

Background

Oncology research often focuses on therapeutic interventions but there has been growing interest in screening and translational, preventative interventions: cancer interception at earlier stages. For interested researchers, institutions may have spaces that can only study one aspect of prevention, making comprehensive study of progress and synergistic behaviors challenging. To address this, Moffitt constructed the Population Engagement and Research Laboratory (PEARL) facility to facilitate cancer screening and prevention studies.

Goals

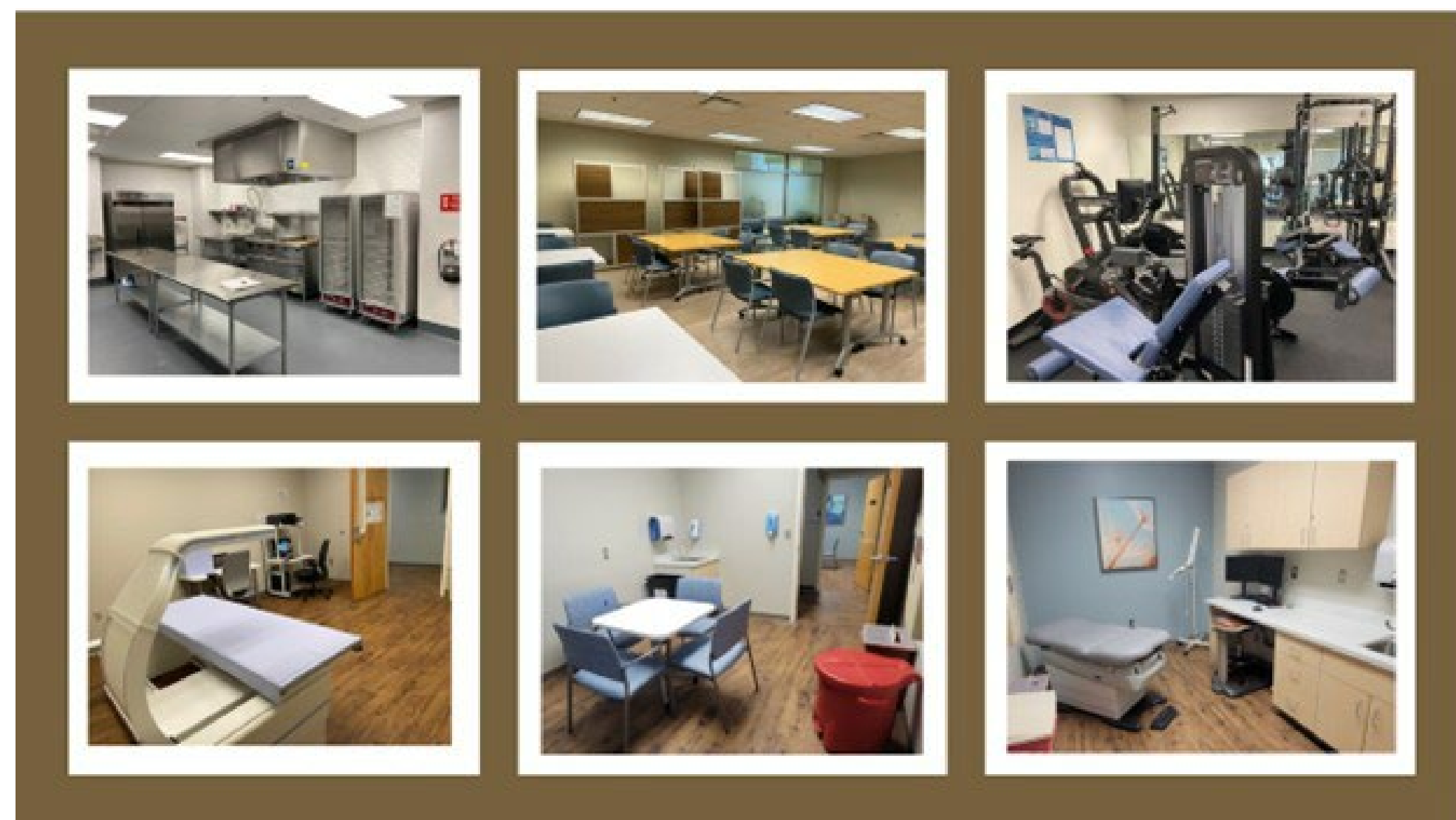
- To create a shared, collaborative resource for comprehensive cancer prevention research and community engagement.
- To ensure flexible and equitable access to the facility for research teams and their participants.
- To create a financially stable model for the new facility.
- To reduce burden on clinics by providing dedicated space for research procedures.
- To facilitate the conduct of high-impact research (especially regarding energy balance in relation to cancer).

