



Standard Life 'In the Community'*

Recipients from donations to the Standard Life Charity Fund 2007

Colorectal (Bowel) Cancer Unit, Edinburgh University (based at the Western General NHS Trust) - to receive 65% of funds raised.

Bowel cancer, also called colorectal cancer, is the third most common cancer in men, and the second most common cancer in women in the UK. Each year, there are about 18,700 new cases of bowel cancer in men, and nearly 16,200 cases in women.

Over 10% of the total numbers of new cases in the UK are diagnosed each year in Scotland alone, giving it one of the highest rates of bowel cancer in the world. Around 22,000 people in the UK die each year from colorectal cancers.

Professor Malcolm Dunlop from the University of Edinburgh heads a team of scientists at the Colorectal Cancer Unit who are searching for the genetic and environmental factors that cause this disease. Professor Dunlop is also a practicing colorectal surgeon at the Western General NHS Trust, Edinburgh.

A significant proportion of bowel cancer cases have an inherited component. Individuals that inherit a faulty Mismatch Repair (MMR) gene from one or both parents are at increased risk of developing bowel cancer, as well as certain other cancers, including womb, ovarian and stomach cancer. In fact, the likelihood of someone carrying a faulty MMR gene developing any type of cancer by the age of 70 is over 90% for men, and nearly 70% for women. Furthermore, these people often develop cancer at an earlier age than the general population.

There are thought to be around 1,500 carriers of MMR gene defects in Scotland, and 15,000 carriers in the UK as a whole. If identified, these people can be referred to genetics specialists and offered bowel screening and advice on prevention. Professor Dunlop and his team are screening all new Scottish bowel cancer patients diagnosed

before the age of 55 for faults in certain genes known to be involved in bowel cancer, including MMR genes. This will help identify families where other members may be at high-risk of developing the disease. These people can then be offered help to reduce the risk. Identifying individuals at high-risk of developing bowel cancer enables preventative measures to be developed and targeted to those who are most vulnerable.

One of the most immediate and direct benefits of Professor Dunlop's work has been for the patients involved in the screening study and their families. A number of individuals with MMR defects were identified through this work that would not have otherwise been discovered. Many of these individuals and other at-risk family members have been referred to genetics centres, allowing them to be advised about their risk and undergo screening and prevention measures accordingly.

As well as the screening study, Professor Dunlop and his team are carrying out important laboratory-based projects. They are aiming to discover more about the function of MMR genes involved in bowel cancer, as well as identifying new genes. The researchers are also investigating potential ways to prevent bowel cancer. They are studying the preventative properties of aspirin-like drugs known as Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), and discovering how they might function together with a person's genes to reduce the risk of bowel cancer.

Professor Dunlop and his team also regularly publish findings from their research in international scientific journals, so they can be shared with the global medical community. Although this work is being carried out in Scotland, the information obtained is also informing the development of UK-wide screening strategies and genetic counselling provision.

In summary, fundraising by Standard Life employees for the Colorectal Cancer Unit is vital. It will enable them to continue their research into the causes, prevention, screening and treatment of bowel cancer. The work of the Colorectal Unit will benefit everyone who has this disease, regardless of where they live.

For more information please visit the Cancer Research website at <http://www.cancerresearchuk.org/>.

* (part of [Standard Life's Corporate Responsibility programme](#))