RIGHT NOW, RESEARCHERS, FUNDRAISERS, DOCTORS, NURSES, PATIENTS, VOLUNTEERS, CAMPAIGNERS, SUPPORTERS ARE BEATING CANCER
THANKS TO YOU WE ARE BEATING CANCER

Discover more of our stories at cru.uk.org/blog
Cancer Research UK’s vision is to bring forward the day when all cancers are cured. Our ambition is to see 3 in 4 people surviving cancer for 10 years or more by 2034.

We’re working to prevent cancer, diagnose it earlier, develop new treatments and optimise existing treatments to make them more effective.
Optimise

Making cancer treatment more effective
Find out more: page 40

Treat

Developing new cancer treatments
Find out more: page 32

Diagnose

Diagnosing cancer earlier
Find out more: page 24

Prevent

Preventing cancer
Find out more: page 16

Find the Annual Review, Annual Report and Accounts and Highlights online at cru.org/our-year
SIR HARPAL KUMAR AND PROFESSOR SIR LESZEK BORYSIEWICZ
THANKS TO YOU WE’RE BEATING CANCER

One in two people born in the UK since 1960 will be diagnosed with cancer in their lifetime. So it is vital that we work together to beat the disease. Everyone, from researchers, to patients and supporters, can help us achieve our goal of seeing 3 in 4 people surviving cancer for 10 years or more by 2034.

RESEARCH TO BENEFIT PATIENTS
Among the exciting research projects we supported this year were the first Grand Challenge awards. We believe the four winning projects will revolutionise our understanding of cancer (see page 10).

The TRACERx study is looking at the evolution of cancer by following lung cancer patients throughout their treatment. As part of the study, researchers developed a blood test and have published findings showing that it could detect relapse in patients who have had surgery up to a year before standard testing.

INVESTING IN THE FUTURE
We are also investing in the future of research, ensuring systems and resources are in place for researchers to continue their important work in years to come.

This year saw the opening of the Francis Crick Institute, which we co-funded (see page 12). We also announced our largest ever investment in our network of Centres – hubs which bring together world-class expertise in research and medicine, to help get life-saving treatments to patients faster.

We have also had challenges. A fire at our Manchester Institute, in which thankfully no one was hurt, significantly damaged research facilities. It was heartening to see our staff and supporters rally round, and the generous donations of the public will help to get the Institute back on its feet.

HEALTHY LIFESTYLES
Tackling rising obesity rates is an urgent priority, as we estimate obesity will cause 670,000 new cancer cases in the next 20 years. We are addressing this issue through research, campaigning and awareness raising (see page 18).

Our tobacco campaigning saw major successes this year, including the roll-out of plain packaging and smoking rates continuing to fall. But there is more to do. Our ‘Don’t Quit on Us’ campaign aims to protect vital Stop Smoking Services, which are at risk from government budget cuts.

WORKING TOGETHER TO BEAT CANCER
None of our work would be possible without our supporters. We strive to make sure that your donations are spent in the best way. And we involve people affected by cancer to help shape our work. Alongside many other projects this year, our patient representatives played a vital role in the development of the Grand Challenge awards.

It has been an exciting year, and we want to thank all our amazing supporters, volunteers, scientists, doctors, nurses and partners. Every one of you is helping to beat cancer sooner.

Sir Harpal Kumar
Chief Executive

Professor Sir Leszek Borysiewicz
Chairman
24 May 2017
I’m a Cancer Research UK clinician scientist at The Institute of Cancer Research, London. I work in the early stages of drug development, where new drugs are given to patients for the first time to see how they work in the body.

I’m motivated by patients
The patients volunteering for our trials often have advanced cancers and have already had several different treatments. It is a privilege to work with patients who, at a difficult time in their lives, enrol in trials to help science, medicine and the next generation of cancer patients. My motivation is to help patients by evaluating innovative medicines developed by Cancer Research UK scientists in early clinical trials.

My lab focuses on making sure that a cancer drug acts in the way we intend and ‘does what it says on the tin’. This research helps us tailor doses of the drugs. Funding from Cancer Research UK also allows me to conduct experiments to find new combinations of cancer drugs that are needed to fight the disease.

Supporting the entire process
Cancer Research UK supports many different stages of cancer drug development, funding researchers, labs and equipment. They also train, fund and empower talented scientists, nurses, data managers, clinical trial coordinators and medical staff, who are all critical to cancer drug development.

Partnerships help us make a difference
It’s so important that different parts of the health system, including drug companies, the NHS and charities, work together to develop new treatments faster. That’s why it’s great that Cancer Research UK is working with partners like the Departments of Health to fund Experimental Cancer Medicine Centres. Initiatives like this will also help make sure research findings are developed into effective cancer treatments as soon as possible.

You make my work possible
Cancer Research UK’s support meant I could design and conduct a national early-phase clinical trial combining a new drug called vistusertib with a known cancer drug, paclitaxel. The findings of this study led to this combination being further evaluated in treating ovarian cancer.

It is only because of Cancer Research UK’s many generous supporters that researchers like me can do our work. Thank you to everyone who has donated time or money to this important cause. You’re making these advances possible.

Dr Udai Banerji
Cancer Research UK clinician scientist
24 May 2017
Cancer Research UK is the world’s largest cancer charity dedicated to saving lives through research. Our vision is to bring forward the day when all cancers are cured, from the most common types to those that affect just a few people.

One in two people born in the UK after 1960 will be diagnosed with cancer at some point in their lives. Right now, half of the people diagnosed with cancer will survive their disease for at least 10 years.

**Our ambition is to accelerate progress and see 3 in 4 people surviving cancer for 10 years or more by 2034.**

Every day, scientists, doctors and nurses are working to save more lives. They’re preventing more cancers, diagnosing the disease earlier, and developing new treatments. Our work to engage and inform patients, policy makers and the public is helping to ensure our research is making a real difference.

