Bowel cancer (also known as colorectal cancer) remains the second highest cause of cancer mortality in the UK. Research in Bristol focuses on understanding molecular pathways that are important for driving colorectal cancer progression with the aim of reducing the incidence of, and improving the outcome for, patients diagnosed with bowel cancer. Research from the team in Bristol has focused on cancer prevention for a number of years, contributing to institutions such as the NHS, the National Institute for Health Research (USA) and the Mayo Clinic (USA), encouraging people to eat a high fibre diet to reduce the risk of bowel cancer. The University of Bristol’s Colorectal Tumour Biology (CTB) group, led by Ann Williams, Professor of Experimental Oncology, continues to participate in international clinical prevention trials assessing the use of aspirin in people at increased risk of developing bowel cancer (CAPP3). The CTB group are investigating signalling pathways (normally involved in inflammation) that are permanently switched on in a subset of cancer cells, driving stem cell plasticity and tumour cell survival. In addition, they are looking to see whether (if used in conjunction with conventional therapy) non-steroidal anti-inflammatory drugs such as aspirin can improve the response of these resistant tumours to treatment. The CTB group’s research uses unique human colorectal model systems to derive new insights that are then validated in patient-based clinical trials through partnership with the University Hospitals Bristol NHS Foundation Trust. This research aims to understand the mechanisms that drive early tumorigenesis and how they impact on the response of colorectal cancers to conventional therapies. [www.bristol.ac.uk/cellmolmed/research/cancer/cruk-ctb.html](http://www.bristol.ac.uk/cellmolmed/research/cancer/cruk-ctb.html)