

MERMAID I

Ovarian Cancer

A comprehensive, multidisciplinary research project

Evaluation by

The Independent Audit Committee for Mermaid

of

The final Scientific Progress Report

December 2010

Evaluation of The Final Scientific Progress Report December 2010 for the project MERMAID "Ovarian Cancer – A comprehensive, multidisciplinary research project"

The Independent Audit Committee (IAC)

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has the pleasure to forward the evaluation of The Final Scientific Progress Report December 2010 for the project MERMAID "Ovarian Cancer – A comprehensive, multidisciplinary research project". This is the fifth evaluation by the IAC, the first evaluation was performed November 2005.

MERMAID I was initiated due to the observation of an unacceptable high mortality rate of ovarian cancer, which makes it the most lethal gynaecological cancer. Unfortunately the highest incidence occurs in the Scandinavian countries with Denmark in the top. Consequently, the aim of the study was to identify environmental, lifestyle and genetic risk markers for ovarian cancer that can be used to identify women in the population that are at greatest risk of ovarian cancer, and to implement screening programmes for either prevention or early detection of the disease; and to save lives. Also the researchers aimed to find new markers of ovarian cancer development in patients that already have the disease in order to find ways to treat the disease more effectively and to identify novel targets that could lead to the development of new therapies. The project is therefore of utmost clinical importance.

The IAC has now received the fifth and final report from this project and it is timely to answer the question: "Has this initiative and the investment been worth while?". The IAC can conclude, without hesitation, that this has been one of the most important and productive scientific initiatives within the field of gynecological cancer research. The Mermaid I has not only produced new knowledge for the benefit of women bearing the risk of or with ovarian cancer, but also set the scene for the future scientific activity within this area. A detailed and thorough description has been forwarded in the "MERMAID I Final Report, December 2010" including a list of publications.

Key achievements:

- The detailed characterization of BRCA1 and BRCA2 genes in the Danish population, using samples from the MALOVA study, has not only positive clinical implications for the families affected, but adds also important new knowledge to the hereditary aspects of the ovarian cancer. The recognition of different debut of cancer in the mutated population compared to the non-mutated group is of great importance for the diagnosis of ovarian cancer in the younger group of patients. BRCA 1 and 2 mutations were also of importance for both breast-and prostate cancers.

- A unique collaboration between Denmark, UK and USA comprising more than 30 different groups has resulted from the MERMAID I. To day this consortium has identified and enclosed 2,500 cases and 3,000 controls taking advantage also of the Danish MALOVA collection of ovarian cancers. This united material is an almost inexhaustible source for new knowledge regarding genetic and lifestyle/environmental risk factors for ovarian cancer. To day the group has published the discovery of several novel genetic risk factors for ovarian cancer and will continue to study the influence of environmental parameters. This is crucial for the future counselling of women.
- Genetic studies have also been used to identify several new genetic markers to be used to monitor and improve the outcome of the cancer treatment. The array analyses of gene expression differences between cancer and normal tissue has allowed identification of gene signatures for tumor tissue. In addition the analysis has identified six chromosome loci susceptible to genetic modifications.
- The development of state of the art technologies that will enable clinical testing of ovarian cancers is another achievement. The study has adapted high throughput technologies such as array studies of various kinds. Important is the finding that a set of genetic events can distinguish between patients with good and bad prognosis. This is another step in the direction of focused individualized cancer treatment.
- The molecular profiling studies of ovarian cancer cell lines and primary ovarian cancers have identified candidate genes which can be putative therapeutic targets.
- Organizational initiatives are an important aspect of to days front line research. The participants in MERMAID I have contributed substantially to networking and international collaboration. They have contributed to establishment of two consortia –The Ovarian Cancer Association Consortium (OCAC) and The Tissue Ovarian Cancer Association Consortium (TOCAC). Without an international effort we will not be able to solve the challenges of gynecological cancers which can lead to better overall survival.
- The high quality and productivity of the group is evidenced and is documented by the long list of publications in international, high ranking journals. The MERMAID I has resulted in more than 70 publications, and within the last year 16 papers are published. Indeed an impressive yield. Also the raising of more than £ 12 M in additional funding is compelling IAC's respect.

Although the MERMAID I project has not solved the enigma of ovarian cancer, we have witnessed a project with an extremely high output of top quality scientific results. The MERMAID I project has therefore not only been of immediate benefit to the women of our time, but also to our children and future generations.

On this background the IAC can only congratulate both the researchers and the MERMAID I initiators with the impressive results.

On behalf of the Independent Audit Committee for MERMAID.

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