

## Cancer Research @ Bath

# Targeting Cancer More Effectively

Cancer affects each and every one of us. In the UK more than 1 in 3 people will develop the disease

CR@B brings together researchers from across the University and the Royal United Hospital, Bath. The aim is simple: to benefit patients and their families by helping to find a cure for various types of cancer.

40 academic groups from nearly every department in the University are focussed on this goal, taking an interdisciplinary approach to the disease. The partnership of scientists and clinicians fosters a translational approach, allowing research to be taken from bench to bedside and back again.

## How we are helping to beat cancer

### Drug Discovery

The discovery of a new family of anti-cancer drugs called steroid sulfatase inhibitors, which are a potential "First-in-Class" therapy to treat breast cancer tumours.

From Daffodils to Drugs: research into a family of compounds isolated from the daffodil that show very interesting anti-cancer properties. Since their isolation and synthesis is difficult, there is a need to synthesise simplified analogues that are easier to obtain yet still retain potent anti-cancer activity.

The discovery of a protein, RASSF7, which is the latest of a battery of proteins essential for mitosis (a cell dividing in two). Without the RASSF7 protein, cell division is halted, stopping the advance of cancer.

### Social Impact

Research exploring the psychosocial issues associated with completing cancer treatment is underway. It is estimated that

30-50% of cancer survivors are at high risk of experiencing problems adjusting to survivorship. The aim is to identify supportive factors for the survivor and their family in adapting to life after the initial treatment phase.

### Targeted Therapy

The study of a group of proteins called ESCRTs which give insight into how cancer cells can break off and spread to other parts of the body. ESCRTs have been implicated in the budding of HIV in fruit flies – the key is whether this is also true in humans.

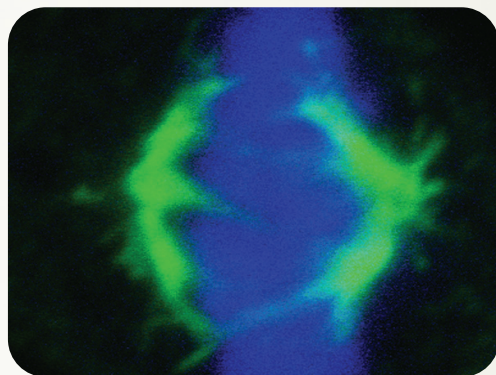
Microwave technology to destroy liver tumours pioneered at Bath has been used successfully on more than 100 patients in the UK and is now being used worldwide. Most patients with liver cancer are deemed inoperable but with this targeted therapy, thousands of patients could be offered curative treatment.



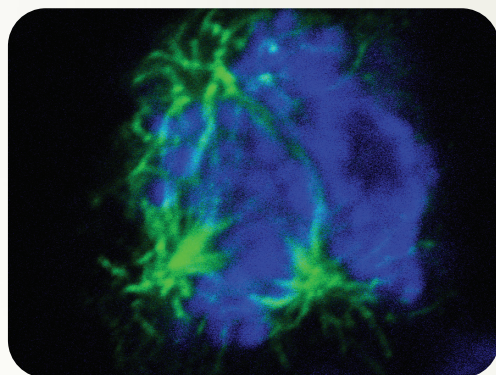
## Cancer Research @ Bath

# How you can help in the fight against cancer

With your help we can accelerate the pace of cancer research, one gift at a time



An untreated cancer cell which is ready to divide and spread



A cancer cell without RASSF7, which is now unable to divide

### Encouraging Excellence

Undergraduate Prizes for units with a Cancer theme  
– From £250

### Access to the Global Knowledge Pool

Travel Bursaries: for researchers to interact with established members of the cancer research community  
– From £500 to £2,000

### Investment in Ideas

PhD studentships: wholly funded 3 year PhD students  
– £10,000 p.a. (matched by the University)

### Breaking the Code

State of the art equipment, furnishing the brightest minds with the sharpest tools  
– £50,000 to £1,000,000

### The Next Generation of Researchers

Undergraduate summer studentships: A 10 week placement, an introduction to working at a bench  
– £2,000 per studentship

Undergraduate placements: A year's placement in a cancer laboratory, offering high calibre students the opportunity to make the leap into academic research  
– £20,000 per placement

Postgraduate placements: A four month placement in a hospital setting  
– £1,000 per placement

### Making the Difference

Research projects in skin, breast, prostate, colon and pancreatic cancer – detection, cure and treatment  
– £100,000 to £1,000,000



Every two minutes someone is diagnosed with this disease

Please support us in our work as we strive to make a difference – [www.bath.ac.uk/cancerresearch](http://www.bath.ac.uk/cancerresearch)