PRESS RELEASE

Provision and Utility of Genetic Testing for Ovarian Cancer in Malaysia

KUALA LUMPUR, [4 MAY 2016] – Recently, a Malaysian Study, published in the top women's cancer scientific journal Gynaecologic Oncology, shows one in nine ovarian cancer patients inherited the *BRCA1* or *BRCA2* mutation, calling for greater awareness for genetic testing among ovarian cancer patients.

The findings of the first comprehensive Asian study published in the journal of Gynaecologic Oncology suggest for the first time that Asian women with epithelial ovarian cancer should be provided genetic counseling and considered for testing for germline alterations in *BRCA1* and *BRCA2*. It was previously thought that the frequency of mutations was much lower in ovarian cancer compared to breast cancer patients, and that only individuals with a relative affected by breast or ovarian cancer was at risk of being a carrier. The study showed that 1 in 9 ovarian cancer patients are carriers, and notably, 4 in 10 carriers did not have any family history of breast or ovarian cancer. This means that the current practice of offering genetic counseling and genetic testing only to women with a family history would mean that 1 in 3 *BRCA1* carriers and 1 in 2 *BRCA2* mutation carriers would not be offered the information that could help to prevent cancers.

"To me, finding out whether there is a genetic risk to ovarian cancer enables women to be empowered to make choices that could save their lives, particularly for ovarian cancer where there is currently no good screening method," said **Professor Dr Teo Soo-Hwang**, Head of the Breast and Ovarian Cancer Research Programme at Cancer Research Malaysia and Adjunct Professor at the University of Malaya and the study's lead author.

"When I was diagnosed with ovarian cancer, I was in shock. No one else in my family had ovarian cancer. Now that I know it is because I have a BRCA1 mutation, I can guide my daughter in future so that she can manage her risk if she is a carrier too. I have told my relatives too so that they can be warned and can have genetic testing if they want." said **Mdm A**, who was diagnosed with ovarian cancer at the age of 47 and participated in the research programme.

In line with new findings and compelling evidence from many other studies, the Malaysian Oncological Society of Malaysia, the Obstretician and Gynaecological Society of Malaysia and the Malaysia Gynaecological Cancer Society has issued a joint statement for the Provision and Utility of Genetic Testing for Ovarian Cancer in Malaysia.

The summary of the joint statement states that:

1. **Genetic Testing for *BRCA1* and *BRCA2* for Women with Epithelial Ovarian Cancer**

a. Nine to fifteen percent (9-15%) of women with invasive ovarian cancer and a significantly higher proportion of women with fallopian tube or peritoneal cancer carry germline alterations in *BRCA1* and *BRCA2*.
b. Approximately one-third of *BRCA1* and *BRCA2* carriers have no close relatives affected with cancer and approximately one-third are older than 60 years at the time of diagnosis.
c. Pre- and post-test genetic counselling is recommended to enable accurate comprehension of genetic test results and its implications and to enable informed decision-making.
d. The gold standard for genetic testing is a comprehensive mutation test of all exonic regions, intron-exon junctions and including a method for detection of large chromosomal abnormalities. Predictive testing can be offered for a known mutation in the family.

Genetic counselling and testing can be offered to all women diagnosed with epithelial ovarian, tubal and peritoneal cancer regardless of family history and age.

2. **Risk management for carriers of germline alterations in *BRCA1* or *BRCA2***
   a. Germline alterations in *BRCA1* and *BRCA2* confer an increased risk to breast and ovarian cancer, with average cumulative risks for ovarian cancer by age 70 years of 39-40% in *BRCA1* mutation carriers, and 11-18% in *BRCA2* mutation carriers, compared to only 1.4% in the average Caucasian women (8-10).
   b. Early ovarian cancer is asymptomatic and the available techniques have not been demonstrated to be effective for early diagnosis. Intensive screening for ovarian cancer in BRCA carriers is therefore not supported because of the current limitations in sensitivity and specificity of transvaginal ultrasounds and/or measurement of serum CA125 level.
   c. Risk reducing salpingo-oophorectomy (RRSO) is therefore strongly recommended to BRCA1/2 mutation carriers once childbearing is complete (12)(13)(14).

3. **Treatment for carriers of germline alterations in *BRCA1* or *BRCA2***
   Use of PARP inhibitors in *BRCA*-related ovarian cancer may be considered

"We are starting to see the beginning of personalized medicine using genetic information and we hope that this joint statement will provide a guide on the use of BRCA testing in oncology and precision medicine, " said **Dr Matin Mellor Abdullah, President, Malaysian Oncological Society (MOS)**

"Risk management strategies are well defined for BRCA carriers, so knowing our patients' status will help us manage their risk and define treatment options. This joint statement provides information about BRCA testing for ovarian cancer which will be useful for clinicians treating this disease" said **Dr Suresh Kumarasamy, - Chairman of the Gynaecological Oncology Sub-committee and Past President of the Obstetrical and Gynaecological Society of Malaysia (OGSM)**

Cancer Research Malaysia (510087-M), **2nd floor, Outpatient Centre, Sime Darby Medical Centre, 47500 Selangor**
T 603 5639 1874 F 603 5639 1875 E info@cancerresearch.my W www.cancerresearch.my

"While in Malaysia, facilities for genetic testing to detect and treat ovarian cancer are still in its early stage, efforts are currently underway to expand the service. These include collaborative research initiatives, and the timely release of the Joint Statement for the provision and utility of genetic testing for women with ovarian cancer in Malaysia. The good news is that early diagnosis and detection greatly improves a woman's chance of treatment and survival from ovarian cancer." said **Dr Vicknesh Visvalingam, Vice-President, Malaysian Gynaecological Cancer Society (MGCS)**

ENDS

Notes to editor

Evaluation of germline *BRCA1* and *BRCA2* in an Asian cohort of ovarian cancer patients.
Hanis N Hasmad, Kah Nyin Lai, Wei Xiong Wen, Daniel J Park, Tu Nguyen-Dumont; Peter Choon Eng Kang; Eswary Thirthagiri; Mahirah Ma'som; Boon Kiong Lim, Melissa Southey; Yin Ling Woo, Soo Hwang Teo. Gynae Oncology (2015) (in press)

About Cancer Research Malaysia

Cancer Research Malaysia (formerly known as Cancer Research Initiatives Foundation) is the first independent cancer research organization in Malaysia. Cancer Research Malaysia conducts research to identify better ways to prevent, detect and cure cancer for Malaysians. Cancer Research Malaysia is committed to ensuring that at least 90% of funds received are spent on research. Cancer Research Malaysia researchers work closely with experts worldwide to fight cancers that occur in Asia as well as globally.

About University Malaya

University Malaya High Impact Research is funded under a special grant by the Ministry of Higher Education Malaysia. Its aim is to conduct research that will lead to publications in top international journals which will help UM get into the top 100 QS World Ranked Universities by 2015. The Ovarian Cancer Research Programme is headed by Prof. Dr Woo Yin Ling and Assoc. Prof. Lim Boon Kiong and is part of the University Malaya Cancer Research Institute.

For further information, please contact:

Rafizah Amran
Head of Communications
Cancer Research Malaysia
T 603 5639 1965
E rafizah.amran@cancerreseach.my

Kavita Balasubramaniam
Senior Events & Public Relations Advisor
Cancer Research Malaysia
T 603 5639 1970
E kavita.bala@cancerresearch.my

Harris Rajahdin
Media Officer
University Malaya
T 603 7967 7902
E harris@um.edu.my