Research Round-Up: 11th Biennial Ovarian Cancer Research Symposium
September 12-13, 2014 in Seattle, Washington

By Annie Ellis

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The Biennial Ovarian Cancer Research Symposium is presented by the Rivkin Center for Ovarian Cancer and the American Association for Cancer Research. The goal of the Symposium is to bring together clinicians and researchers from across many disciplines and institutions worldwide in order to encourage collaborations toward advancing the field of ovarian cancer research. The conference seeks to enhance the understanding and knowledge of ovarian cancer, especially among junior investigators, discuss the most recent innovations in the field of ovarian cancer research, and address pressing concerns of the leaders in the clinical and research community.

Detection and Prevention of Ovarian Cancer

Dr. Karen Lu from MD Anderson presented strategies to reduce mortality through prevention for individuals identified at high risk for ovarian cancer. NCCN guidelines recommend genetic testing for all women diagnosed with ovarian cancer. Cascade testing is when genetic testing is offered to family members of women with cancer who test positive for a hereditary mutation. Identifying women at high risk is important so that risk reducing strategies can be offered. Stand Up to Cancer's Ovarian Cancer Dream Team is in the process of opening two trials: MAGENTA (**MA**king **GEN**etic **T**esting more **A**ccessible), and WISP (Women choosing surgical prevention).

Dr. Usha Menon from University College London gave an update on the United Kingdom Collaborative Trial of Ovarian Cancer Screening (UKCTOCS) study. While population screening is not recommended at this time, a statistically significant stage shift was observed in the multimodal (MMS) arm. Follow up will be ongoing until 2018. For more information on the UKCTOCS study, including The FDA's Safety Communication which recommends against using screening tests for ovarian cancer screening: http://www.instituteforwomenshealth.ucl.ac.uk/womens-cancer/gcrc/ukctocs)

Advocate Note: Population screening is based on reducing overall mortality, not early stage diagnosis. Also, population screening is not a one-time stand-alone test, but a "continuing process" for healthy individuals who are not at high risk for that particular disease. For more information about screening principles, see this great primer from the Australian Cancer Council: http://wiki.cancer.org.au/policy/Principles_of_screening.

Dr. Katherine LaVigne of Memorial Sloan Kettering presented preliminary data suggesting HE4 age-based thresholds may be elevated when CA-125 is in the normal range at diagnosis or when CA-125 is no longer a good biomarker for detecting recurrence.

Ongoing work with circulating tumor cells (CTCs) was presented by Dr. Eva Obermayr from Medical University of Vienna, Dr. Carmen Ruiz of University of Southern California, and Dr. Rosana Risques from the University of Washington.

Dr. Elizabeth Poole of Brigham and Women's Hospital presented preliminary data regarding use of common medications from the Nurses' Health Study suggesting reducing inflammation after diagnosis by be beneficial.

Mechanisms of Initiation & Progression of Ovarian Cancer

Dr. Ronny Drapkin from Penn Ovarian Cancer Research Center presented an overview of high grade serous ovarian cancer originating from fallopian tube and the ongoing work to understand how STICs (serous tubal intraepithelial carcinoma) evolve to metastatic disease.

Dr. Laising Yen from Baylor College of Medicine presented ongoing work exploring fusion genes that are involved in genomic rearrangements in high grade serous ovarian cancer to identify possible targets for therapy.

Dr. Ernst Lengyel of the University of Chicago presented provocative preliminary data suggesting that in some cases STIC may represent metastasis to the fallopian tube.

Dr. Joana Burdette of the University of Illinois at Chicago presented ongoing work suggesting SCOUT (secretory cell outgrowth) lesions may be responsible for TP53 mutations which lead to STICs which then turn into high grade serous ovarian cancer.

Dr. Ken Nephew from the Indiana University School of Medicine presented ongoing work in animal models to develop therapeutics inhibiting HOTAIR-EZH2 for chemoresistant ovarian cancer.

Tumor Microenvironment & Models of Ovarian Cancer

Dr. Anil Sood from MD Anderson's presented ongoing work to overcome adaptive changes in the tumor microenvironment after exposure to therapeutics, including anti-angiogenics.

Dr. David Huntsman from the University of British Columbia and British Columbia Cancer Agency gave an overview of the origins and early development of ovarian cancer and discussed knowledge gaps that are barriers to improving prevention and treatment.

Ongoing work involving cancer stem cells (CSCs) and new cell screening technologies was presented by Dr. Lan Coffman from the University of Michigan, Dr. Katherine Fuh of Washington University School of Medicine, Dr. Benjamin Izar of Dana-Farber Cancer Institute, Dr. Daniela Matei of Northwestern University, and Geet Mehta of the University of Michigan.

Dr. Lilie Lin of the University of Pennsylvania presented initial preliminary studies of a PET tracer that may be used as a biomarker for PARPi and platinum sensitivity.

Novel Therapeutics for Ovarian Cancer

Dr. Mary Disis from the University of Washington presented an overview of immunotherapeutics for ovarian cancer and adaptive immunity, and described combination immunotherapy strategies that are being studied in ovarian cancer.

Dr. Scott Kaufmann from Mayo Clinic reported on several PARP inhibitor combinations currently being studied, some in heavily pre-treated platinum resistant disease.

Dr. Benjamin Bitler of the Wistar Institute presented data from studies of HDAC inhibition conducted in cell lines for clear cell ovarian cancer.

Dr. Anna Piskorz of CRUK Cambridge Institute University of Cambridge presented preliminary data using ctDNA to monitor response to Rucaparib.

Poster Session

Members of the Stand Up to Cancer Ovarian Cancer Dream Team, which includes ovarian cancer survivors Jamie Crase and Debra Polinsky along with veteran ovarian cancer patient advocate Kathleen Gavin, presented their poster summarizing the upcoming MAGENTA (**MA**king **GEN**etic **T**esting more **A**ccessible) trial. (See Magenta Poster)

Ovarian cancer survivors Shirley Pepke and Trudy Rucker presented their poster “Beyond Recist1.1: The need for alternative disease measurement criteria for clinical trials in ovarian cancer.” (See Beyond Recist Poster)