



SINGLE GENE TARGET COULD BOOST BOWEL CANCER SURVIVAL BY THREE MONTHS

Scientists have discovered a genetic region linked to survival in patients with advanced bowel cancer, according to a study being presented at the National Cancer Research Institute (NCRI) Cancer Conference today (Tuesday)*.

The researchers found that advanced bowel cancer patients with specific faults in this region survived on average three months less than those without the faults.

They believe the genetic region may boost the activity of a nearby gene – called EIF3H – which has previously been linked to poor survival in other cancers.

Developing drugs to block EIF3H could be an effective way of boosting survival in some patients with advanced bowel cancer in the future.

Chris Smith**, a Cancer Research Wales funded scientist at Cardiff University's Institute of Medical Genetics, said: "This is the first genetic region identified through genome wide association studies shown to influence both survival and response to treatment in patients with advanced bowel cancer.

"Faster and cheaper genomic technologies are making it easier than ever before to pinpoint genes linked to bowel cancer risk. Understanding how these lead to cancer is the first and most important step in being able to develop more targeted treatments tailored to an individual's genetic makeup."

The researchers searched through the genomes of over 2,000 patients who had participated in a clinical trial***, which looked at different chemotherapy treatments for advanced bowel cancer. These were compared to genetic data from similar numbers of healthy volunteers.

The researchers looked specifically at 22 genetic regions already linked to bowel cancer risk in genome wide association studies. Of these they found one that strongly influenced survival and treatment response in these patients. This was regardless of which treatment they received, suggesting that the treatment type was not the reason for the reduced survival rates.

Dr Ian Lewis, Head of Research at Tenovus, who part funded the study, said: "These findings are very exciting as they not only open the door to more individually tailored treatment for patients with bowel cancer, they also highlight a potential target for new therapies that could ultimately increase survival in patients with an advanced disease."

ENDS

For media enquiries please contact the NCRI press office on 020 3469 8300 or, out-of-hours, the duty press officer on 07050 264 059

Notes to Editors:

* Smith C. et al. A novel colorectal cancer susceptibility SNP in the EIF3H promoter influences patient survival and response to treatment.

Conference abstract: <http://www.ncri.org.uk/ncriconference/2010abstracts/abstracts/A133.htm>

** Chris Smith was awarded a bursary from the NCRI to attend the conference, based on the quality of his research.

*** The MRC COIN trial led by Timothy Maughan, Professor of Cancer Studies at the School of Medicine in Cardiff University.

The researchers are based at Cardiff University's Institute of Medical Genetics, and worked in collaboration with the MRC's Clinical Trials Unit and other clinical colleagues.

This work was supported by Cancer Research Wales, Tenovus and the Wales Gene Park.

About Cardiff University

Cardiff University is recognised in independent government assessments as one of Britain's leading teaching and research universities and is a member of the Russell Group of the UK's most research intensive universities. Among its academic staff are two Nobel Laureates, including the winner of the 2007 Nobel Prize for Medicine, University President Professor Sir Martin Evans.

Founded by Royal Charter in 1883, today the University combines impressive modern facilities and a dynamic approach to teaching and research. The University's breadth of expertise in research and research-led teaching encompasses: the humanities; the natural, physical, health, life and social sciences; engineering and technology; preparation for a wide range of professions; and a longstanding commitment to lifelong learning. Three major new Research Institutes, offering radical new approaches to neurosciences and mental health, cancer stem cells and sustainable places were announced by the University in 2010.

www.cardiff.ac.uk

About Tenovus

At Tenovus our aims are simple: to help prevent, treat and find a cure for cancer. In doing that we offer support, advice and treatment for cancer patients, information on cancer prevention and funding for research to improve the outcomes for people with cancer. We do this where it is needed most – right at the heart of the community.

About the NCRI Cancer Conference

The National Cancer Research Institute (NCRI) Cancer Conference is the UK's major forum for showcasing the best British and international cancer research. The Conference offers unique

www.ncri.org.uk/ncriconference

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opportunities for networking and sharing knowledge by bringing together world leading experts from all cancer research disciplines. The seventh annual NCRI Cancer Conference is taking place from the 6-9 November 2011 at the BT Convention Centre in Liverpool. For more information visit www.ncri.org.uk/ncriconference

About the NCRI

The National Cancer Research Institute (NCRI) was established in April 2001. It is a UK-wide partnership between the government, charity and industry which promotes co-operation in cancer research among the 21 member organisations for the benefit of patients, the public and the scientific community. For more information visit www.ncri.org.uk

NCRI members are: the Association of the British Pharmaceutical Industry (ABPI); Association for International Cancer Research; Biotechnology and Biological Sciences Research Council; Breakthrough Breast Cancer; Breast Cancer Campaign; Cancer Research UK; CHILDREN with LEUKAEMIA, Department of Health (England); Economic and Social Research Council; Leukaemia and Lymphoma Research; Ludwig Institute for Cancer Research; Macmillan Cancer Support; Marie Curie Cancer Care; Medical Research Council; Northern Ireland Health and Social Care (Research & Development Office); Roy Castle Lung Cancer Foundation; Scottish Government Health Directorates (Chief Scientist Office); Tenovus; Welsh Assembly Government (Wales Office of Research and Development for Health & Social Care); The Wellcome Trust; and Yorkshire Cancer Research.