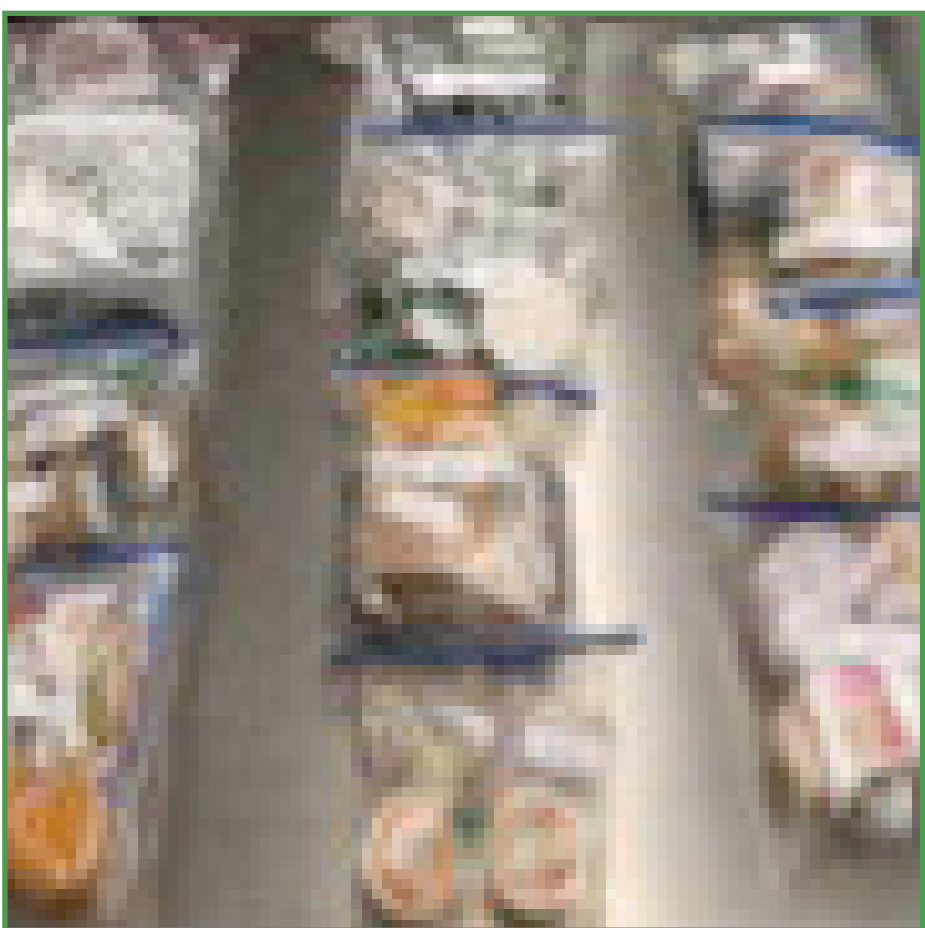


RESEARCH NUTRITION CORE

The Johns Hopkins ICTR Research Nutrition Core seeks to address the problem that clinical investigators are met with in executing high quality, reproducible studies using an ever-shrinking allotment of resource funds in the specialty area of dietary assessment, energy assessment, body composition, specialized food service and dietary interventions. With a growing prevalence of diet-related preventable diseases, there is an increased need for such studies.