Thanks to you, we’ve helped double cancer survival in the UK in the last 40 years. But there’s still so much to be done. While survival for some cancers has improved dramatically, others, like brain tumours, and lung, pancreatic and oesophageal cancers, are still very hard to treat. We need to change that, so we’ve increased the amount we’re spending on these cancers as part of our research strategy.

Our research has shown that more than four in ten cancers in the UK are preventable, and we are working to ensure everything possible is being done to reduce the number of people who develop the disease.

None of our life-saving work would be possible without the strength of our fundraising and our outstanding people – our supporters, volunteers, patients and staff.

Thanks to you, we’re making progress every day. Together we will beat cancer sooner.

Find out more about our research history at cruks.org/our-history

Thanks to you, we’ve helped double cancer survival in the UK over the last 40 years. Today, 2 in 4 survive.
To improve cancer survival, we are working to help prevent the disease, diagnose it earlier, develop new treatments and optimise existing treatments to make them even more effective. These are just four of the researchers we fund across the UK to help us achieve this.

- **Prevent**
  - **Dr Alice Forster** is studying uptake of the HPV vaccine

- **Diagnose**
  - **Dr Sarah Bohndiek** is creating imaging techniques that might help detect cancer early

- **Treat**
  - **Professor Gerard Evan** is working to find new treatments for pancreatic cancer

- **Optimise**
  - **Dr Serena Nik-Zainal** is looking at genetic signatures that could predict if treatment will work

Find out more in Pioneering Research, a publication for our research community, at cruk.org/pioneering-research
People affected by cancer drive everything we do. By sharing their experiences, they provide vital insights that help us develop our work. Graydon Downs, 39, from Sunderland, has been living with glioblastoma, a type of brain tumour, for almost five years. He’s part of Cancer Research UK’s 770-strong patient involvement network and has taken part in focus groups, research strategy workshops, and has been a career mentor for Cancer Research UK staff.

“Involving people affected by cancer in developing research and strategy work is essential. If you don’t, it’s a bit like a business trying to build a new product without listening to its customers. The work Cancer Research UK does in this area, and the way they involve patients, is hugely important.

I know what heartache cancer causes. When my doctor gave me a terminal diagnosis, I fell apart. I struggled to get over the anger stage. And I felt guilt for bringing this demon into the world for the people I love.

I first started supporting Cancer Research UK because their research strategy committed to investing more money into brain tumour research. I know we won’t see the benefits of this research for several years, so it’s unlikely to help me. But I wanted to help make a difference for other people in the future. I thought I should get involved and try and shape cancer research and investment as much as I can.
I took part in Cancer Research UK’s research strategy workshop in January 2017. It was a chance for people affected by cancer to comment on the progress the Charity has made since their new research strategy launched in 2014, and see if they’re doing what they set out to do. There were 12 of us at the workshop, all affected by cancer. The facilitators also asked our opinion on where we would like to see more funds invested in the future.

Working with Cancer Research UK has made me realise that we need to invest in all types of cancer. Finding cures for brain tumours is personally and emotionally important to me. But every type of cancer is painful for somebody.

It felt good to be able to give my view on the Charity’s progress in reaching the goals set out in their strategy. My opinion is there’s been lots of excellent work so far, though I would like to see a few more stats on just how far we’ve come since it launched.

Hearing about the Francis Crick Institute was exciting too, because there are so many scientists from different fields all under the same roof. From my experience of working in industry, you get the greatest returns when the boundaries between different subject areas blur into each other. That’s where innovation really happens.

To anyone thinking about supporting Cancer Research UK, I’d say ‘Why wouldn’t you get involved?’ Everyone knows someone affected by cancer. Ultimately, the more effort we can put into helping beat it, the better. There can be no other problem that’s more pervasive in life. You just need to look at the numbers.”
We have so many different perspectives and insights into a problem here. That’s what cancer research is going to benefit from.
Cancer poses some extraordinarily complex questions. With our Grand Challenge awards, our most ambitious research grants ever, we want to help answer them – and in doing so, revolutionise the way we prevent, diagnose and treat cancer. Dr Rick Klausner, chair of the Grand Challenge Advisory Panel, introduces the first four winning projects.

“I’ve been reading and reviewing applications for research funding for almost 40 years. The ones we received for Grand Challenge were some of the most exciting I’ve ever seen.

Originally, the plan was to fund one team. But the quality of the shortlisted teams led to Cancer Research UK securing a partnership with the Dutch Cancer Society and an anonymous overseas donor to enable them to fund four. Together, the projects will receive more than £70 million over the next five years.

The panel chose these four projects because we believe they will dramatically improve our understanding of cancer.”

**DEVELOPING A ‘GOOGLE EARTH’ FOR TUMOURS TO IMPROVE CANCER DIAGNOSIS AND TREATMENT**

**Who?** Dr Josephine Bunch, and her team of chemists, physicists and biologists in the UK and US.

**What?** Using a variety of new mass spectrometry imaging techniques and instruments, including ones they have developed, Josephine and her team aim to create the equivalent of a ‘Google Earth’ for tumours.

They will map individual breast, bowel and pancreatic tumours in unprecedented detail – from the whole tumour and its overall structure, right down to the individual fats and proteins in tumour cells. Doing this is like using Google Earth to not only identify a house and where it is in a country, but also who’s inside, and what they’re watching on TV.

**Why?** This approach could unlock secrets in tumours that could lead to new ways to diagnose and treat cancer and, ultimately, help more people survive the disease for longer.
FINDING WAYS TO SPARE WOMEN UNNECESSARY TREATMENT

Who? Dr Jelle Wesseling and his team of scientists from the UK, Netherlands and the US.

