

Energy Balance Assessment Supplemental Funding

NATURE AND PURPOSE OF THIS RFA: The Center for Energy Balance in Cancer Prevention and Survivorship (CEB) encourages collaborative, trans-disciplinary research on energy balance and cancer. Energy balance research investigates the effects of diet, physical activity, and body composition on the development and progression of cancer and on cancer patients' quality of life. MD Anderson has numerous shared resources that provide services to support EB research, including assessments of physical fitness and body composition, physical activity, and dietary intake; microbiome sequencing; metabolite analysis; and measures of mouse energy intake and output. However, these resources operate on a fee-for-service basis, and the cost of including these services is often too high to include in pilot tests funded by seed money grants or start-up funds. **The CEB offers funding (up to \$10,000/project) to support shared resource services included in Energy Balance pilot tests which generate preliminary data for a larger grant application. Preference will be given to projects with an approved IRB protocol already in place.**

Examples of cores and shared resources supporting energy-balance research:

- [Assessment, Intervention and Measurement \(AIM\) Core](#) – [i.e. exercise facility, fitness testing, anthropometrics, body composition measurements]
- [Microbiome Core Facility](#) [i.e. microbiome study consultation, data analysis of 16S sequencing, gut microbial profiling]
- [Bionutrition Research Core](#) – [i.e. metabolic kitchen, dietary assessments and analysis, nutrient-controlled human feeding studies, nutrition education]
- [Mouse Metabolic Facility](#) [i.e. mice in home-cage design system monitoring metrics of food, water, body-weight fluctuations, O₂, CO₂]
- [Metabolomics Facility](#) [i.e. metabolite analysis, assay setup, redox metabolism assays]
- [Keeling Center National Research Resources Programs](#) [i.e. primate behavioral management]
- Review additional MDACC Cores and Shared Resources [here](#).

Examples of energy-balance related research utilizing MDACC shared resources:

1. *Determination of changes in diet composition and timing of diet on leukemia bearing mice on tumor progression, metabolic activity, and physical activity.* – Shared Resource: Mouse Metabolic Facility
2. *Longitudinal dietary monitoring in patients on clinical trials to track changes or drops in macronutrient intake (e.g., kilocalories, % energy from protein or fat) or other specific nutrients (e.g., dietary methionine or fiber)* – Shared Resource: Bionutrition Research Core
3. *High-intensity interval training for women at heightened risk for breast cancer* – Shared Resource: Assessment, Intervention and Measurement Core

Budget limit: \$10,000 (1 year). Up to five projects will be funded in FY23.

Application deadlines: **September 30, 2022 and February 28, 2023.** Application form, currently approved protocol (if applicable), and budget should be submitted electronically to energybalance@mdanderson.org by 5pm.

Eligibility: Full-time MD Anderson faculty, instructor through full professor. Tenured, tenure track, and non-tenure track.

Process:

- Contact core and/or shared resources for services and budget development
- Submit application, consisting of:
 - Application form
 - Project description: 6,000 character maximum [including spaces], containing an abstract for the overall study, objectives related to EB, rationale for including shared resource assessments, services requested, timeline, and future funding plans
 - Budget (generated by shared resource)
 - List of collaborators

Review:

- Proposals will be reviewed and scored by the Center director and three senior investigators
- Evaluation criteria: Project significance and relevance to energy balance research, innovation, approach and feasibility, and plans for future funding
- Funding will be granted approximately two months after each deadline

Post award:

- The core or shared resource will bill the Center for Energy Balance for payment directly
- Funds should be expended within 12 months of approval, unless permission for an extension is given by the Center Director
- Progress report due 12 months after award date. Brief follow-up report due 24 months after award date.

For more information regarding eligibility, preparation and submission of applications, contact: Thuan Le, MPH, TALe@mdanderson.org, 713-794-1061.

Attachments: Funding Application, Examples of EB Measures and Costs