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## Genomic Marker of Ovarian Cancer To Follow Disease Progression

Reference: VAL-670-CHUM

**Keywords:** Epithelial Ovarian Cancer (EOC), Prognostic Treatment of EOC, BTF4

### Background



Epithelial ovarian cancer (EOC) is the fifth leading cause of cancer-related death among women and represents the most lethal gynaecological cancer. Unfortunately, more than 70% of EOC affected patients are diagnosed at an advanced stage, once cancer has already spread to secondary sites. Standard treatment of EOC usually consists of surgery followed by chemotherapy. However, disease relapse is often observed and tumours become resistant to standard chemotherapy. It was demonstrated that a more aggressive intra-peritoneal chemotherapy treatment is more effective and increase the survival rate of EOC patients. However, since high toxicity levels are associated with such treatments, it is not recommended to use it routinely. In order to select the appropriate treatment and increase survival rate of EOC patients, it would be of great interest to identify genomic markers allowing disease progression to be followed more precisely.

### Technology

This technology is related to BTF4/BTNA3.2 gene which is differentially expressed in tissues coming from EOC patients who were subjected to an early or late relapse after surgery.

### Results

A microarray analysis was completed using samples of 17 EOC patients allowing the identification of 34 genes differentially expressed in tissues coming from EOC patients who were subjected to an early (within 18 months) or late (more than 24 months or no relapse) relapse after initial diagnostic. A subset of markers was then validated by statistical analysis (Kaplan-Meier and Cox Regression) and RT-qPCR analysis further validated the expression profile of 6 genes. Within these candidates genes,

BTF4/BTNA3.2 (a member of the immunoglobulin super family sub-class) was found to be closely associated with a severe prognosis. Results were then validated by an independent analysis performed on 41 tumours.

### Applications

- Prognostic or therapeutic kit for EOC
- Monitoring treatment efficacy
- Tools for EOC patients stratification

### Competitive Advantages

- Fulfill unmet needs of EOC treatment
- Reduction of patients side effects related to unnecessary treatments
- Lowers healthcare costs
- Produces quantitative results

### Patent Status

US pending application filed (Q3/2008)

### Business Opportunity

Univalor is seeking partners for a licence agreement or contract.

### Contact

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