

# Prostate cancer prognosis hope

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Cancer of the prostate – the most common male cancer in the UK – presents in two distinct ways: a low-risk type, which may never cause any symptoms, and a high-risk form that needs treatment to prevent it spreading to other parts of the body.

Knowing which type of [prostate cancer](#) each patient has – some 40,000 British men per year – is therefore essential to ensuring they receive the correct treatment.

Lead researcher Dr Angeliki Malliri, from the University of Manchester's Paterson Institute for Cancer Research, said: "Prognosis tells, or biomarkers, give doctors an indication of how a patient will fare after treatment. In prostate cancer, biomarkers that help differentiate between the low-risk and high-risk types of cancer are crucial to decide if and what type of treatment a patient needs."

The study, funded by Cancer Research UK and published in the journal [Nature Cell Biology](#), identified the protein  $\beta$ 2-syntrophin as a new prognosis marker for prostate cancer. The team, part of the Manchester Cancer Research Centre (MCRC), discovered that the protein is involved in establishing tight connections between cells, which are crucial for holding them together to maintain tissue structure and prevent tumours from spreading.

Co-author Dr Natalie Mack said: "We showed that when  $\beta$ 2-syntrophin is lost from these cell-to-cell connections, the cells become disorganised and this is what happens in cells from prostate cancer samples,

potentially helping them to spread.

"Our findings indicate that the loss of  $\beta$ 2-syntrophin at cell-to-cell connections in the prostate is an indicator of [prostate cancer progression](#) and patients with reduced levels of this protein at these cell-to-cell connections are more likely to have a recurrence of their cancer after treatment."

The authors say their results suggest that  $\beta$ 2-syntrophin is a new prognosis marker in prostate cancer and that it should be further explored to distinguish between low- and high-risk level disease. Improved understanding and use of [prognosis](#) markers is essential to help guide clinical decisions and to ensure that patients get the best type of treatment for their type of cancer.

Dr Julie Sharp, senior science information manager at Cancer Research UK, said: "To treat prostate cancer more effectively, we need to understand more about how the disease develops and how to recognise more advanced types. This research provides another piece of the puzzle and further work will confirm whether this molecule could be useful in making better predictions about prostate cancer."

Provided by University of Manchester

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