Biomarkers for high-grade serous ovarian carcinomas

Unmet Need

The American Cancer Society estimates that over 20,000 women in the United States will be diagnosed with and over 13,000 women will die from ovarian cancer this year. High-grade serous ovarian carcinoma (HGSC) is an aggressive type of epithelial ovarian cancer that accounts for 70-80% of these deaths. Most cases of HGSC aren’t diagnosed until the disease has reached an advanced stage and the five-year survival rates are 15%. For those diagnosed earlier in stage 1 or 2, the five-year survival rate can improve significantly to 80%. There is a need for methods that accurately predict clinical outcomes for women with HGSC in order to better inform treatment decisions and improve survival rates.

Technology

Duke inventors have reported biomarkers for high-grade serous ovarian carcinomas intended to be used to inform treatment decisions. Specifically, the gene expression level of an ANGPTL3 biomarker is measured in a biological sample and the quantity is then used to predict the survival years for a patient. These biomarkers were developed based on data collected from 51 patients with chemotherapy naïve HGSC treated at Duke University Medical Center.

Advantages

- Offers a tool for improving the survival rate of patients with high-grade serous carcinoma
- Developed using data from patients at Duke University Medical Center
- Confirmed results using publicly available databases

Publications

- Prognostic significance of differential expression of angiogenic genes in women with high-grade serous ovarian carcinoma (Gynecol Oncol, 2015)
- Differential expression of immune related genes in high-grade ovarian serous carcinoma (Gynecol Oncol, 2020)
- Issued US Patent 9,771,620

Duke File (IDF) #

T-004187

Inventor(s)

- Reihani, Sharareh
- Dewhirst, Mark
- Jiang, Chen
- Owzar, Kouros
- Secord, Angeles

Links

- From the lab of Dr. Shara Reihani
- From the lab of Dr. Angeles Alvarez Secord

College

Duke University Health System (DUHS) - [Hospital employees only]

For more information please contact

Krishnan, Shweta
919-681-7541
shweta.krishnan@duke.edu