



# Metabolic and Demonstration Kitchen

CORE SERVICES

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**UAB** The University of  
Alabama at Birmingham.

## Overview

➤ The metabolic kitchen is designed to deliver clinically controlled meals, support multidisciplinary research, and promote hands-on learning and capitalize on emerging opportunities in the market.

- Registered dietitians engineer and implement controlled dietary interventions by sourcing, storing, preparing, cooking, dosing, and providing all meals to research participants. Precision diet formulation enables controlled macro- and micro-nutrient manipulation.

- Research staff produce pharmacy-grade meals to ensure accurate energy balance intake.

➤ The demonstration teaching kitchen supports live, recorded, and hands-on classes, demonstrations, and laboratory activities. A state-of-the-art audiovisual system enables instructors to teach the principles of Food Is Medicine while allowing participants to immediately apply that knowledge through preparation of health-promoting and medically tailored meals.



## Core Collaboration

BAI NORC Core

UAB DNS Metabolic Health Clinic

UAB DNS Whole Room Indirect Calorimetry Suite

UAB School of Nursing

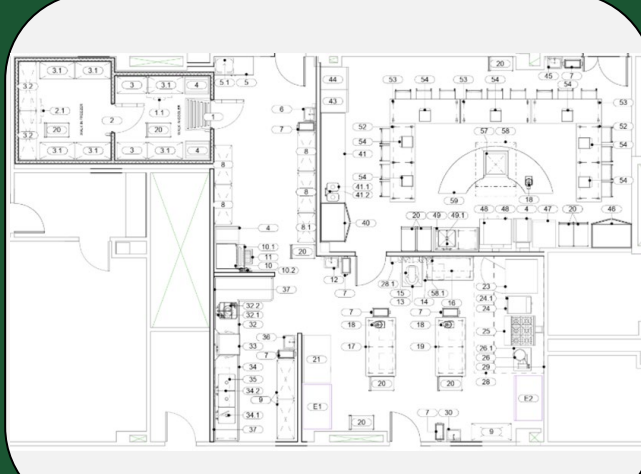
UAB Dept. of World Languages & Literatures

Viva Health

UAB Tv

UAB Student Media

Blazer Kitchen



## Current/Planned Grants and Programs

### •Current:

- Low-carbohydrate diets for weight loss maintenance following discontinuation of new anti-obesity medications: Impact on energy intake and expenditure (KETO-WEI)
- Effect of Time-Restricted Feeding on 24-Hour Glycemic Control, Blood Pressure, and Cardiovascular Disease Risk Factors in Adults with Prediabetes (MEAL TIMING)
- Using Early Time-Restricted Feeding and Timed Light Therapy to Improve Glycemic Control in Adults with Type 2 Diabetes (CLOCKS)
- Time-Restricted Eating and Cancer: Clinical Outcomes, Mechanisms, and Moderators
- Nutrition for Precision Health (NPH)
- Gastrointestinal Oxalate Absorption in Calcium Oxalate Stone Disease (GIA)
- Endogenous oxalate synthesis in idiopathic calcium oxalate kidney (OSS)
- Oxalobacter formigenes colonization in calcium oxalate kidney stone formers (OCK)
- Sleep and Circadian Contributions to Nighttime Blood Pressure Rhythms (SCN-BP)
- Flavors of the World: A Cultural Cooking Series - Student Engagement Grant through the College of Arts and Sciences, the Department of World Languages and Literatures
- Herb and Spice Study

### •Planned

- R01 Colonization of Volunteers with Oxalobacter formigenes Post Roux-en-Y Gastric Bypass surgery (BAR)
- R01 RT-SM-IMDs - resistance training (RT) alone, or combined with a protein diet (PRO), can minimize the loss of skeletal muscle (SM) seen with incretin mimed drugs (IMDs) (semaglutide and tirzepatide) in older adults with obesity.
- R01T1DM\_Std.CHO\_LowCHO\_Med
- 24-hour recalls to assess glycemic load, total carb, processed carb, added sugar, total sugar
- Ketogenic feeding in patients with community-acquired pneumonia (CAP)
- SBIR "Ketone IQ™: An Exogenous Ketone Supplement as a Metabolic Adjuvant for MASLD."
- CHAMPS
- Acute Modulatory Role of Whole Grape Polyphenols on Room Calorimetry Derived
- Respiratory Exchange Ratio and Mitochondrial Function in Obesity
- Activating UAB's Metabolic and Teaching Kitchens: Launching Scalable Culinary Medicine, Research, and Education Programming

### •Programs and Events

- Cooking classes, cooking demonstrations, dietitian engineered meal program, food waste sustainability program