Solutions and Methods

A 13,000 sq. ft. space was converted into the PEARL facility for non-standard of care research procedures in 2023. PEARL contains a research kitchen for controlled feeding studies, body composition room including a DEXA scanner, an exercise oncology laboratory, exam rooms, specimen processing lab, as well as assessment and observation rooms equipped with ventilation to allow for smoking cessation and behavioral studies.

A manager was hired to run the facility, define and operationalize services, and create a financial plan to increase sustainability. As part of this financial plan, a service-based cost recovery model was created which includes labor and supplies for the facility. Rates were tiered based on the funding source. The financial plan also includes fundraising and donor solicitation as part of its comprehensive approach.

Finally, a promotional tour was beneficial for generating awareness of the new facility among clinical and research faculty and providing inspiration for future research leveraging the space and services. As part of this tour, start-up funds were provided to up to ten new customers to the facility with IRB-approved protocols.



Energy balance faculty were recruited to Moffitt and PEARL facility was built in existing research space to support their incoming research portfolios.

Service

- DEXA Scan
- Exercise Physiology Consult
- PEARL Staff: Research Phlebotomy
- Research Supply Misc.
- Research Meal Provision, per meal
- Meal Shipment, Frozen
- Meal Shipment, Fresh/Refrigerated
- Custom Menu Creation
- Basic Noninvasive Specimen Collection
- PEARL Staff: Survey or Data Collection
- Research Service Misc.
- Protocol Consultation and Writing

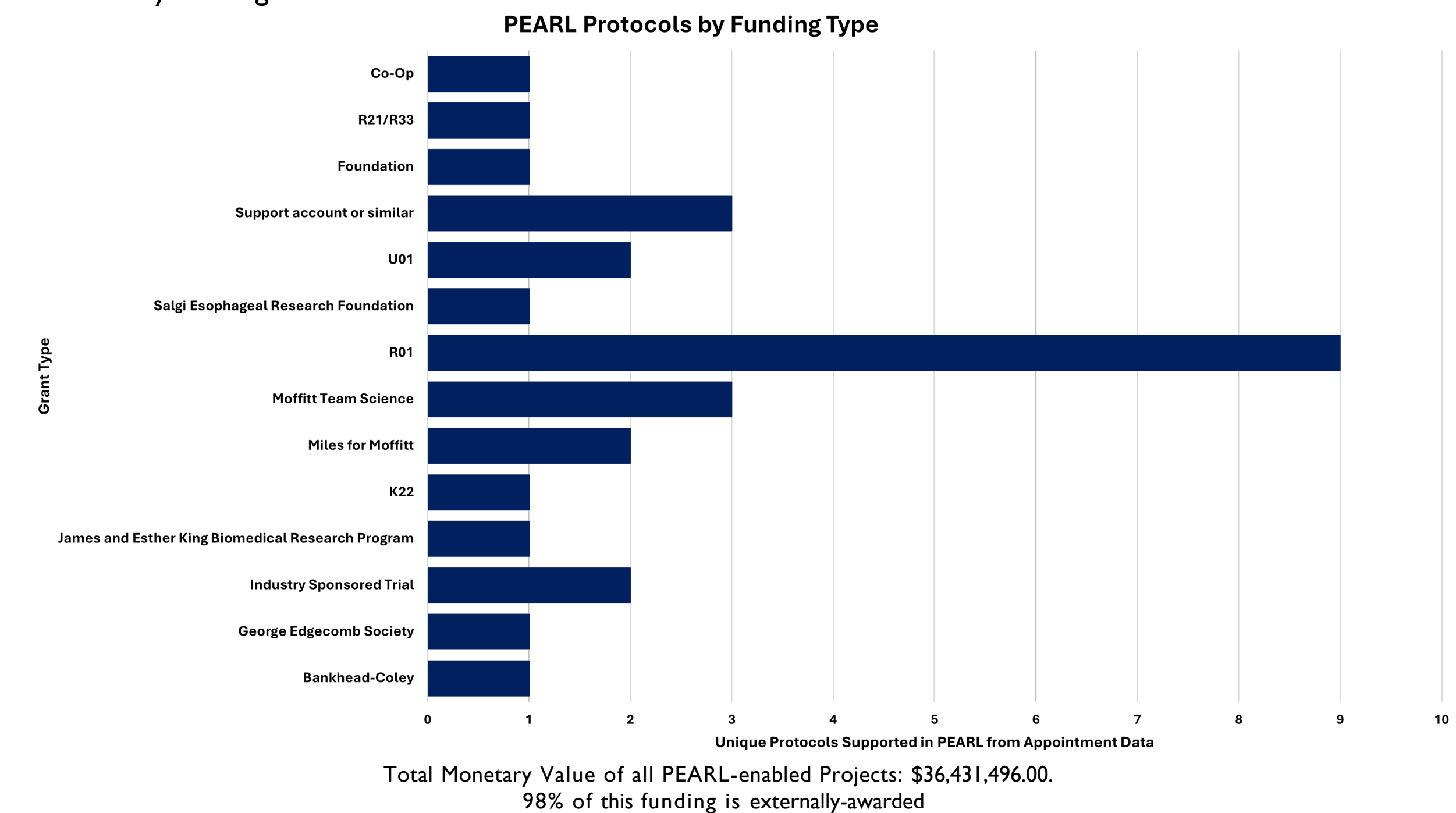
PEARL services were established based on faculty needs and facility capabilities.

