

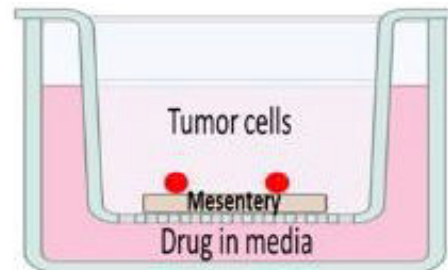
Improving Outcomes for Ovarian Cancer Through the Support of She ROCKS



Ovarian cancer continues to take the lives of far too many women. In women with aggressive and malignant disease, selecting and delivering the right therapies from the many different options remains a major challenge.

UNC Lineberger Researchers **Victoria L. Bae-Jump, MD, PhD**, and **Shawn D. Hingtgen, PhD**, have developed a method that will allow physicians to test potential treatments for ovarian cancer using cells from a patient's own tumors. This process allows physicians to sample a tumor directly from a patient and then it is taken directly to the lab where the sample can be rapidly grown and researchers can test the efficacy of treatments using the tissue. If a treatment shows promise against the sample, there is a high probability it will be effective against a patient's tumor.

With the support of She ROCKS, Dr. Bae-Jump and Dr. Hingtgen have developed a standardized, reproducible process to sample patient tissue and test various drugs and drug combinations. Their early work has already identified alternative therapies for patients, underscoring both the promise of the method and the urgency of developing it into a viable clinical tool. They are working on publishing their results in a top-tier journal and file provisional patents.



In addition, through the cutting-edge technology of the ongoing MASCOT (Manufacturing and Analysis of Stem Cells from Skin Cells for Ovarian Cancer Treatment) translational clinical trial, UNC Lineberger experts are able to take small skin samples from patients and turn them into stem cells that will deliver drugs directly to the tumor. In this approach, different drugs, selected by the oncologist, can be specifically directed to a patient's own tumor tissue; and thus, be more effective as well as avoid toxicity of these drugs to healthy tissue.

Other research efforts from the Bae-Jump and Hingtgen labs include the exploration of diet and metabolic targeted agents in ovarian cancer treatment, as well as the development of novel mouse and cell models to study this disease. The hope from these new technologies is to improve outcomes for women suffering from ovarian cancer.

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Victoria Bae-Jump, MD, PhD **Professor, Gynecologic Oncology**

Victoria Bae-Jump, MD, PhD, is the director of UNC Lineberger's Endometrial Cancer Center of Excellence. As a physician-researcher, Dr. Bae-Jump specializes in gynecologic oncology, translational research in ovarian and endometrial cancer, and novel therapeutics for endometrial cancer. Dr. Bae-Jump also serves as the co-chair of the National Cancer Institute Gynecologic Cancers Steering Committee's Uterine Task Force.

Her research focuses on how obesity and race affect ovarian and endometrial cancer development and progression. The research has identified several novel targeted therapies for obesity-influenced gynecological cancers, and her pre-clinical work using mouse models has led to several clinical trials for therapies for newly diagnoses, advanced, and recurrent patients.



Shawn Hingtgen, PhD **Professor, Division of Pharmacoengineering and Molecular Pharmaceutics/Department of Neurosurgery**

Shawn Hingtgen, PhD, is a researcher studying the potential for stem cell-based therapies to provide treatment and cures for hard to treat and terminal conditions including ovarian cancer. His lab researches the use of targeted treatments specifically designed for individual patients, with a focus on using non-invasive imaging to visualize and tailor treatment based on the real-time response of the patient and the cancer to targeted therapies. He is also a member of the American Institute for Medical and Biological Engineering College of Fellows.