What? Each year around 6,300 women in the UK are diagnosed with ductal carcinoma in situ (DCIS), a condition that sometimes develops into breast cancer. Right now, doctors can’t tell which women with DCIS will develop breast cancer, meaning that some women have treatment they don’t need.

Jelle and his team will study tissue samples taken from women with DCIS during surgery and gather medical information about these women, such as whether they later developed breast cancer and, if so, whether it spread. They will use this information to search for clues in the women’s DNA that indicate how likely they are to develop breast cancer.

Why? Ultimately, this research could help spare thousands of women unnecessary treatment, while making sure those who need it get it.

HOW PEOPLE WITH CANCER SHAPED GRAND CHALLENGE

From the moment Grand Challenge began, people affected by cancer helped shape the awards, making sure the research we funded would have the biggest impact possible on cancer patients. Patients and carers joined researchers at our ‘Big Think’ events, to help generate the Grand Challenge questions for researchers to answer. Our patient advisory panel was picked from those who attended the ‘Big Think’ events and involved people with a range of experiences of cancer who share our determination to tackle these challenges.

“As a cancer patient, it’s difficult to put into words how it feels to have played a part in the Grand Challenge awards. Considering what they mean and their value to people with cancer, I feel proud and privileged to have been part of such a prestigious project.”

Terry, patient panel member
Officially opened in November 2016, the Francis Crick Institute (the Crick) is the size of 17.5 football fields. Inside, scientists and medical professionals from different disciplines are collaborating to transform the way we do research. Alongside partners, we co-funded the building of the Crick to house groundbreaking research into cancer and other diseases.

“Very few human beings have seen what I’ve just seen,” says Professor Adrian Hayday, Senior Group Leader at the Crick. He’s talking about the very first clear images of ‘gamma delta T cells’ in human skin that his colleague Dr Rick Woolf, a doctor and researcher at Guy’s Hospital, brought in to his office moments earlier. These immune cells could be used as a type of ‘early warning’ system for cancers developing in the skin.

“That’s the thrill of research,” says Adrian. “Images like that are what get me out of bed in the morning. And they’re only possible because of people working together – imaging experts, doctors, and our histology labs, where cells and tissues are studied.”

OUTSTANDING EXPERTISE AND HANDS-ON EXPERIENCE
According to Adrian, it’s not just the state-of-the-art equipment at the Crick that matters, but how it’s used, and who’s using it. “We’ve got these incredible support facilities at the Crick, both technical and intellectual,” he says. “If you want to do something here, there will be the facility to do so and it will be run by someone with outstanding expertise and hands-on experience.”

There are 1,500 staff and scientists at the Crick – from biologists to physicists, computer scientists to mathematicians, chemists to data analysts. It’s this mix of viewpoints that makes it such a dynamic and unique place to work. “We have so many different perspectives and insights into a problem here,” says Adrian. “That’s what cancer research is going to benefit from.”

The Crick doesn’t just encourage collaborations between scientists. Its connections with local hospitals are helping to speed up research and make sure patients benefit from it as quickly as possible. “It would be an absolute crime if there wasn’t a connection between the amazing research, people and capabilities here and those at some of the UK’s best hospitals,” says Adrian.
“I’m trying to create a situation where that happens as much as possible. It’s nirvana for scientific research.”

**SCORING MORE GOALS AGAINST CANCER**

Adrian’s work at the Crick focuses on immunology, the study of the immune system. There to protect us, our immune system spots and destroys anything in our bodies that shouldn’t be there, including faulty cells like cancer cells. But cancer can be cunning and hide from the immune system. Immunotherapy is a type of treatment that works to reawaken and boost the immune system to help it recognise cancer cells and destroy them.

“It’s what I call ‘the DIY approach’ to treatment,” says Adrian. “Instead of attacking the tumour from the outside, you’re creating a way for your body and the cells in it – such as the gamma delta T cells I saw images of earlier – to be more efficient at finding and destroying cancer cells.”

To illustrate the work he’s doing right now, Adrian turns to football. “Imagine this as a football match – cancer versus the immune system. In a 90-minute game, the ball rarely goes into a goal,” he says. “What would happen if you were to tip the immune system’s end of the pitch up by 10 feet? The ball would keep rolling against cancer and into its goal. That’s what we’re doing with immunotherapy here at the Crick. We’re tilting the pitch so the immune system can score more goals against cancer cells.”

**EXCITING SCIENCE IS ALREADY HAPPENING**

Having the freedom and facilities to explore new ideas is a key part of what makes the Crick special. “Fundamental research without boundaries is essential to understand more about cancer,” says Adrian. “We’re doing it here at the Crick, and that’s in large part thanks to Cancer Research UK and its supporters. It can be tough to support innovative science, making sure the right scientists get the right funding. Cancer Research UK gives a lot of thought to that – it’s a tremendous organisation.”

“We’re not even into the adolescence of the Crick yet,” says Adrian. “And yet, exciting science is already happening. I have no doubt that this place, and the work being done here, is going to be incredible.”
Exploring the Crick

- The Crick is 170m long and just under 50m high.
- It has a total floor space of 93,000m² or nearly one million square feet – that’s the size of 17.5 football fields.
- There are four floors below ground and eight above ground, with 1,553 rooms – twice as many as Buckingham Palace.
- 25,000 sensors constantly monitor heat, light, pressure and humidity (that’s four times as many as The Shard), making sure working conditions are just right and no energy is wasted.
- The building has 1,700m² of solar panels generating energy.
- On the roof, there’s space for wild flowers and plants to grow, along with bat boxes to encourage wildlife.
- There is no car parking other than disabled spaces – but there are 180 bike racks for staff, plus more for visitors.
- The design of the building encourages collaboration: there’s a hub on each floor with meeting spaces. Walkways and informal meeting areas criss-cross the main atrium and connect the different ‘neighbourhoods’. Plus there’s a large canteen and a café.
GET INSPIRED: VISITING THE CRICK
The Crick has a programme of events, talks and exhibitions open to the public. They are designed to involve, inspire and educate people of all ages and experiences of science. There’s a large exhibition space which anyone can visit, and a ‘discovery lab’ for school groups, helping encourage more young people to get into science.
Find out more at crick.ac.uk/whats-on

