

## **Population Engagement and Research Laboratory (PEARL)**

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### **1. 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.

### **2. 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.

### **3. Solutions and Methods**

A 13,000 sq. ft. space was converted into the PEARL facility 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, 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.

### **4. 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 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.

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.

## **5. Learned and Future Directions**

Building a resource such as PEARL is an interdisciplinary team lift. Future state resource development goals for PEARL include introduction of virtual reality interventions, AI dietary logging software for participants for accurate data capture, meal shipments to participants, and potential nutraceutical study support. PEARL will remain flexible and adaptive to research needs.

To foster fiscal sustainability, the manager will work with the Innovations Office to open PEARL to sponsored collaborations and work with the Foundation department to increase exposure to potential donors.

To increase community engagement in PEARL, we plan to work with our faculty who have built strong community partnerships with organizations such as the YMCA and Feeding America.

**Figure**

