suppression

### Qi Wang, M.S.

1:20 pm Rajiv Chopra, Ph.D.  
Real-Time Confocal Microscopy of Biofilm on Metals Exposed to  
Alternating Magnetic Field (AMF) and Antibiotics

### Ayse “Ece” Ercan, Ph.D.

1:30 pm Elena Vinogradov, Ph.D.  
Validation of ihMT Imaging and Preliminary Results on Multiple  
Sclerosis

### Yuxiao Qian, B.S.

1:40 pm Julia Fielding, M.D., FACR  
Improved Liver Segmentation and Volumetry with Spectral  
Detector CT and MADplot

### Joshua Greer, B.S.

1:50 pm Ananth Madhuranthakam, Ph.D.  
Caval Blood Flow Distribution in Fontan Circulation: Comparison  
between ASL-Measured Pulmonary Perfusion and 4D Flow

2:00 pm Break (Light Refreshments & Poster Viewing)

## Program Schedule

### Anish Narayanan, B.S.

3:00 pm Avneesh Chhabra, M.D.  
Density Analysis of Spontaneous Lower Extremity Fractures  
Using 3D Computed Tomography: A Case-Control Study

### Shu Zhang, M.S.

3:10 pm Elena Vinogradov, Ph.D.  
CEST-Dixon for Human Breast Lesion Characterization at 3T: A  
Preliminary Study

### Ali Pirasteh, M.D.

3:20 pm Takeshi Yokoo, M.D., Ph.D.  
Inter-Method Reproducibility of Biexponential R2 Magnetic  
Resonance Relaxometry for Estimation of Liver Iron  
Concentration

### Ryan Fisicaro, M.D.

3:30 pm Joseph Maldjian, M.D.  
Head Impact Exposure and Diffusion Kurtosis in the Cerebral  
Peduncle After a Season of High School Football

### Yee Seng Ng, Ph.D.

3:40 pm Takeshi Yokoo, M.D., Ph.D.  
Template-Matching Method for Liver Proton-Density Fat Fraction  
Determination by Multiecho Gradient-Echo MR Imaging

3:50 pm Break

### Keynote Address

Promoting Innovation Within Your Team: Pragmatic Pearls for  
Pragmatic People

### Thomas M. Grist, M.D., FACR

Professor and Chair of Radiology  
University of Wisconsin School of Medicine and Public Health

### Closing Remarks

5:00 pm Neil M. Rofsky, M.D., FACR  
Professor and Chair

## 1–4 p.m. Oral Presentations & Posters

Clinical and Pre-Clinical Research Studies in Radiology  
Presented By  
Fellows, Residents, Postdoctoral Trainees,  
and Graduate Students of the  
Department of Radiology

## 4–5 p.m. Keynote Address



Presented by  
**Thomas M. Grist, M.D., FACR**

Professor and Chair of Radiology  
University of Wisconsin School of Medicine  
and Public Health

## Promoting Innovation Within Your Team: Pragmatic Pearls for Pragmatic People

**Course Directors:** Robert E. Lenkinski, Ph.D., and M. Craig Morriss, M.D.

**Overview:** Forty-nine presentations (10 oral and 39 posters) will be given by mentored trainees in the Department of Radiology. These presentations will cover a variety of basic science topics, a number of prospective, retrospective, and translational studies carried out in the Department of Radiology. These presentations will provide concrete examples of experimental design, statistical analysis and hypothesis-driven research. Trainee talks will be followed by a keynote lecture.

**Target Audience:** Faculty, Fellows, Residents, and Support Staff

**Educational Objectives:**

1. Describe how to create an organizational culture that encourages innovation in Radiology
2. Assess the historical high impact of imaging research and the importance of inventions in Radiology
3. Describe how contemporary rules and regulations affect the opportunities and challenges for academic-industrial partnerships in imaging innovation

**Educational Method:** Didactic Lecture and Case Presentation

**Accreditation:** The University of Texas Southwestern Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

**Credit Designation:** The University of Texas Southwestern Medical Center designates this live activity for a maximum of 2.75 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Conflict of Interest:** All persons in the position to control the content of an education activity are required to disclose all relevant financial relationships in any amount occurring within the past 12 months with any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on patients. A primary mechanism to resolve identified conflicts of interest is a content review that is prior to the activity.

**Off-Label Uses:** Because this course is meant to educate physicians with what is currently in use and what may be available in the future, there may be “off-label” use discussed in the presentation. Speakers have been requested to inform the audience when off-label use is discussed.