DISCOVERIES ARE HAPPENING RIGHT NOW
Researchers at the Crick are already making discoveries. An international team of scientists, led by Dr Peter Van Loo, showed how understanding more about how breast cancer cells spread could lead to more effective ways to tackle the disease.
Find out more at crick.ac.uk/news

““The Crick will revolutionise medical research. Through collaboration and sharing insights, it will make a unique global contribution to our understanding of cancer, as well as many other diseases. “”

Sir Harpal Kumar
Chief Executive of Cancer Research UK
I want to encourage other people to live healthily so that fewer go through what I went through.
"Like most people, you probably know that smoking causes cancer. It’s the biggest single preventable cause of the disease. But could you name the second biggest?

If you couldn’t, you’re not alone. In 2016, our research showed that around three in four people didn’t know there was a link between cancer and being overweight or obese. Yet, obesity is linked to an estimated 18,100 cases of cancer each year in the UK.

It’s vital we tackle this problem right now. If trends continue, it is estimated that almost three-quarters (72%) of people in the UK will be overweight or obese by 2035 – which could cause an additional 670,000 cases of cancer over the next 20 years.

That’s why we’re tackling obesity from all angles. We’re raising awareness around it, campaigning for the Government to take action, and carrying out vital research into how obesity causes cancer.”
CAMPAIGNING FOR CHANGE, SEEING RESULTS
Raising awareness is the first step. But we need to do more. The Government needs to help people make healthy eating choices. With around 1.7 million children in England starting secondary school overweight or obese in the last decade, this help needs to start when they’re young.

In early 2016, we campaigned for a ‘Soft Drinks Industry Levy’, known as the ‘Sugar Tax’, and were pleased to see it included in the UK Government’s childhood obesity plan. We also support the plan’s voluntary programme for food manufacturers to remove 20% of sugar from nine food groups, such as yoghurts and breakfast cereals. But we think the plan needs to go further, so we are campaigning for the Government to tackle more of the proven causes of childhood obesity, like junk food advertising.

There’s clear evidence that children who are exposed to junk food adverts are more likely to eat unhealthy food, which is why we have been taking action through our ‘Junk Free TV’ campaign, calling for no junk food advertising before the 9pm watershed.

Almost 100 of our Cancer Campaigns Ambassadors met with more than 160 MPs, as part of a day of action in Parliament. They discussed the importance of cancer research and measures that can be taken to prevent cancer, including tackling childhood obesity. We will continue to work with MPs to make sure they know about the link between obesity and cancer.

We’re also helping the Scottish Government to develop its new diet and obesity strategy, which should be published later in 2017. In Scotland, we’re calling for action to limit price promotions on junk food, something the Scottish Government has the power to act on. We’ll continue to campaign and raise awareness on this issue in Scotland.

INVESTING IN RESEARCH, INCREASING KNOWLEDGE
We know that extra fat in the body raises the risk of several diseases, including cancer. But we don’t know exactly how obesity causes cancer. One of our Grand Challenge projects (see page 10) is hoping to change that. These researchers will be aiming to see if being overweight or obese leaves ‘fingerprints’ in DNA that might be linked to cancer.

TACKLING TOBACCO
Smoking causes around six million deaths each year worldwide. We continue to campaign to make sure there’s support to help people give it up. Stop Smoking Services are the most effective way to quit, but government cuts to public health budgets are forcing local councils to close them. With your support, we’ve been fighting to save as many services as possible.

E-cigarettes are a new opportunity to help smokers quit, so we are investing in research to better understand these products. In February 2017, for example, our scientists published results showing e-cigarettes are less toxic and safer to use long-term when compared to conventional cigarettes.
KATH BEBBINGTON
MAKING HEALTHIER CHOICES

Kath Bebbington, 57, from Bolton, is a senior bra fitter at a department store. Diagnosed with womb cancer in 2014, Kath now helps us to promote healthier lifestyles. She lives with her husband Tony and has three daughters, two sons, six grandchildren and two Jack Russells.

“Today, at 57, I’m back to the same weight I was at 19. I’ve lost four and a half stone in the past three years and I’ve got my BMI right down. It’s amazing.

Before, I didn’t eat enough of the right stuff. I didn’t exercise and snacked on rubbish. Not anymore. Now I love fruit and veg, and I’m power walking most days or taking the dogs for a walk. There’s nothing nicer than putting your trainers on and getting outside. I know I sound a bit soft, but I love getting out in nature, experiencing the sounds and the smells. Since having cancer, I’ve changed, and I appreciate times like this even more.

I STILL FEEL VERY EMOTIONAL
It was around Christmas 2013 that I first noticed some bleeding that wasn’t normal, but I put it down to the menopause. When it got worse, my daughter said I should go to the doctor. After examining me, the doctor said she wanted to refer me for some more tests. She reassured me I shouldn’t worry. A few hours later, she phoned to say she’d decided I needed to be seen sooner. I was a nervous wreck.

I had various tests at the hospital, including a biopsy, which showed that I had womb cancer.

When you hear the word cancer your mind runs riot. I remember thinking: ‘Am I going to live to see my grandchildren grow up?’

