

Symposium and Training VIII: **The Liver in Systemic Disorders of Fat and Glucose Oxidation**

Thursday, May 4, 2000

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



Guest Speakers

Richard Bergman, PhD, Physiology and Biophysics, University of Southern California School of Medicine, Los Angeles, California

Gerald Shulman, MD, PhD Professor of Internal Medicine and Cellular and Molecular Physiology, Yale University School of Medicine, New Haven, Connecticut

Alan Saltiel, PhD, Senior Director and Distinguished Research Fellow in Cell Biology, Parke-Davis Pharmaceutical Research, Ann Arbor, Michigan

Maren Laughlin, PhD, Director Metabolism Program, NIDDK, National Institutes of Health, Bethesda, Maryland

UT Southwestern Speakers

Craig Malloy, MD, Professor of Radiology and Internal Medicine, and Director of the Southwestern Biomedical Magnetic Resonance Facility at the Mary Nell and Ralph B. Rogers Magnetic Resonance Center, University of Texas Southwestern Medical Center, Dallas, Texas

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

Mike Solomon, MD, Assistant Professor of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX

F. Mark H. Jeffrey, D.Phil., Assistant Professor of Radiology, University of Texas Southwestern Medical Center, Dallas, Texas

John Jones, DSc, Instructor of Radiology, University of Texas Southwestern Medical Center, Dallas, TX

John Cohen, PhD, Assistant Professor of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, Texas

Program Schedule

Intermediary Metabolism in Humans: Analysis with Stable Isotopes

8:30 a.m. **Teaching Session: Carbon NMR of the Intact Liver Isotopomer analysis focusing on gluconeogenesis and fat oxidation in the liver. Examples from studies in mice, rats, and humans will be used to illustrate the NMR physics and mathematics of the analysis. Craig Malloy, MD, Dean Sherry, PhD, Mike Solomon, MD, F. Mark H. Jeffrey, D.Phil., and John Jones, DSc**

10:45 a.m. **Break**

The Liver in Systemic Disorders of Fat and Glucose Metabolism

11:00 a.m. **Interactions Between Fat and Carbohydrate Metabolism in the Normal Liver**
Richard Bergman, PhD

12:00 a.m. **Catered Lunch**

1:00 p.m. **The Role of Abnormal Liver Metabolism in the Pathogenesis of Type 2 Diabetes**
Gerald Shulman, MD, PhD

2:00 p.m. **Abnormalities of Hepatic Fat Oxidation: Insights from Genetic Models**
John Cohen, PhD

3:00 p.m. **Discussion & Break**

3:15 p.m. **Metabolic Regulation in Insulin Action**
Alan Saltiel, PhD

4:15 p.m. **Molecular Manipulation of Hepatic Pathways**
Christopher B. Newgard, PhD

5:30 p.m. **Reception - A.W. Harris Faculty Club**

6:15 p.m. **Dinner - A.W. Harris Faculty Club**

7:00 p.m. **Directions in Metabolic Research: View from the NIH**
Maren Laughlin, PhD