

Research could help improve early diagnosis of prostate cancer

February 25 2014

Prostate cancer patients could get better diagnosis and treatment for the disease in the future thanks to a successful research project at the University of Essex.

Currently, is it difficult to distinguish between benign and aggressive malignant tumours, meaning some prostate cancer patients are unnecessarily "over-treated" which can lead to needless distress and anxiety.

Scientists in this field have been looking to find biomarkers to distinguish between the two types of tumours, and now prostate cancer experts at Essex have found an important link between the molecule known as BORIS and malignant tumours.

The research, published in the February issue of the journal *Prostate*, could lead the way for pathologists to have better tools for the early diagnosis of prostate cancer and for patients to get the most appropriate level of treatment for them.

The major three-year study involved the University-based Essex Biomedical Sciences Institute (EBSI) working with the Colchester Catalyst Charity and the Urology and Pathology Departments at Colchester Hospital University NHS Foundation Trust.

Leading the project at Essex was Professor Elena Klenova, who was part of the scientific team which first discovered BORIS in 2002 and its

importance in prostate cancer research.

"Apart from playing an important role in the development of sperm in men, BORIS is not usually expressed in the body," explained Professor Klenova, "However, it does appear in malignant tumours, which is why it is seen as an important molecule in the development of cancer. It also can help distinguish between normal and cancerous cells".

Prostate cancer is the most common type of cancer in men. Around 37,000 UK men are diagnosed with the disease each year. Many [prostate cancers](#) develop very slowly, but in a small proportion of cases the cancer grows more quickly and spreads to other areas of the body, sometimes proving fatal.

The research was co-funded by the Colchester Catalyst Charity as part of its ongoing mission to improve the health care of people living in north-east Essex. However, the study's findings obviously have a wider impact generally for the treatment and the understanding of prostate cancer.

Professor Klenova's team at Essex, which included Zubair Cheema and Yukti Hari-Gupta, sponsored by Colchester Hospital University NHS Foundation Trust and the Colchester Catalyst Charity, respectively, looked at levels of BORIS in benign and malignant tumours and found that it was only present in malignant tumours, suggesting that the molecule could prove to be a useful biomarker for aggressive symptoms of the disease.

John Corr, consultant urological surgeon at Colchester Hospital University NHS Foundation Trust, said: "Collaborative work like this between a university and an acute hospital trust is a very under-utilised resource in the NHS, and I am very happy to be involved in it.

"This is a very exciting finding and will help in our daily fight against prostate cancer.

"It may more accurately identify those patients that need active treatment and aid in predicting long-term outcomes."

The scientists will now investigate the link between BORIS and malignant tumours further with a bigger study.

Provided by University of Essex

Citation: Research could help improve early diagnosis of prostate cancer (2014, February 25) retrieved 10 April 2024 from

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