

Services Offered

Human Clinical Samples

Quantitative Analysis

Phospholipid Analysis (including cardiolipin and monolysocardiolipin molecular species)

- ◆ Isolated Skeletal Muscle Mitochondria

Cardiolipin and Monolysocardiolipin Analysis

- ◆ Skeletal Muscle
- ◆ Skin Fibroblasts

Available Fall 2012!

Quantitative Analysis

Phospholipid Analysis (including cardiolipin and monolysocardiolipin molecular species)

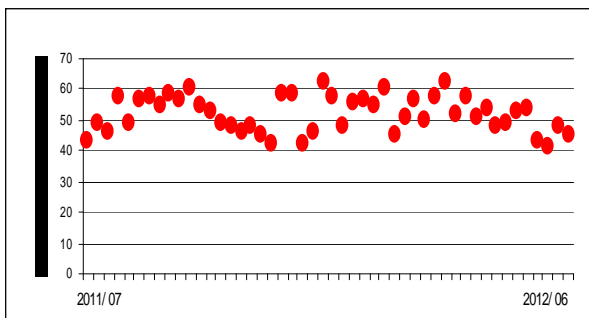
- ◆ Skeletal Muscle (frozen/fresh)
- ◆ Fibroblasts
- ◆ Blood

Team Members

Charles Hoppel, MD
Juhnwan Kim, PhD
Paul Minkler

Quality Control Results for Cardiolipin

Rat Skeletal Muscle Mitochondria, N = 48, 11% RSD



Center for Inherited Disorder of Energy Metabolism (CIDEM)

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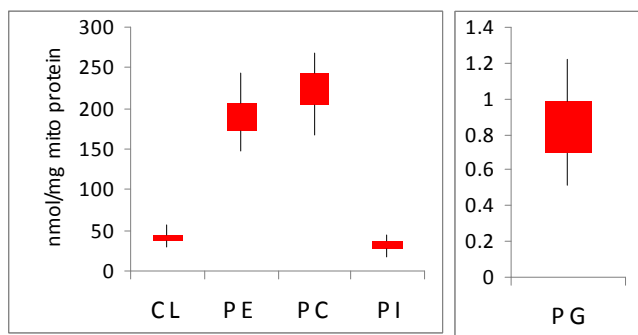
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CLIA: 36D0925804

NPI: 1578706438

Isolated Human Skeletal Muscle Mitochondria

Reference Intervals: Box = Mean \pm SD; Whiskers = Range



Center for Mitochondrial Diseases

Case Western Reserve University School of Medicine
Department of Pharmacology
10900 Euclid Avenue
Cleveland, Ohio 44106-4981

Among the nation's leading academic medical centers, University Hospitals Case Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a nationally recognized leader in medical research and education.