I had surgery to remove my womb, ovaries and cervix, and they were confident that they removed all the cancer. I’ll need to be reviewed for five years. But I feel very lucky that they diagnosed my cancer at an early stage and I didn’t need to have chemotherapy or radiotherapy. I still feel very emotional about it some days though.

We don’t know what caused my cancer, but I have to admit I was carrying a few extra pounds, which may not have helped. And after finishing treatment I wanted to make some changes.

Six months after my operation, I was out doing Race for Life for Cancer Research UK with my daughters, Lisa, Leanne and Siobhan. I’m doing it again this year. I’ve done the Manchester run too.

JUNK FOOD IS DEFINITELY A PROBLEM
I had no idea about the link between obesity and cancer, in particular womb cancer, before I was diagnosed. All I associated with being overweight was heart and joint problems, and diabetes. I think the campaigning work Cancer Research UK is doing to reduce junk food advertising to children is very important. The adverts for pizza and burgers are so fun and attractive for teenagers and young children. It’s definitely a problem. I’m lucky my grandchildren keep active with football and dance and they mostly eat healthy foods.
I love getting out in nature, experiencing the sounds and the smells.

My cancer has been a wake-up call for my children as well. They’ve all become healthier. Even my husband, who loves his pie and chips, now eats what I eat.

I can’t say I’ll never get cancer again, or that my weight caused my cancer in the first place – no one can. But making changes to my lifestyle has certainly made me feel better. And, psychologically, it’s good knowing that you’re doing the right things.

Having cancer never leaves you. When I have ladies coming in for a bra fitting at work who’ve had breast cancer, I feel an emotional connection there, even if we don’t speak about it.

One of the things I feel passionate about is Cancer Research UK. My ambition is to do as much as I can for them, like help raise awareness of womb cancer and other cancers linked to being overweight or obese. I want to encourage other people to live healthily so that fewer go through what I went through. I hope that my story helps others make a change in their life.”

“Thanks to research, we know that more than four in ten cancers can be prevented. To find out more, visit cruk.org/cancer-causes”
The health benefits of exercise are well recognised. Exercise plans are already used as part of care for people with diabetes and lung disease. What we want to find out from the CHALLENGE trial is whether we could also use exercise as part of cancer treatment, to prevent it coming back. Previous studies have suggested this could be the case, but if we’re going to recommend it we need more evidence to know how much exercise to advise people to do.

So, in this study, we’re testing whether a specific amount, or ‘dose’, of exercise can reduce the risk of a person’s bowel cancer coming back after they’ve had surgery and chemotherapy. The idea is they move from being someone who doesn’t exercise to somebody who exercises regularly. These patients need to do a ‘prescribed’ amount of exercise weekly that is tailored to their fitness levels.

We want people to enjoy the exercise, so they get to choose what they do. They can cycle, swim, run, walk, dance – anything, as long as they’re exercising separately from what they’d normally be doing during the day.

WIDER HEALTH BENEFITS
We will test people’s fitness levels over the three years of the trial, to see if increased fitness levels are associated with a reduced risk of cancer coming back. We will also see if increased fitness improves things such as sleep and anxiety levels that can affect quality of life.

In the UK alone, around 41,900 people are diagnosed with bowel cancer each year. What motivates me to run the CHALLENGE trial is that there hasn’t been enough progress in recent years in treatment for bowel cancer patients.

Exercise as part of treatment could not only stop someone’s cancer coming back but also add to their quality of life – physically and mentally. It could get people affected by cancer back doing the things they want to do.”

“Could exercise prevent bowel cancer coming back?

When you think of cancer research, you might imagine scientists in white coats peering into microscopes. But for Dr Vicky Coyle, a consultant oncologist at Queen’s University Belfast, research means gyms and trainers. She’s leading the UK arm of an international clinical trial called CHALLENGE to see whether physical exercise could help reduce the risk of bowel cancer coming back.

If we’re going to recommend exercise, we need much more evidence to know how much to advise people to do.”
HOW THE CHALLENGE TRIAL WORKS

Exercise is already used as part of treatment for some diseases, like lung disease. But could it be used as part of cancer treatment to prevent cancer coming back? The CHALLENGE trial wants to find out.

1. People with bowel cancer who have had surgery and chemotherapy will be put into one of two groups at random.

2. One group will be **supervised and supported** as they work to do more exercise and increase their fitness levels.

3. The other group will not be supervised. They will be given **standard Department of Health information leaflets** that recommend weekly exercise.

4. For both groups, patients will be encouraged to do exercise that works for them – things like dancing, walking, swimming, cycling or running.

5. Over three years, doctors will test people’s fitness levels. At the end of three years, they will see if people in the supervised group:
   - are fitter
   - slept better
   - had lower levels of anxiety
   - are at a lower risk of their cancer coming back

6. They will then make a decision on whether exercise – and what amount of it – should be included as part of treatment for patients with bowel cancer.
DIAGNOSING CANCER EARLIER
SUE VIPOND

“I feel passionately that we need to get the message out there about early diagnosis.”

Page 30
Diagnosing cancer early is crucial to giving people the best chance of surviving their disease, and it must remain a priority in the health service. We’re working with a range of partners to improve early diagnosis, including pathologists – the specialists who examine tissue samples to diagnose cancer. In November 2016, we published a report highlighting the rising demand for diagnostic cancer tests. This year the Government announced increased funding for early diagnosis in England.

“Pressure on pathology services means that crucial tests, including those for cancer, sometimes take longer than they should,” says Dr Suzy Lishman, president of the Royal College of Pathologists. “Having to wait longer than usual for pathology test results can be very stressful for patients. Delays not only increase anxiety, but can mean people don’t get the treatment they need as quickly as possible.”

Pathology services play a major role in diagnosing and treating cancer, as do imaging techniques like MRI scans or endoscopies, which involve looking inside the body with a camera. But as more people than ever before are being referred for all types of tests, NHS diagnostic services are under strain from the increasing demand.

