

Scientists move closer to pinpointing gene involved in bowel cancer spread

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Scientists may be on the cusp of pinpointing a gene that is involved in the progression and spread of bowel cancer, indicates research published ahead of print in the *Journal of Medical Genetics*.

If proved correct, the discovery could open up the possibility of new preventive or treatment options, say the authors.

[Bowel cancer](#) is the third most common cancer in the UK and the second leading cause of cancer death in the US.

Up to a third of bowel cancer cases are thought to be linked to inherited [genetic factors](#), but in 25% of cases the genetic faults/variants are not known.

The researchers analysed the genetic profiles of a large family of 81 members spanning five generations, whose details were entered on the Utah Population Database.

This genealogical database holds 7.5 million records, linked to other important health data, including state-wide cancer registries.

This particular family did not have the genetic faults/variants associated with the known inherited syndromes implicated in 5% of bowel cancers.

Instead, [genetic analysis](#) identified the long arm of chromosome 13

(13q), which was significantly associated with the incidence of bowel polyps (precancerous growths) or bowel cancer among family members.

Three family members had bowel cancer, two of which had already spread to other parts of the body when they were diagnosed at the ages of 42 and 35. A further nine family members and two spouses had bowel polyps.

Although 13q has not yet been identified as being linked to bowel cancer, this chromosome is often overexpressed in 30%-50% of primary bowel cancers, say the authors.

Genes within this chromosome are thought to play a key role in the progression and spread of bowel cancer, but none has been precisely identified as yet.

This is backed up by the finding that simple polyps seem to have rapidly advanced to invasive bowel cancer in this family as none had the intermediate type of polyp.

Once a gene has been identified and it is also found to be involved in sporadic rather than inherited cases of bowel cancer, it opens up the potential for new preventive and treatment approaches, say the authors.

More information: *Journal of Medical Genetics* - www.jmg.bmj.com

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