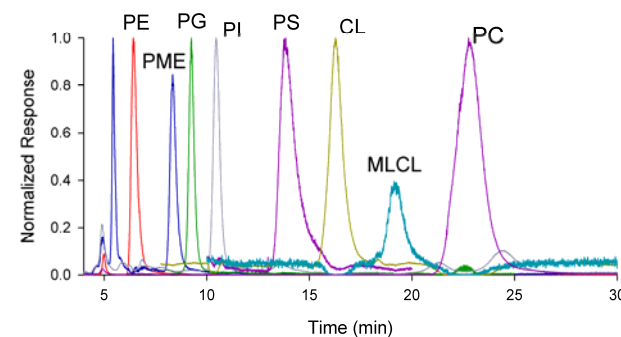


CIDEM

Center for Inherited Disorders of Energy Metabolism

www.case.edu/med/CIDEM

Quantitative Phospholipid Analysis by HPLC-MS

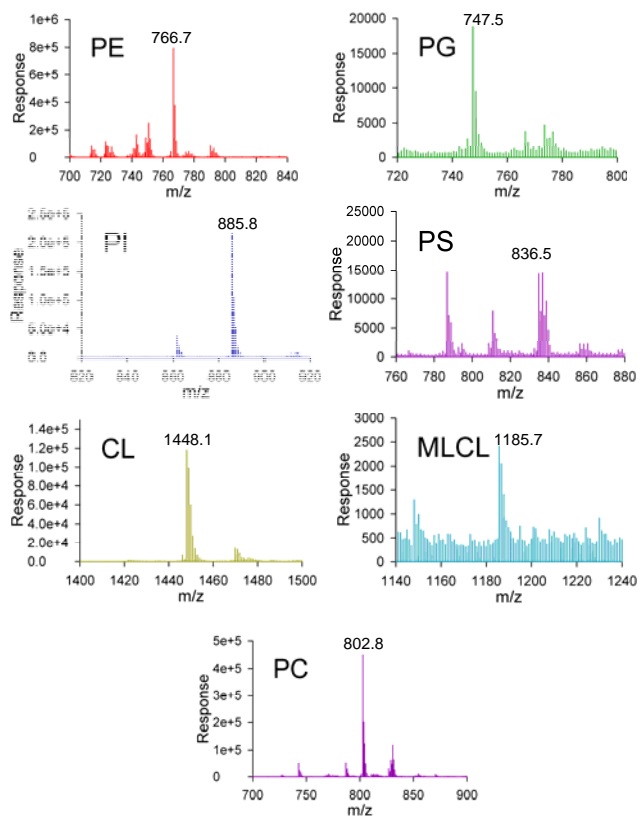
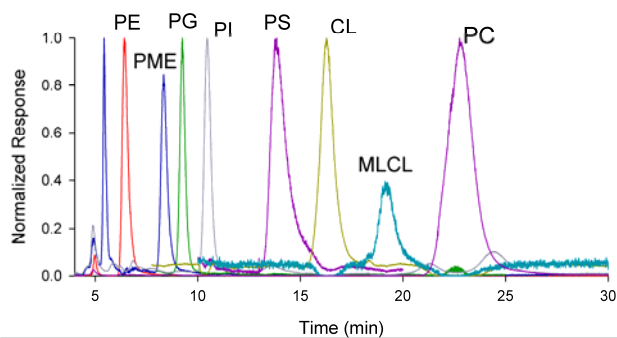