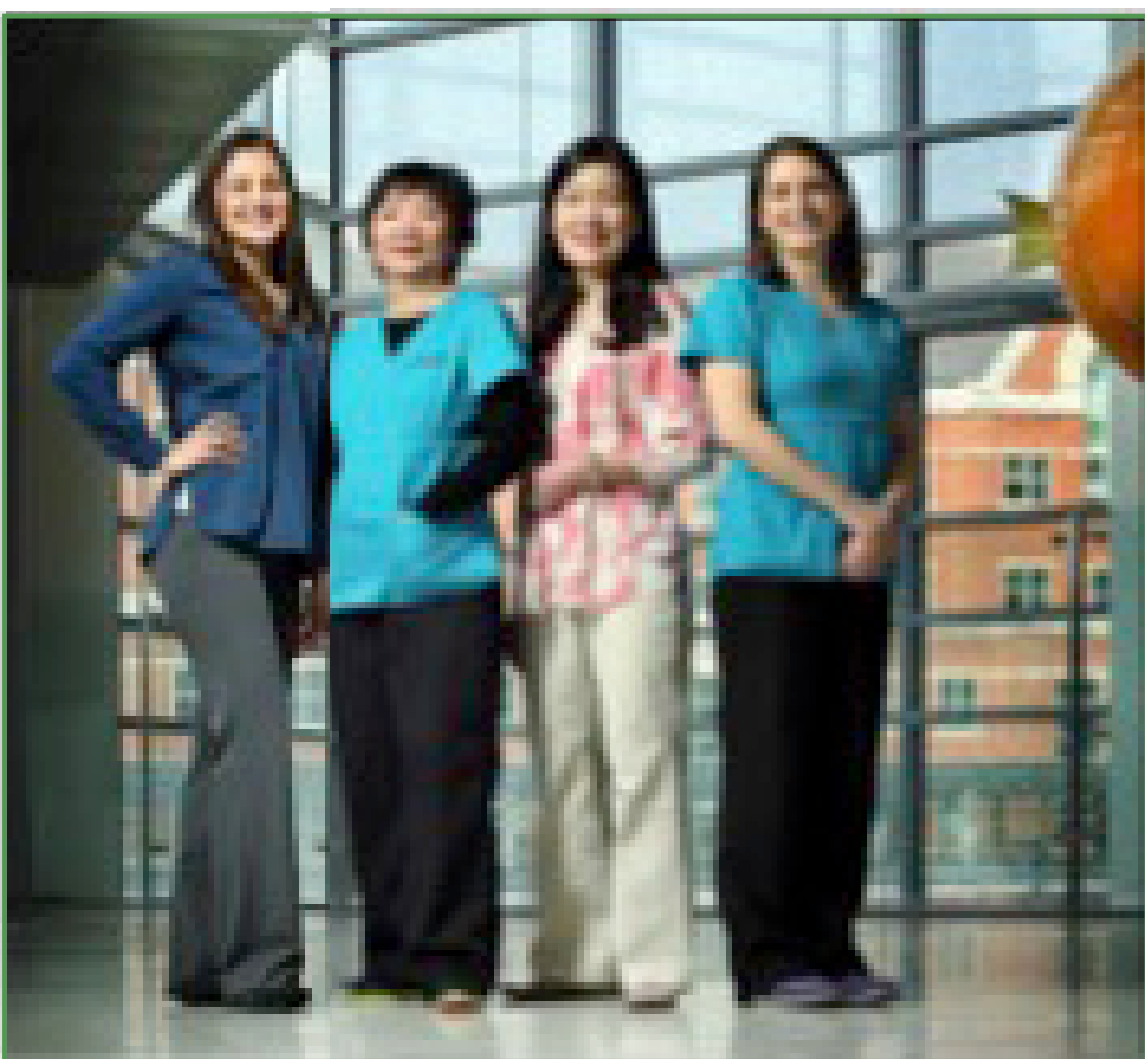


Susan Oh, MS, MPH, RDN
Nutrition Core Director



The ICTR Research Nutrition Core provides outstanding nutrition research service and consultation for clinical investigators. The Research Nutrition program services more than 130 protocols from investigators at all CRU sites. This includes Adult Inpatient and Outpatient, Pediatric Inpatient and Outpatient and the Bayview Clinical Research Unit. This involves, most broadly, the technical delivery of precise, accurate diets, tastants, food challenges, food arrays, metabolic meals as prescribed in research protocols, and the availability of expert nutritionist consultation and collaboration for protocols with special dietary focus as well as dietary assessment, body composition assessment and energy assessments using indirect calorimetry, DXA, bioelectrical impedance, anthropometric measurements and equation calculations. All of these tasks require the significant investment of the Nutrition Research Service.

The Research Nutrition Core provides investigators with a staff of highly trained experts to advise, administer, and construct a variety of novel approaches in the areas related to food nutrition, assessment and body composition.