Outcomes

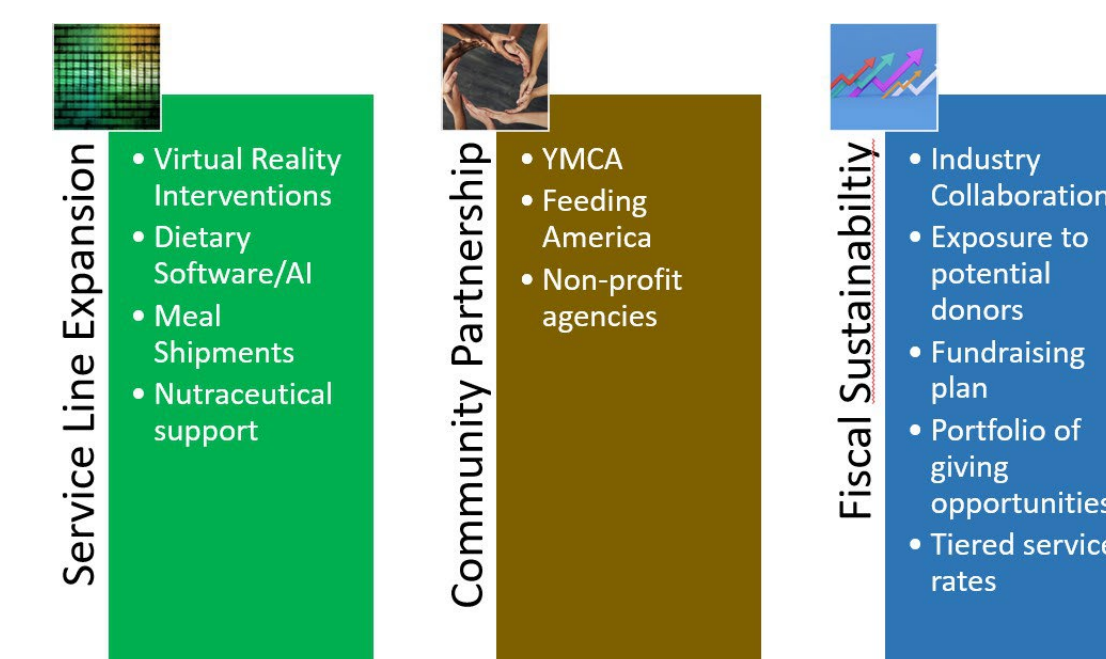
Those studies focusing on cancer prevention research have historically faced challenges with compliance given the complexity of participant recall, meal-logging, and intervention compliance. The PEARL facility allows for comprehensive study and monitoring of preventative behaviors: behavioral, dietary and exercise interventions, along with monitoring of efficacy of these approaches through body composition assessment and biomarkers. Meal provisioning results in increased dietary compliance due to convenience of ready-to-eat meals.

The initial investment into the faculty recruitment and investment has paid dividends in grants awarded to Moffitt faculty that are leveraging PEARL resources. Additionally, the PEARL study portfolio demonstrates the high-impact research occurring in the space (R01s or similar).

Awareness of and excitement for the facility is increasing and it has been well-received by donors. New studies from across the disease programs are opening in the space. Revenue is expected to begin flowing into the facility through services and donations.



Lessons Learned and Future Directions



Future direction of PEARL

Building a resource such as PEARL is an interdisciplinary team lift that if done correctly, can generate significant return on investment via high-impact research and externally-awarded funding. Future state resource development goals for PEARL include introduction of new services, community and industry partnerships, as well as a diversification of the funding model. PEARL will remain flexible and adaptive to research needs.