

# New biomarker for bowel cancer could help predict if disease will spread

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Scientists have identified a protein that could play a crucial role in recognising whether bowel cancer patients need chemotherapy as there is a high risk of their bowel cancer spreading, according to a new study<sup>1</sup> published in the *British Journal of Cancer*.

Scientists at the University of Southampton, part-funded by the Medical Research Council and Cancer Research UK, found that patients with low levels of the protein, known as FOXO3, had an increased risk of their cancer spreading to other parts of the body.

By comparing levels of FOXO3 in tissue samples from patients with different stages of [bowel cancer](#) the researchers found the protein was a good predictor of how aggressive a tumour is – decreasing levels of the protein were linked to more aggressive cancers.

Mr Marc Bullock, study author, MRC Clinical Research Training Fellow and bowel cancer surgeon at Southampton General Hospital, said: "Our findings suggest that looking at levels of FOXO3 could help single out which patients need extra treatment to help stop their cancer from coming back, as well as being a good potential target for drug development. Although other studies have looked at the role of FOXO3 in stopping tumours growing, this is the first time that such a clear link between levels of the [protein](#) and tumour growth has been identified."

Mr Alexander Mirnezami, co-author and bowel [cancer surgeon](#) at Southampton General Hospital said: "As our research continues, we hope

to identify lots of other new biomarkers that can help us adapt treatments based on individual patients' tumour characteristics as part of a personalised approach to [cancer treatment](#)."

Dr Julie Sharp, senior science communications manager at Cancer Research UK, said: "This fascinating new finding could help doctors tackle the problem of bowel cancer spread. Although levels of FOXO3 alone are not enough to accurately predict whether a patient's cancer will return, the authors' highlight several other potential [biomarkers](#) that, alongside FOXO3, could offer a powerful new tool to help doctors decide the best way to treat patients."

Provided by Cancer Research UK

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