

The Lipids and Lipoproteins Sub-Core provides quantitative and qualitative measurements of plasma and tissue lipids and lipoproteins to researchers who study atherosclerosis, dyslipidemia, diabetes, obesity, hypertension, and other metabolic diseases.

Expand

Some of the services provided are routine assays (e.g., plasma lipid and lipoprotein levels) that have widespread applicability. However, most of the assays available through our Subcore are unique services, not offered by other centralized laboratories at VUMC or elsewhere. For example, we can quantitate a variety of cellular or tissue lipids by gas chromatographic techniques. In addition, we can provide fatty acid composition data for all the lipid esters (e.g., cholesterol esters, triglycerides, diglycerides, phospholipids) as well as levels and distribution of plasma free fatty acids. The Lipids and Lipoproteins Subcore provides investigators with efficient, high quality, low cost analyses that for the most part are not available through any other mechanism.

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## Publications / Citations

1. [Hepatic glucose uptake and disposition during short-term high-fat vs. high-fructose feeding](#). Coate KC, Kraft G, Moore MC, Smith MS, Ramnanan C, Irimia JM, Roach PJ, Farmer B, Neal DW, Williams P, Cherrington AD (2014) *Am J Physiol Endocrinol Metab* **307(2)**: E151-60  
› Primary publication · [24865981](#) (PubMed) · [PMC4101635](#) (PubMed Central) · Added on 6/2/2014
2. [Enhanced synthesis of saturated phospholipids is associated with ER stress and lipotoxicity in palmitate treated hepatic cells](#). Leamy AK, Egnatchik RA, Shiota M, Ivanova PT, Myers DS, Brown HA, Young JD (2014) *J Lipid Res* **55(7)**: 1478-88  
› Primary publication · [24859739](#) (PubMed) · [PMC4076085](#) (PubMed Central) · Added on 1/23/2015

## MeSH Terms

Animals Blood Glucose Cell Line, Tumor Diet, High-Fat Dietary Carbohydrates Dietary Fats Dogs Endoplasmic Reticulum Stress  
Fructose Glucokinase Glucose Glycerol Hepatocytes Lactic Acid Liver Male Palmitic Acid Phospholipids Rats  
Rats, Sprague-Dawley Triglycerides