Center for Mitochondrial Diseases

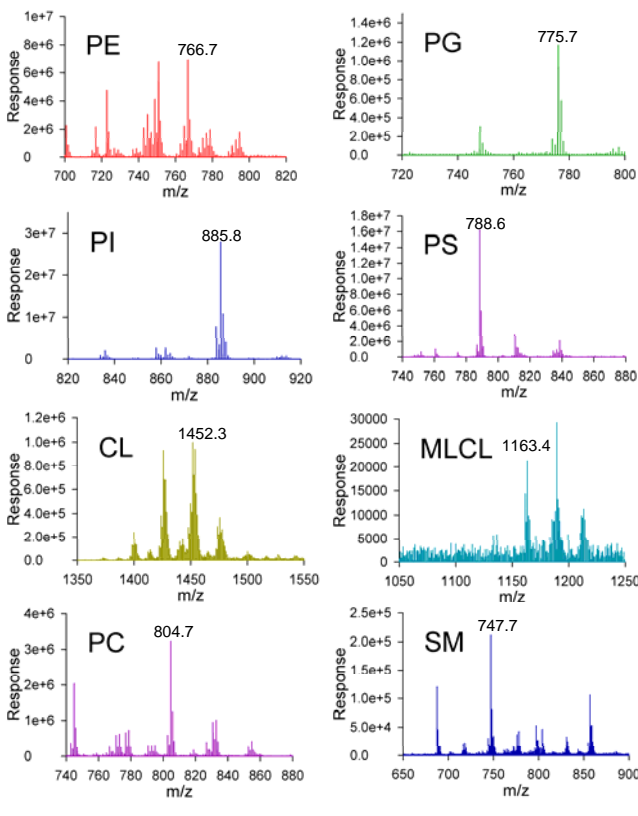
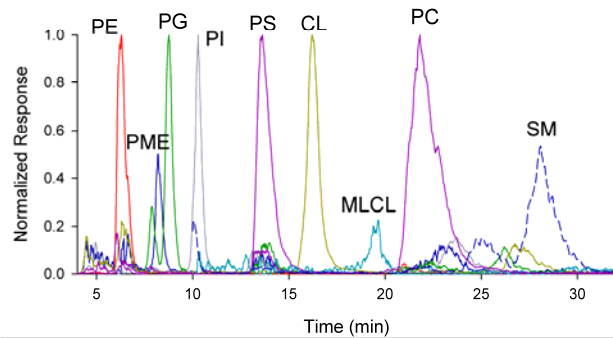
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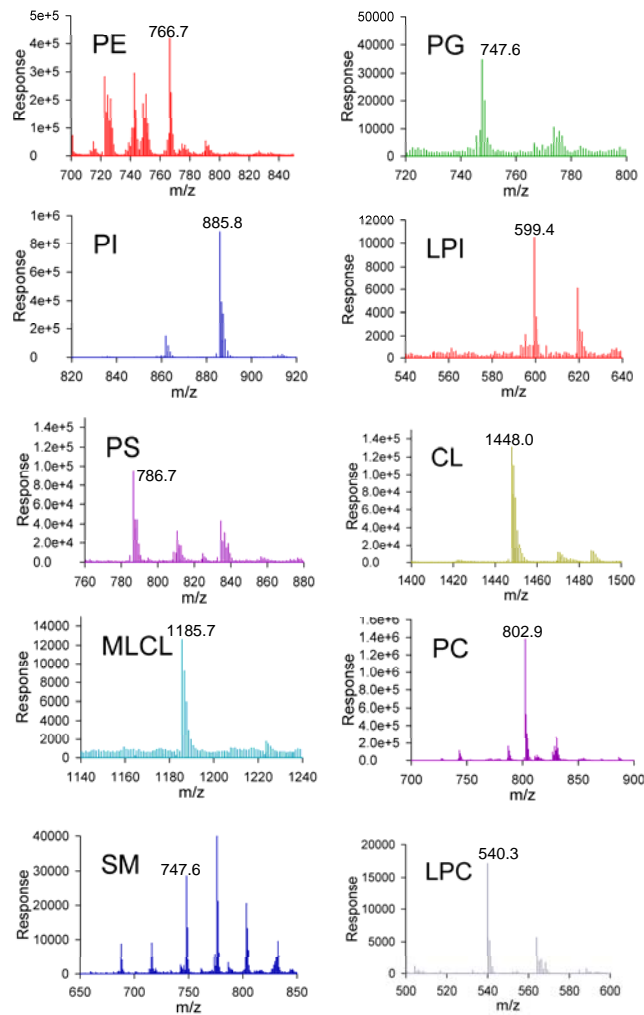
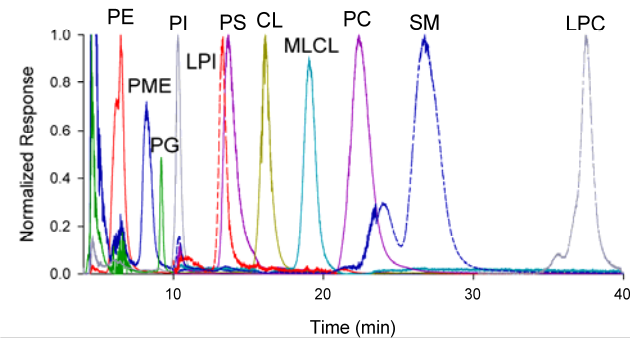
Human Skeletal Muscle Mitochondria
Phospholipid HPLC-MS Chromatogram and Spectra



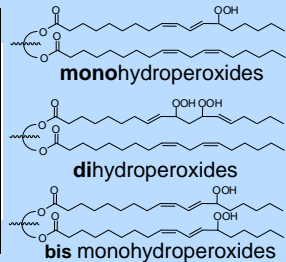
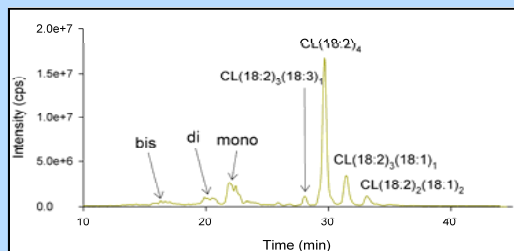
Human Skin Fibroblasts
Phospholipid HPLC-MS Chromatogram and Spectra



Human Skeletal Muscle
Phospholipid HPLC-MS Chromatogram and Spectra



Oxidized Cardiolipin
Reversed-Phase Ion-Pair HPLC-MS/MS



Symbol Key:

- PE - phosphatidylethanolamine
- PG - phosphatidylglycerol
- PI - phosphatidylinositol
- LPI - lysophosphatidylinositol
- PS - phosphatidylserine
- CL - cardiolipin
- MLCL - monolysocardiolipin
- PC - phosphatidylcholine
- SM - sphingomyelin
- LPC - lysophosphatidylcholine