

PRESS RELEASE

Monday 6 November, 2017

TEST COULD DIAGNOSE OESOPHAGEAL CANCER 8 YEARS EARLIER

A new genetic test could help diagnose oesophageal cancer up to 8 years before symptoms appear in people at a high risk of the disease, according to new research presented* at the National Cancer Research Institute's (NCRI) Cancer Conference in Liverpool today (Monday).

University of Cambridge** researchers looked at tissue samples from people with Barrett's oesophagus – a common condition of the food pipe that can develop into cancer in around 5% of people.

They retrospectively identified predictive genetic markers in 94% of people who later developed early signs of oesophageal cancer and were able to spot these markers in samples that had been taken many years before symptoms appeared.

Samples used in the study had been taken during routine endoscopies for Barrett's oesophagus over a period of 15 years. To develop their test the researchers compared the markers between 45 patients who went on to develop early signs of oesophageal cancer and 45 who did not.

There are no tests that accurately predict the small number of people who have Barrett's oesophagus who go on to develop cancer. Instead, almost all people with the pre-cancerous condition have endoscopies every few years.

But, this new test could mean people with high risk genetic patterns can be closely monitored for early signs that cancer will develop, helping diagnose the disease earlier when treatment is more likely to be successful. This also means the majority of people who are at a low risk of developing oesophageal cancer could have far fewer endoscopies.

Professor Rebecca Fitzgerald, lead researcher based at the University of Cambridge MRC Cancer Unit, said: "Many people with oesophageal cancer are diagnosed when their disease has already spread and is harder to treat. Testing for these new markers during regular checks could help identify people who have a high chance of developing oesophageal cancer. The next step is to test this approach in clinical trials to see if our approach helps diagnose oesophageal cancer sooner when treatment is more likely to be successful."

Professor Matt Seymour, the NCRI's clinical research director, said: "Survival for cancer of the gullet remains stubbornly low, and we face big challenges in diagnosing the disease earlier when it is more likely to be treated successfully. Studies like this not only mean we may be able to identify the disease earlier, but may also reveal more about the disease itself. It could be that, as well as helping predict who will develop the disease, these genetic markers could point the way to new treatments."

The research was funded by the Medical Research Council, and received infrastructure support from the Cambridge Human Research Tissue Bank, which is supported by the National Institute for Health Research (NIHR) Cambridge Biomedical Research Centre, and the Experimental Cancer Medicine Centre.

ENDS

NCRI Press Office

Angel Building
407 St John Street
London EC1V 4AD
T: +44 (0)20 3469 8300
T: +44 (0)7050 264 059
(out of hours)
E: press@ncri.org.uk

www.ncri.org.uk

For media enquiries contact Simon Shears in the NCRI press office on 0203 469 8054 or, out of hours, on 07050 264 059

Notes to editors

*Predicting oesophageal cancer progression using genomic information in pre-malignant oesophageal tissues - <http://abstracts.ncri.org.uk/abstract/predicting-oesophageal-cancer-progression-using-genomic-information-in-pre-malignant-oesophageal-tissues/>

**The research was conducted by Sarah Killcoyne and Eleanor Gregson under the supervision of Professor Rebecca Fitzgerald

About the NCRI

The National Cancer Research Institute (NCRI) is a UK-wide partnership of cancer research funders, established in 2001. Its 19 member organisations work together to accelerate progress in cancer-related research through collaboration, to improve health and quality of life.

NCRI works to coordinate research related to cancer, to improve the quality and relevance of the research and to accelerate translation of the research into clinical practice for the benefit of patients.

NCRI Partners are: Biotechnology and Biological Sciences Research Council; Bloodwise; Breast Cancer Now; Cancer Research UK; Children with Cancer UK, Department of Health; Economic and Social Research Council (ESRC); Macmillan Cancer Support; Marie Curie; Medical Research Council (MRC); Northern Ireland Health and Social Care Public Health Agency (Research & Development Department); Pancreatic Cancer Research Fund; Prostate Cancer UK; Roy Castle Lung Cancer Foundation; Scottish Government Health Directorates (Chief Scientist Office); Tenovus Cancer Care; The Wellcome Trust; Welsh Assembly Government (Health and Care Research Wales); and Worldwide Cancer Research.

For more information visit www.ncri.org.uk

The **Medical Research Council** is at the forefront of scientific discovery to improve human health. Founded in 1913 to tackle tuberculosis, the MRC now invests taxpayers' money in some of the best medical research in the world across every area of health. Thirty-two MRC-funded researchers have won Nobel prizes in a wide range of disciplines, and MRC scientists have been behind such diverse discoveries as vitamins, the structure of DNA and the link between smoking and cancer, as well as achievements such as pioneering the use of randomised controlled trials, the invention of MRI scanning, and the development of a group of antibodies used in the making of some of the most successful drugs ever developed. Today, MRC-funded scientists tackle some of the greatest health problems facing humanity in the 21st century, from the rising tide of chronic diseases associated with ageing to the threats posed by rapidly mutating micro-organisms. www.mrc.ac.uk

NCRI Press Office

Angel Building
407 St John Street
London EC1V 4AD
T: +44 (0)20 3469 8300
T: +44 (0)7050 264 059
(out of hours)
E: press@ncri.org.uk

www.ncri.org.uk