Int. Parameters	Adult-Inflammatory	Metabolic
Macronutrients as % of Calories	40% Carbohydrate, 30% Fat, 30% Protein	40% Carbohydrate, 30% Fat, 30% Protein
Cal	~1000 kcal	~1000 kcal
Protein	~100g/day	~100g/day
Carb	~200g/day	~200g/day
Fat	~100g/day	~100g/day
Cal	~1000 kcal	~1000 kcal
Protein	~100g/day	~100g/day
Carb	~200g/day	~200g/day
Fat	~100g/day	~100g/day
Cal	~1000 kcal	~1000 kcal
Protein	~100g/day	~100g/day
Carb	~200g/day	~200g/day
Fat	~100g/day	~100g/day

NUTRITION RESEARCH SERVICES INCLUDE BUT NOT LIMITED TO:



Comprehensive Clinical Nutrition Assessment

This is conducted by diet history, measurements, nutrition assessment, counseling, education, and follow-up



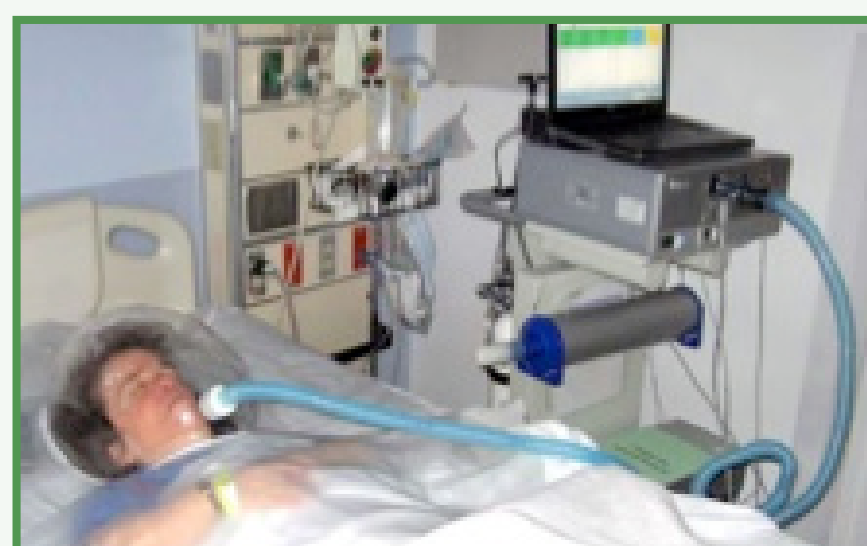
Dietary Assessment

In the form of 24-hr recalls, food records, technology based questionnaires, food frequency questionnaires. Calculations of dietary indices such as the Healthy Eating Index.



Anthropometrics and Body Composition Assessment

- Skinfolds, Circumference Measurements, Calipers, Bioelectrical impedance (BIA), DXA
- Energy Assessment: Calculated equations, indirect calorimetry



Research Protocol Consultative Services

Protocol development and design, data management, data interpretation, publication assistance



Meals and Specialized Diets

- Standard boxed meals serves participants who usually stay for long visits in the CRU, calculated and/or specialized transportable boxed meals.

- Specific nutrient controlled meals for special testing for pharmacokinetic studies, PET breakfast (300 Kcal meal) and/or High Calorie/high fat meals for CF populations who require nutrient dense meals, Allergy meals (usually require outside procurement), Kosher meals, etc.
- Allergy Oral Food Challenges: Placebo and active, medium, multiple levels of intensity.



- Specialized tastants and supplements: Sugar and salt solutions – specifically looking at taste acuity in morphine addiction, Sugar and Fat solutions – for post bariatric study taste preferences, Protein whey and placebo supplement preparation for home dosing.
- Specialized meals – Nutrient specific, % of macronutrients, weighed meals for exact dietary consumption and calculation. High intensity meals – Food Array of 9000 kcals – prepared hot, weighed, measured back after consumption. Finally, feeding studies of multiple days of packed out foods for free-living research subjects.

