2023-2024 Young Investigator Award Recipients

The National Ovarian Cancer (NOCC) Research Grant for Early Detection of Ovarian Cancer

Dr. Kanbergs - MD Anderson Cancer Center

Title: Acting on Cancer Testing Together (ACT-Together)

Background: BRCA1/2 mutations significantly increase the risk of ovarian and breast cancer. However, adherence to recommended surveillance and utilization of risk-reducing interventions (RRI) remains low. Rates are even lower in underserved populations, underscoring the urgent need for interventions in this population. Group education programs have shown promise in improving health outcomes through their combination of social interaction, shared goals, and expert guidance to cultivate a sense of commitment and community among participants. In the proposed study, we will assess the feasibility of Acting on Cancer Testing Together (ACT-Together), an intervention that uses group-based education and text reminders to increase adherence to recommended surveillance and promote RRI.

ACT-Together is feasible in medically underserved patients and will increase rates of adherence to surveillance and completion of RRI for ovarian cancer patients with BRCA1/2. A prospective cohort feasibility study will assess the implementation of ACT-Together among medically underserved populations. Individuals with BRCA1/2 will be identified in ongoing studies aimed at increasing genetic testing and through collaboration with research partners. Participants will undergo the ACT-Together intervention along with quantitative assessments to assess program utilization, screening adherence, and risk-reduction intervention uptake. Qualitative surveys will be used to gauge behavioral change and satisfaction with the intervention.

The benefits of genetic testing are derived from acting upon test results to detect cancers early or prevent them altogether. ACT-Together has the potential to initiate behavior change and improve screening and risk-reduction interventions for individuals with BRCA1/2 and serve as a scalable model to improve cancer prevention.

The National Ovarian Cancer Coalition (NOCC) Research Grant for Quality of Life

Dr. Thayer - Emory University School of Medicine

Title: Prevention of Paclitaxel-Induced Peripheral Neuropathy: Randomized Trial of Cryotherapy With and Without Cilostazol

Background: In many patients, the medicine paclitaxel can cause a condition called peripheral neuropathy, affecting up to 97% of patients. Neuropathy can be a big problem because it may impact and affect the recommended treatment plan and quality of life. However, there are ways to help reduce these risks. Cryotherapy, a treatment that uses cold temperatures, has been found to lower the chances of having severe peripheral neuropathy. Another medication called cilostazol has also shown promise in preventing this nerve problem. It works by stopping certain cells in the body from reacting badly to paclitaxel. A study involving patients with breast cancer who were taking paclitaxel found that those who took cilostazol had a much lower rate of severe peripheral neuropathy and reported better quality of life.

The primary objective of this study is to measure how often and how serious nerve problems are in those receiving cryotherapy with and without cilostazol, during treatment using paclitaxel.

2022-2023 Young Investigator Award Recipients

The National Ovarian Cancer (NOCC) Research Grant for Early Detection of Ovarian Cancer

Dr. Langstraat- Mayo Clinic

Title: A Deep Learning Algorithm for Early Detection of Ovarian Cancer Among Patients with Adnexal Lesions

Background: Many women are found with ovarian cysts (i.e., adnexal lesions) during diagnostic ultrasounds. In those cases, it is crucial to understand whether the cyst is benign or malignant. Indeed, benign cysts are not worrisome, while malignant cysts are a sign of ovarian cancer, the most lethal gynecologic tumor. Unfortunately, discrimination is often challenging. Deep learning (i.e., a specific artificial intelligence technique) can help physicians in this task. Hence, we aim

to develop a deep-learning model that analyzes ultrasound images and suggests if the ovarian cyst is benign or malignant. For this purpose, we will use all the ultrasound images of ovarian cysts treated at the Mayo Clinic, Rochester, in the past. Next, the joint effort of humans and computers will create a model that assigns a risk of malignancy to those ovarian cysts. In the ultrasound units, we already use traditional algorithms that are accurate but need human intervention and expertise. To evaluate the usefulness of our model, we will compare it with those conventional methods. If we succeed in developing a model that is accurate like traditional algorithms but less dependent on humans, we could improve the management of ovarian cysts. Indeed, ovarian cancer could be diagnosed earlier, with better prognoses, while decreasing unnecessary treatment of benign lesions.

