

The Realisation of Research

# **DNA Methylation Markers for Prediction of Cancer Risk**

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Category(s):

Cancer/Oncology Medical

**Description:** 

**Markers for Prediction of Cancer Risk** 

Available for: Co-development and licensing

### Summary

UCL researchers have identified unique DNA methylation signatures in patient serum that have the potential to indicate breast cancer risk up to five years in advance of clinical diagnosis.

#### The Technology and its Advantages

Aberrant DNA methylation is a hallmark of cancer. UCL researchers have demonstrated for the first time that DNA methylation present in a subset of genes is predictive of cancer risk.

These markers were measured in serum DNA from healthy postmenopausal women (aged 50-75 years) of low genetic breast cancer risk in a nested prospective case control design within the UK Collaborative Trial for Ovarian Cancer Screening encompassing serum DNA samples from over 200,000 women.

Importantly UCL researchers have identified unique DNA methylation signatures in patient serum that have the potential to indicate breast cancer risk up to five years in advance of clinical diagnosis.

#### **Market Opportunity**

The markers developed by UCL serve as a solid basis to develop DNA methylation based tests to predict chronic diseases like cancer. Currently SNP and epidemiological models are of limited value when predicting breast cancer risk. As well as being independent risk predictors there is potential of the DNA methylation tests to complement genetic and epidemiological models to predict breast cancer risk.

## **Intellectual Property Status**

A GB patent application was filed on 4th February 2011.

## **Furtner Information**

Please contact Dr. Chris Williams, UCL Business PLC, T: +44 (0)207 679 9000 E: c.williams@uclb.com

## For Information, Contact:

Chris Williams Business Manager UCL Business PLC 020 7679 9000 c.williams@uclb.com

### Inventors:

Martin Widschwendter Ian Jacobs Andrew Teschendorff

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