At Cancer Research UK, we have been highlighting the need for more diagnostic resources to government and the NHS, encouraging them to take action so that services across the UK can meet the rising demand for tests.
**IMPROVING BOWEL SCREENING**

As part of our policy work to improve early diagnosis, we've been pushing to improve bowel cancer screening. A new, easier-to-use test called FIT (Faecal Immunochemical Test) will be used in the future for national bowel cancer screening programmes in England, Scotland and Wales, thanks in part to our policy work. We're waiting for the Government to decide in Northern Ireland.

We called for this change as we believe it could transform the effectiveness of bowel cancer screening, helping to diagnose more cancers early and save more lives.

**TACKLING TESTING TIMES**

We needed evidence to push the Government to start tackling the problem right now, before it gets worse. So Cancer Research UK commissioned a report called *Testing Times to Come?: An Evaluation of Pathology Capacity across the UK.* We wanted to understand the pressures facing pathology services and identify solutions.

The report recommends practical ways to make pathology services as efficient as possible, and make sure more people are trained and employed in pathology. We also identified other ways to ‘future-proof’ pathology to make sure it’s ready for changes in technology, research and diagnosis.

This is the third report in a series looking at all kinds of cancer tests – which we know are under pressure because demand is growing faster than the services provided, resulting in delays.

**PREVENTING A CRISIS**

As well as being president of the College, Suzy is head of the cellular pathology department at Peterborough City Hospital. She’s seen first-hand the strain her colleagues around the UK are under. “Many pathology services are at full stretch,” she says.

“Pathologists are finding their workloads going up and up. At the same time, they’re under increasing pressure to provide accurate results as quickly as possible so patients can start their treatment.”

There’s an urgent need for more investment, in both workforce and technology. “Pathology services are very reliant on the highly skilled workforce of doctors and scientists,” says Suzy. “As these specialists take over a decade to train, investment is needed now to meet the needs of future patients.”

Suzy believes that the collaboration between Cancer Research UK and the College has been beneficial to both organisations. “The College has welcomed the opportunity to explore new ways of working to deliver more cost-effective, high-quality services to patients. Recognition from such a well-respected organisation as Cancer Research UK that pathology is essential to cancer diagnosis has been very welcome, and highlights the challenges we face,” she says. “Working together on the report has helped the College prioritise what it can do to improve the care of people with cancer, both now and in the future.”

**MORE INVESTMENT IN EARLY DIAGNOSIS**

The report, combined with our ongoing advocacy and campaigning work into early diagnosis, has meant that more funding is being invested through local areas, particularly in imaging and endoscopy. We’ll continue to speak up to make sure the Government delivers on its promises, and health services have the support and workforce they need to save more lives by diagnosing cancer quickly and accurately.

The Government promises more funding for diagnosis resources

RIGHT NOW

"Many pathology services are at full stretch."
Q: WHAT IS THE CANTEST COLLABORATIVE AIMING TO DO?
Our project’s mantra is ‘the right test, for the right patient, in the right setting, at the right time’. We’re investigating whether some tests that diagnose cancer and other illnesses could be carried out in GP surgeries as accurately, effectively and safely as they can be in hospitals.

Q: WHAT COULD IT MEAN FOR PATIENTS?
It could mean that GPs can diagnose cancer in their surgery. Or quickly reassure patients if there’s nothing seriously wrong. And if they are unable to confirm a diagnosis at the surgery, it could mean doctors can refer patients to the most appropriate medical professional in the hospital faster. This could help reduce the number of times a person is referred between their GP and the hospital, minimising delays. The earlier we diagnose cancer, the more treatment options there are for patients and the more successful they’re likely to be. So, ultimately, it’s about helping more people survive.

The other part of the CanTest project is establishing an early diagnosis international school to nurture a new generation of researchers to continue this work. In doing so, we’re making sure the exciting discoveries in cancer diagnosis research made today can be translated into benefits for patients in the future.

Q: WHO IS INVOLVED IN THE CANTEST COLLABORATIVE?
We’re lucky to have a group of experts with specialist knowledge on our team. Behavioural scientists, health economists and statisticians, for example, will all help us understand more about how safe it is to do these tests in a GP surgery, how patients feel about these tests being done at their GP surgery, and if it’s cost-effective to do them.

We also wanted to learn from other healthcare systems around the world, so we developed an international collaboration as part of CanTest. We’re privileged to be working with GPs from Denmark which has a similar system to us, and Australia and the US, which are very different. Some of the tests already being used widely in these countries could be of great value to GPs in the UK when diagnosing cancer, so we can gain a lot from their input.

Dr Fiona Walter and Professor Willie Hamilton
CAN WE DIAGNOSE CANCER IN GP SURGERIES?

Detecting and diagnosing cancer early can help more people get effective treatment and reduce unnecessary anxiety. That’s why we’re funding the CanTest Collaborative, revolutionary research looking at how GPs could use more tests to help them rule out cancer or speed up a diagnosis. Dr Fiona Walter at the University of Cambridge, and Professor Willie Hamilton at the University of Exeter, are leading the project. Fiona explains how CanTest has the potential to help more people survive cancer in the future.
We’re involving patients every step of the way too – from being involved in the development stages of the project, right through to the implementation of the tests. Their perspective is vitally important.

**Q: HOW IS THE RESEARCH FUNDED?**
CanTest will receive £5 million over five years from Cancer Research UK’s inaugural Catalyst Award. It’s the Charity’s largest ever investment in researching primary care – frontline services like GP surgeries. We’re incredibly grateful as we wouldn’t have had an investment like this from anywhere else.

