



XXVIII Annual Symposium & Training

Venue: T. Boone Pickens Biomedical Building Auditorium, NG 3.112, 6001 Forest Park Rd, Dallas, TX 75235

Tuesday, 04 June 2024

08:30am Breakfast 08:30am Anke Henning, Ph.D., UTSW Welcome & Introduction PET/MRI 08:45am Georges El Fakhri, Ph.D., Yale University PET/MR Molecular Imaging: From Technology to Pathophysiology 09:20am Fernando Boada, Ph.D., Stanford University MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pathophysiology 10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW Bioalchemy and a Tax Collector's Approach to Metabolism	
Welcome & Introduction PET/MRI 08:45am Georges El Fakhri, Ph.D., Yale University PET/MR Molecular Imaging: From Technology to Pathophysiology 09:20am Fernando Boada, Ph.D., Stanford University MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pa 10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
O8:45am Georges El Fakhri, Ph.D., Yale University PET/MR Molecular Imaging: From Technology to Pathophysiology O9:20am Fernando Boada, Ph.D., Stanford University MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pathoria Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI O1:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI O2:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models O2:50pm Break O3:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes O3:20pm Shawn Burgess, Ph.D., UTSW	
PET/MR Molecular Imaging: From Technology to Pathophysiology 09:20am Fernando Boada, Ph.D., Stanford University MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pa 10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes	
09:20am Fernando Boada, Ph.D., Stanford University MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pa 10:30am Break Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
09:55am MR/PET Opportunities for Improving Workflow, Accuracy and Ser Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pat 10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang, Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	gy
O9:55am Greg Zaharchuk, M.D., Ph.D., Stanford University PET/MRI > PET + MRI: How to Use Both Modalities to Improve Pa 10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI O1:40pm Nian Wang, Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI O2:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models O2:50pm Break O3:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes O3:20pm Shawn Burgess, Ph.D., UTSW	
10:30am Break 10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	ensitivity
10:45am Martin Pomper, M.D., Ph.D., UTSW Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	atient Care
Theranostics: Journey and Outlook 11:20am Proffered Oral Presentations (1-4) 12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
12:10pm Lunch and Facility Tour Pre-Clinical MRI 01:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
Pre-Clinical MRI 01:40pm Nian Wang, Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
O1:40pm Nian Wang. Ph.D., UTSW Brain Connectivity and Microstructure by High-resolution MRI O2:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models O2:50pm Break O3:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes O3:20pm Shawn Burgess, Ph.D., UTSW	
Brain Connectivity and Microstructure by High-resolution MRI 02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
02:15pm Natalie Serkova, Ph.D., University of Colorado High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
High-Resolution MRI and Cell Size Imaging for Treatment Plannin in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
in Pediatric Brain Tumor Models 02:50pm Break 03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	
03:05pm Power pitches (1-3) NMR Metabolomics with labelled isotopes 03:20pm Shawn Burgess, Ph.D., UTSW	ing
NMR Metabolomics with labelled isotopes O3:20pm Shawn Burgess, Ph.D., UTSW	
03:20pm Shawn Burgess, Ph.D., UTSW	
Bioalchemy and a Tax Collector's Approach to Metabolism	
03:55pm Eunsook Jin, Ph.D., UTSW	
Exploring Metabolic Dysregulation using 13C NMR in Clinical Research	search
04:30pm Poster Session and Reception	

Advanced Imaging Research Center

UTSouthwestern

XXVIII Annual Symposium & Training

Venue: T. Boone Pickens Biomedical Building Auditorium, NG 3.112, 6001 Forest Park Rd, Dallas, TX 75235

Wednesday, 05 June 2024

08:00am Breakfast

Human Ultra-high field MRI/Neuroimaging

High resolution neurovascular imaging at 7T

08:30am Danny Wang, Ph.D., University of Southern California

09:05am Hanzhang Lu, Ph.D., Johns Hopkins University

Non-contrast MR imaging of blood-brain barrier permeability to water

09:40am Anke Henning, Ph.D., UTSW

Ultra-high field structural and metabolic MRI of the human brain at 7T and 9.4T

10:15am

Luca Vizioli, Ph.D., University of Minnesota 10:30am

What can we learn about the human brain using high field fMRI?

11:05am Power pitches (4-6)

11:20am Proffered Oral Presentations (5-8)

Lunch 12:10pm

Pre-Clinical fMRI

01:10pm Shella Keilholz, Ph.D., Emory University and Georgia Institute of Technology

The organization of intrinsic brain activity

01:45pm Nan Li, Ph.D., UTSW

Genetically targeted MRI by manipulating hemodynamics

02:30pm

Hyperpolarized Magnetic Resonance for In-vivo Imaging

02:45pm Stefan Gloeggler, Ph.D., Max Planck Institute

New magnetic resonance tools to investigate metabolism

Jae Mo Park, Ph.D., UTSW 03:20pm

Imaging OXPHOS and Gluconeogenesis using Dissolution DNP

03:55pm **Poster Awards** 04:30pm Adjourn