The National Ovarian Cancer Coalition (NOCC) Research Grant for Quality of Life

Dr. Boitano- University of Alabama at Birmingham

Title: Using a Novel Mobile Cognitive Training Application to Improve Cancer-Related Cognitive Impairment in Gynecologic Oncology Patients

Background: Cancer-related cognitive impairment (CRCI), also known as “chemo brain,” is the cognitive decline that negatively impacts the majority of cancer patients undergoing chemotherapy, radiation, and/or hormonal treatment. Deficits can include memory, executive function, and attention domains. Studies have demonstrated that 50- 75% of women with gynecologic cancers reported significant CRCI during/after treatment. Cognitive training mobile applications (CTAs) are innovative tools that hold promise in counteracting CRCI and are attractive, given their ease of use and trackability. In gynecologic oncology literature, minimal descriptive reports on CRCI are available, and currently, no interventions exist that utilize mobile applications to improve CRCI. This application focuses on evaluating if using a cognitive mobile training application can decrease the impact of CRCI in gynecologic oncology patients through a multidisciplinary approach with patients undergoing assessments by our neurocognitive team. Our first goal will be to perform a comprehensive assessment of the neurocognitive changes in gynecologic oncology patients undergoing combination chemotherapy cancer treatment. Our second goal will be to evaluate compliance with the CTA and its impact on CRCI in gynecologic oncology patients. We will partner with the neuropsychology cancer team at our institution to perform this multidisciplinary trial. If successful, data from this innovative and broadly applicable

intervention will be used for a larger randomized controlled trial to help improve the lives of women with gynecologic cancers who are affected by CRCI.

2021-2022 Young Investigator Award Recipients

The National Ovarian Cancer (NOCC) Research Grant for Early Detection of Ovarian Cancer

Dr. Gordhandas - Memorial Sloan Kettering Cancer Center

Title: Understanding Decision-Making for Risk Prevention Surgery: A WISP Qualitative Study (Salpin-jectomy)

Background: The goal of the ongoing Women Choosing Surgical Prevention (WISP) study is to determine whether interval salpingectomy (surgical removal of fallopian tubes) followed by delayed oophorectomy (ISDO, surgical removal of ovaries) can improve sexual functioning and menopausal symptoms compared to standard risk-reducing salpingo-oophorectomy (RRSO, surgical removal of fallopian tubes and ovaries) for women with high-risk of ovarian cancer (OC). There is limited published literature on the decision-making process in these high-risk women; preliminary WISP data found that age was the only factor associated with decision-making. The primary objective is to identify common themes and influential factors in the decision to undergo risk-reducing surgery in premenopausal women at genetic high-risk for OC. Secondary objectives include identifying ways to improve counseling for risk-reducing surgery and developing a tool to facilitate shared decision-making.

The National Ovarian Cancer Coalition (NOCC) Research Grant for Quality of Life

Dr. Esselen - Beth Israel Deaconess Medical Center

Title: Evaluation of A Novel Financial Navigation Program to Alleviate Financial Toxicity for Women with Gynecologic Cancers

Background: “Financial toxicity” refers to the financial burden and stress imposed on a patient due to a disease and its associated treatment. Cancer patients are prone to high levels of financial toxicity due to the nature of their treatment and severity of the disease. Our study is

focused on patients with gynecologic cancers, which include ovarian, uterine, cervical, vaginal, and vulvar cancers. Up to 58% of gynecologic cancer patients experience significant financial toxicity, which is significantly associated with diminished quality of life and self-reported health. Patients with financial toxicity are more likely to report delaying or avoiding medical care and being nonadherent with medications necessary to their treatment. Patients with more financial toxicity are also more likely to engage in cost-coping strategies such as borrowing money or using their savings. We aim to administer and measure the impact of a novel financial navigation program designed to identify patients suffering from financial toxicity and connect them more efficiently with resources to decrease their financial stress. Patients with a new diagnosis of gynecologic cancer will be screened within 3 months of diagnosis for financial toxicity. If they screen positive, they will be referred to the financial navigation program. The financial navigation program seeks to fully understand each patient's needs and connect them efficiently with resources to mitigate their distress. We will evaluate this program through process measures and describe support services provided and patient experience, including changes in financial toxicity over one year.