

# UAB NATHAN SHOCK CENTER CORE SERVICES

**Investigator**

**Email**

**Project Title**

**Funding Agency:** NIA NIH NSF Other

## ***Comparative Mitochondrial Health Assessment Core (CMHAC)***

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<https://www.uab.edu/shockcenter/cores/cmhac/cmhac-application>

### **Mitochondrial Bioanalytical Services**

- Mitochondrial Oxidative Phosphorylation Complex Activity Assays
- Mitochondrial Protein Content Analysis).
- Mitochondrial Citrate Synthase Assay
- Bioenergetics' Analysis of Tissues (fresh and frozen), Mitochondria, and Cells

### **Mitochondrial models and mtDAMPs**

- Mitochondrial nuclear exchange (MNX) models
- mtDNA damage and haplotyping analysis
- Measurement of mtDAMPs

### **Autophagy and Mitophagy Assessments**

Ratio of LC3 I and II proteins by western blot.

Autophagic flux assays

### **Oxidative Stress Measurements**

Measurement of reduced Glutathione

Determination of Oxidation of Thiols (as well as protein thiols)

Protein S-glutathionylation

F2-Isoprostane Measurements

### **Targeted Proteomics and Metabolomics**

F2-Isoprostane Measurements

Krebs cycle and glycolysis intermediates

\$\$ Targeted metabolomics and isoprostane assays require the use of the UAB Targeted Metabolomics and Proteomics Laboratory and will cost \$200/sample (this includes sample preparation in NSC core at \$140 / sample, as well as the UAB Targeted Metabolomics and Proteomics Laboratory and will start at a rate of \$60/sample). We will act as an intermediary for samples that need to be processed by mass spectrometry.

All other assays will start at a base cost of \$200. A more thorough cost cannot be assessed until the experimental details have been discussed, i.e., sample matrix, sample number and endpoint desired.

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