Can curry prevent bowel cancer?
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In our laboratory, we have shown curcumin, a component of turmeric, commonly used in curries, is able to specifically attack cancer stem cells.

Not only this, curcumin attacks cancer stem cells, in pre-cancerous tissues.

In mice with bowel cancer, those eating food containing curcumin, lived longer than those who didn’t.

What is cancer?
Cancer is a growth of abnormal cells. Some cells have an ability to ‘escape’ death despite cancer treatment. These cells are called ‘cancer stem cells’. Research to try and attack these cells which maintain cancer is critical to treating cancer.

But curry?!!
Not only this, curcumin attacks cancer stem cells, in pre-cancerous tissues.

In mice with bowel cancer, those eating food containing curcumin, lived longer than those who didn’t.

MY RESEARCH AIM:
How does curcumin do this?

What now?
Try to increase the effect of curcumin (e.g. with metformin, a medicine used to treat diabetes)

Clinical trials underway with patients who have bowel cancer

Cancer is a mixture of cells. I use a cell sorter which helps me to identify cancer stem cells. I then carry out experiments using these cells.

Cells grow through a series of cogs. In cancer stem cells, Nanog is the most important cog needed for cells to divide and maintain cancer. Curcumin is able to interact with Nanog by reducing the cells ability to manufacture Nanog and increase its ability to break Nanog down.

I am testing my findings using human bowel cancer tissues.

Why focus on bowel cancer?
Bowel cancer is the second highest cause of cancer deaths in the UK. This is despite advances in screening, diagnosis and treatment.