No More “Wait and See”: Two Clinical Trials Target the Origins of Recurrent Ovarian Cancer

Break Through Cancer scientists are evaluating a “second-look” technique to measure and destroy persistent cancer cells resistant to frontline chemotherapy.

CAMBRIDGE, MA, UNITED STATES, September 26, 2024 / EINPresswire.com/ -- After initial therapy to treat ovarian cancer, a small number of cancer cells, undetectable on scans, often linger in the body. These cells, referred to as minimal residual disease (MRD), are the seed from which cancer can and does recur for most women diagnosed with stage III or IV ovarian cancer.

MRD is also the central reason why, despite novel treatments, cure rates for these patients remain terribly low.

Now, Break Through Cancer, a Boston-based cancer research foundation, announces two groundbreaking collaborative studies to evaluate methods to detect, monitor and target MRD in ovarian cancer, one of the leading causes of cancer deaths among women. The studies are part of a Break Through Cancer-funded multi-institutional project, Targeting Minimal Residual Disease in Ovarian Cancer.

The two clinical trials utilize second look laparoscopy (SLL), an outpatient surgical procedure, as well as blood tests, to detect MRD and obtain tumor samples from this previously undetectable phase of the disease. Those samples will be analyzed using cutting edge technologies such as clonal tracking, single-cell sequencing and spatial profiling to detect and characterize MRD on a molecular level.

Together, the studies aim to enhance our understanding of the biology of MRD, why ovarian cancer so often recurs, and how to best detect and destroy lingering cancer cells.

“If we can detect that phase of the cancer, then we can study it. And if we can study it, we can

understand its vulnerabilities and design useful, novel treatments," says Amir Jazaeri, MD, Professor, Department of Gynecologic Oncology and Reproductive Medicine, Division of Surgery, The University of Texas MD Anderson Cancer Center, Houston, TX and member of the Break Through Cancer project team..

The first trial, led by Jazaeri, is a randomized Phase I/II study jointly funded by Break Through Cancer and IMUNON (NCT05739981)to evaluate the safety, dosing and efficacy of a novel immunotherapy (IMNN-001) in combination with other therapies. In that trial, scientists will test whether IMNN-001 reduces the rate of MRD in samples taken during SLL, as compared to a control group receiving standard of care. The trial is currently open for enrollment, and patients have begun receiving the treatment.

A second, more expansive MRD-focused trial (NCT06240598) began enrolling in January 2024. This feasibility study aims to determine the safety and practicality of using SLL across a large number of patients with advanced ovarian cancer who have completed their first course of treatment. Patient samples from multiple institutions will be collected throughout the course of disease to determine how features of the cancer cells and MRD change over time, with data and results rapidly shared across the collaborative network.

"We want to better determine if someone is showing evidence of recurrent disease before we can see it on a scan," says Rachel Grisham, MD, Section Head of Ovarian Cancer at Memorial Sloan Kettering Cancer Center (MSK) and Director of Gynecologic Medical Oncology at MSK Westchester, who is involved in both trials.

In addition to better understanding MRD in ovarian cancer, these studies could help speed novel therapies to clinics by establishing the clearance of MRD as an endpoint for clinical trials. "Right now, it takes too long for us to conduct clinical trials, and too long to get more effective treatments into the clinical setting," says Grisham. "It would be a huge win if we could find a better option for endpoints for upfront studies, to allow us to have more efficient clinical trial design."

Traditionally, the endpoint for an investigational drug trial for ovarian cancer is time to progression, or the length of time until a patient's cancer recurs. That time period can be 1-2 years or longer, so trials are lengthy and expensive to conduct. MRD status via SLL can be measured shortly after the first line of chemotherapy, so if it were used as an alternative endpoint, future trials could be shorter and nimbler to test new investigational therapies quickly, before moving into larger, more expensive trials.

"We hope that this proof-of-principle will really spark innovation in this space," adds Jazaeri.

Additional information about the Targeting Minimal Residual Disease in Ovarian Cancer program can be found at https://breakthroughcancer.org/projects/targeting-minimal-residual-disease-in-ovarian-cancer/.

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About Break Through Cancer

Break Through Cancer, founded in 2021, empowers outstanding researchers and physicians to intercept and find cures for several of the deadliest cancers by stimulating radical collaboration among some of the U.S.'s top cancer research institutions: Dana-Farber Cancer Institute, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Memorial Sloan Kettering Cancer Center, MIT's Koch Institute for Integrative Cancer Research, and The University of Texas MD Anderson Cancer Center.

The Foundation is supported by a Board of Directors from the five partner institutions and a Scientific Advisory Board of U.S. cancer experts. The Foundation was launched with an extraordinary challenge pledge of $250 million from Mr. and Mrs. William H. Goodwin, Jr. and their family, and the estate of William Hunter Goodwin III.

For further information, please visit the Foundation's website at www.breakthroughcancer.org.

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