# ABOUT THE GALA

**Bears Care partners with Cook County Health, NorthShore University HealthSystem, Northwestern Medicine, Rush University Medical Center, and University of Chicago Medicine in advancing the fight against breast and ovarian cancer. With the success of last year's Bears Care Gala, we are able to continue to invest in our partners' critical work in 2023 including the innovative research, clinical trials and initiatives addressing health inequity in cancer care for women of color, summarized below.**

★ Transitioning services provided by the Cancer Risk Identification, Screening, and Prevention (CRISP) Program to the newly created Cancer Center at Cook County Health, maintaining capacity without interrupting delivery of services. CRISP addresses racial disparities in breast cancer outcomes through the identification of high-risk minority populations that can benefit from additional cancer screening and risk-reducing strategies, with the goal of early detection and prevention.

★ Testing that recombinant spike S1 protein of different SARS-CoV-2 variants will induce death in human triple negative breast cancer cells (TNBC) via the ACE2 receptor, a protein identified as the entry point for coronavirus in humans, and that intranasal administration of this virus-free protein will lead to regression of TNBC tumor in a PDX mouse model.

★ Continuing support for "The Reproductive Atlas of African-American and Hispanic Women" research project which utilizes single-cell RNA sequencing and biostatistical analysis to better understand the cell types that make up the normal female reproductive tract in minoritized women to help identify precursors of common diseases in women of color.

★ Funding gynecologic fellowships to educate and train tomorrow's leaders in the field of women's cancer.

★ Investigating the role of circulating tumor DNA (ctDNA) in monitoring cancer's response to treatment in gynecologic cancers to determine which patients may respond best to immunotherapy. ctDNA assays are non-invasive blood tests that detect malignant tumor DNA without the need for painful biopsies. The study seeks to provide evidence that change in ctDNA levels during immunotherapy can predict patient response to treatment, allowing physicians to tailor treatment more effectively and potentially predict cancer outcomes before imaging.

★ Continuing research to develop an effective pharmacologic agent to target and eliminate genetically damaged cells in the ovary, removing the potentially malignant cells and lowering cancer risk, with current focus on examining whether the mechanism of vitamin D administration (pump, injection or feed) affects its efficacy in clearing genetically damaged fallopian tube cells in the mogp-TAg mouse model.

★ Helping to provide free high-quality mammography to uninsured and underserved women of color from Chicago's most economically challenged neighborhoods.

★ Building upon discovery that FDA-approved vaccines against pathogens can reduce tumor growth in mouse models of metastatic triple-negative breast cancer to study why sequential administration of the vaccines is more effective and if the order of the vaccine administration impacts breast cancer elimination outcomes, with findings informing development of clinical trial.

★ Investigating the role of the immune microenvironment in high-grade serous ovarian cancer by developing a 3D tumor model that can effectively assess the activity of FDA-approved drugs on activating the cytotoxic immune landscape in ovarian cancer tumors, with a focus on the problem of chemoresistance which is responsible for ovarian cancer recurrence.

★ Testing a novel drug combination that targets p53 mutated triple negative breast cancer (TNBC) where the protein has been inactivated, causing aggressiveness in tumors and resistance to standard therapies. The drug combination will target two individual proteins which together should disrupt chromosome separation to kill only TNBC cells, leaving normal cells and tissues unaffected.