**Q: WHAT MOTIVATED YOU PERSONALLY TO DEVELOP THIS PROJECT?**
I’ve been a GP for 30 years. CanTest came about from my experience and the feeling that we can always improve the way we work with patients. This amazing investment will help us gather evidence to do exactly that – by developing tests that can help us reassure those who don’t need further investigation and act quickly for those that do.

It’s a hugely exciting project that’s generating quite a buzz. We hope to have some early results as soon as late 2018. I’m delighted to be working on something that feels really worthwhile and could make a huge difference to patients in the future.

**A SMARTPHONE APP THAT COULD HELP DIAGNOSE LUNG CANCER**
We’re working on innovative ways to help health professionals diagnose cancer early. For example, we’ve developed an app that allows doctors to assess a patient’s lung cancer risk using a smartphone.

When patients have a lung scan that shows small growths – called pulmonary nodules – doctors need to make a quick decision about what to do next. These nodules might be harmless, but they may be cancerous and need treatment. This app helps doctors calculate how likely the nodules are to become cancerous, and means they can avoid giving patients unnecessary tests and treatment, and diagnose lung cancer as early as possible.

“It’s a fantastic app,” says lung cancer nurse specialist Sandra Hummerston. “It makes complex calculations really accessible and easy to use in day-to-day practice. If only all guidelines were as user-friendly, bringing evidence-based medicine to patients would be much easier.”

The app for iPhone and iPad was developed in partnership with the British Thoracic Society. It’s been downloaded more than 2,500 times so far.

“I’ve been a GP for 30 years and feel we can always improve the way we work.”
Sue Vipond, 67, a retired nurse, lives in Scotland with her husband John. They have three children and four grandchildren. Sue is passionate about raising awareness of the signs and symptoms of cancer and improving early diagnosis, having recovered from ovarian cancer that was caught at an early stage in 2009.

“I feel lucky. I know that my experience could have been very different and I wanted to do anything I could to help other people. So I decided to share my story, ‘warts and all’ – details are important if we’re going to raise awareness of cancer signs and symptoms and encourage people to get checked out.

I was interviewed by the local paper and I got involved in campaigning with Cancer Research UK to help people spot cancer early.

The message we wanted to get across is that you need to tell your doctor if you notice a change in your body which isn’t normal for you.

MY CANCER WAS DIAGNOSED EARLY

In spring 2009, I’d gone to see my GP as I’d been having almost constant abdominal pain. She didn’t think it was anything serious at first. But after blood tests and a scan, they discovered a cyst in my ovaries which they thought looked suspicious. I had to have an emergency operation because the cyst ruptured.

When the consultant told me it was cancer, I was really upset, obviously, but then I thought ‘Right, I’ve just got to deal with this’. My cancer was diagnosed early. It’s far easier to remain positive when you know it’s been found at an early stage.

After surgery, I had six cycles of chemotherapy. There were days when I felt terrible, but it wasn’t as bad as I’d expected. I carried on as normal and still volunteered at my local Cancer Research UK charity shop, which I’ve been doing for almost 25 years now.
fear and go and do something about it. It’s better to be told there’s nothing wrong than it is to ignore something.

I think Cancer Research UK’s CanTest Collaborative project to find out whether cancer tests can be done in GP surgeries is a good idea. When someone goes to their GP because they suspect something is wrong, the less time they have to wait for a referral or test, the better. Not knowing is worse than knowing. Once you have the information, you can deal with it.

WE NEED TO GET THE MESSAGE OUT THERE
Since I’ve recovered from cancer, if something is getting me down I think: ‘Well you dealt with that, you can deal with this’.

I feel passionately that we need to get the message out there about the importance of early diagnosis. I always say to people: ‘Listen to your body’. If you’re at all worried, conquer that fear and go and do something about it. It’s better to be told there’s nothing wrong than it is to ignore something.

I think Cancer Research UK’s CanTest Collaborative project to find out whether cancer tests can be done in GP surgeries is a good idea. When someone goes to their GP because they suspect something is wrong, the less time they have to wait for a referral or test, the better. Not knowing is worse than knowing. Once you have the information, you can deal with it.

We all need to do as much as we can to make sure there’s research happening to improve tests and treatments for cancer and find new ones. With one in two people being diagnosed with cancer, we want to make sure everybody is diagnosed as soon as possible and given the best treatment that’s right for them.”

“I feel lucky. I know that my experience could have been very different.”
When I was told there was a clinical trial I was immediately sure I wanted to take part.
Right now, thanks to supporters like you, our scientists are making big strides towards speeding up progress against hard-to-treat cancers. But there’s still a long way to go.

Some types of cancer are still hard to diagnose in the early stages and are stubbornly hard to treat – like brain tumours and pancreatic, lung and oesophageal cancers. At the moment, less than 5% of people in England diagnosed with glioblastoma survive their disease for five years or more. It’s just one example of where we need to do more.

Accelerating progress against hard-to-treat cancers is a priority for Cancer Research UK. Increasing the amount we invest in this area is a vital part of our research strategy, which we launched in 2014. Since then, we’ve increased our funding, this year spending £85 million – 13% more than last year. We’ve also been supporting the research community to make sure there are more high-quality projects to fund looking at these cancers.

Here are four stories showcasing what our researchers have been doing to help make progress against these hard-to-treat cancers.

**DR DIRK SIEGER**

**COULD TINY ZEBRAFISH HOLD THE KEY TO BEATING BRAIN TUMOURS?**

Dr Dirk Sieger and his team at the University of Edinburgh have uncovered some vital evidence about how the immune system interacts with brain tumours. Their research could lead to a new way to develop treatments – and it involves tiny, transparent fish.

