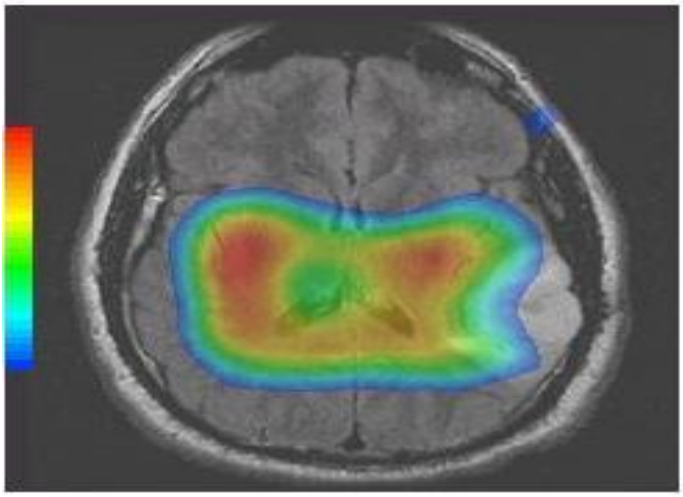
Symposium and Training XI:
New Concepts in Metabolic Imaging Agents: MR, PET, & Fluorescence



Thursday, April 10, 2003

Presented by
The Mary Nell and Ralph B. Rogers
Magnetic Resonance Center
and
The National Center for Research Resources in association with

UT SOUTHWESTERN MEDICAL CENTER

Program Objective

The goal of the NIH-funded Research Resource at UT Southwestern is to develop novel NMR technologies for measuring and understanding intermediary metabolism *in vivo*. One major emphasis is to use ^{2}H and ^{13}C as metabolic tracers and modern NMR methodologies to unravel the complexities of multi-organ metabolism in animals and humans and this has been the subject of our annual Spring symposium each of the past ten years. A second component of the RR is to develop novel imaging agents that respond to metabolism *in vivo*. Given the widespread interest in molecular imaging tools for *in vivo* detection of biological events, we decided that a symposium limited to novel Metabolic Imaging agents would be timely and educational.

This year's program is aimed at basic researchers and clinical investigators with interest in imaging agents that can report on metabolism. Although the emphasis this year will be on MR and PET imaging agents, many of the principles are the same for other diagnostic modalities. The morning session will review the principles governing Gd^{3} -based MRI agents, introduce the concept of paramagnetic CEST agents and discuss potential applications, and end with talks from two established leaders in development of responsive MR agents. The afternoon session will focus on current and future agents for positron emission tomography (PET) in animals and humans.

Guest Speakers

John W. Babich, PhD, President, Chief Scientific Officer and Director, Biostream, Inc Boston, Massachusetts.

Robert E. Lenkinski, PhD, Professor of Radiology, Harvard Medical School, Boston, Massachusetts.

Thomas J. Meade, PhD, Professor, Chemistry, Biochemistry, Molecular Biology, and Cell Biology, Neurobiology and Physiology, Ohio State University, Evanston, Illinois.

Eva M. Sevick-Muraca, PhD, Professor of Chemical Engineering, Director, Photon Migration Laboratory, Texas A&M University, College Station, Texas.

Robert Weisskoff, PhD, Vice President of Business Development and Head of Imaging, EPIX Medical, Boston, Massachusetts.

Michael J. Welch, PhD, Professor of Radiology, Washington University, St. Louis, Missouri.

UT Southwestern Speakers

Craig R. Malloy, MD, Professor of Radiology and Internal Medicine, UT Southwestern Medical Center.

Dana Mathews, MD, PhD Associate Professor of Radiology, UT Southwestern Medical Center.

Matthew E. Merritt, PhD, Senior Research Scientist, Department of Radiology, UT Southwestern Medical Center.

Dean Sherry, PhD, Professor of Radiology, UT Southwestern Medical Center and Professor of Chemistry, The University of Texas at Dallas.

Shanrong Zang, PhD, Research Scientist, Department of Radiology, UT Southwestern Medical Center.

Program Schedule

8:00 a.m.	**On-Site Registration - North Campus** Continental Breakfast
8:45 a.m.	**Overview of Responsive MRI Agents** Dean Sherry, PhD
9:30 a.m.	**Experimental Aspects of PARACEST Agents** Shanrong Zhang, PhD
9:55 a.m.	**Theoretical Aspects of PARACEST Agents** Matthew E. Merritt, PhD
10:15 a.m.	**Break**
10:45 a.m.	**Agents for Metabolic Imaging of Fibrin** Robert Weisskoff, PhD, MBA

11:35 a.m.	**Seeing is Believing** Thomas J. Meade, PhD
12:15 a.m.	**Catered Lunch**
1:30 p.m.	**Overview of Clinical PET** Dana Mathews, MD, PhD
2:15 p.m.	**Metabolic Measurements using PET, From Mouse to Man** Michael J. Welch, PhD
3:00 p.m.	**Discussion / Break**
3:30 p.m.	**Fatty Acid Analogs for PET Imaging** John W. Babich, PhD
4:15 p.m.	**Fluorescence-enhanced Diagnostic Imaging of Cancer** Eva Sevick-Muraca, PhD
5:00 p.m.	**Emergence of Metabolic Imaging as a Research Priority** Robert E. Lenkinski, PhD
5:30 p.m.	**Wine and Cheese Reception at the A. W. Harris Faculty Club** South Campus