The issue:

Our immune system is designed to help us stay healthy. We have specialised immune cells in our body, including in our brain, whose job it is to tackle things like bacteria, viruses – and cancer cells. But in the case of glioblastoma, a type of brain tumour, rather than trying to destroy cancer cells as we’d expect, immune cells work with them to help tumours to grow.

The research:

To discover how and why this happens, Dirk’s team transplanted glioblastoma cells into zebrafish, which are small enough to swim under a microscope. This allowed the researchers to study the ‘conversation’ between cancer cells and immune cells in a living brain tumour.

Now, the team are looking to design drugs which ‘switch on’ the immune cells that fight foreign invaders so they can turn their full force on cancer cells in brain tumours.

Dirk says, “Understanding more about how immune cells in the brain interact with brain tumour cells could help us develop new ways to treat the disease. It’s early-stage research, but it’s certainly exciting, and we can’t wait to see where it takes us.”

Find out more online
cruk.org/our-brain-tumour-research
cruk.org/donate-brain-tumour
PROFESSOR CORINNE FAIVRE-FINN
TESTING TREATMENT OPTIONS FOR PEOPLE WITH LUNG CANCER
Our research into lung cancer treatment has changed clinical practice around the world. A large-scale trial we funded looked at the best way to give radiotherapy alongside chemotherapy to people with small cell lung cancer.

The issue:
Finding better ways to give treatments like radiotherapy is a crucial part of cancer research. The CONVERT trial was set up to test new treatment options for people with small cell lung cancer that hasn’t spread.

The research:
Professor Corinne Faivre-Finn led the trial, the largest ever in small cell lung cancer. Researchers compared giving patients a higher dose of radiotherapy once a day for six and a half weeks to the standard treatment of giving lower doses of radiotherapy twice a day for three weeks. They found that giving a higher dose of radiotherapy once a day did not improve survival, and treating the cancer took twice as long. This supports the evidence for giving radiotherapy twice a day, which reduces treatment time, to become standard treatment for patients with this type of cancer.

Corinne says, “We’re pleased to provide answers to these questions and our results have already begun to change practice around the world.”

Find out more online
cruk.org/our-lung-cancer-research
cruk.org/donate-lung-cancer

PROFESSOR REBECCA FITZGERALD
REJECTING A ONE-SIZE-FITS-ALL APPROACH TO OESOPHAGEAL CANCER
Our latest research into oesophageal cancer points to a completely new way of understanding and tackling the disease, which could save many more lives. It could also help patients avoid unnecessary treatment and improve their quality of life.

The issue:
How we group together or classify cancers can help us to develop personalised treatments that are tailored to a person’s individual cancer.

The research:
A study led by Professor Rebecca Fitzgerald from the University of Cambridge discovered that oesophageal cancer can be classified into three different subtypes. Next, her team will look at whether they can use a DNA test to analyse the genetic signature or signatures present in cells to find out which of these subtypes someone has. It means, for the first time ever, we may be able to identify and test treatments designed to target these oesophageal cancer subtypes. It could help us personalise treatment and move away from a one-size-fits-all approach.

Rebecca says, “The new findings give us a greater understanding of the DNA signatures that underpin distinct types of oesophageal cancer.”

Find out more online
cruk.org/our-oesophageal-cancer-research
cruk.org/donate-oesophageal-cancer

PROFESSOR ANDREW BIANKIN
A NEW ERA IN TAILORED TREATMENT FOR PANCREATIC CANCER
A new multi-million pound study, PRECISION-Panc, will reveal essential information about pancreatic cancer that we can use to reshape how we develop treatment.

The issue:
Three in every 100 people diagnosed with pancreatic cancer in the UK survive their disease for five years or more – a figure that’s hardly improved for decades. Pancreatic cancer is often diagnosed at a late stage when it is more aggressive, so recruiting patients to clinical trials is difficult. This means progress in testing these treatments is slow and that patients today miss out on experimental new treatments.

The research:
Led by Professor Andrew Biankin at the University of Glasgow with researchers from hospitals across the UK, PRECISION-Panc aims to recruit patients to clinical trials faster, so that treatments can be developed more quickly. The study will look at the underlying biology of patients’ individual cancers and offer them a ‘menu’ of clinical trials that might benefit them.

Andrew says, “Instead of focusing on the clinical trial and working out if a patient is suitable, we want to flip this round – analyse the patients’ cancers first, then match the best trial to them, putting the patient at the heart of the process.”

Find out more online
cruk.org/our-pancreatic-cancer-research
cruk.org/donate-pancreatic-cancer

We are delivering on our promise to fund more research into these cancers
PETER BREADEN
HELPING CHANGE
THE WAY WE TREAT
PANCREATIC CANCER

Retired lab manager Peter Breaden, 67, who lives in Southport, was diagnosed with pancreatic cancer in 2010. He took part in ESPAC-4, a Cancer Research UK-funded clinical trial that has led to a call for a new standard treatment for people with pancreatic cancer who have had surgery. Peter has been married to Alwena for 47 years. They have three children and seven grandchildren with two more on the way.

‘Alwena and I had always wanted to see New Zealand and Australia. We love to travel. As soon as I was well enough, we booked a three-and-a-half-month trip. My having cancer made us do things that we’d always wanted to do. It had a domino effect on my family too. After hearing about my experience, my cousin went and bought himself a sailing yacht. He’d always wanted one and it made him think: ‘You just don’t know what’s going to happen’.

We were celebrating our 40th wedding anniversary in Barcelona in 2010 when I suffered what I thought was bad indigestion. I dismissed this as being a result of eating late in the evening, but a couple of weeks later I turned yellow with jaundice. I went straight to the GP. She took one look at the results of my blood tests and admitted me to hospital. After an ultrasound and CT scan of my pancreas, they found a tumour.

Patients start joining the ESPAC-4 trial testing a combination of pancreatic cancer drugs.
I KNOW HOW IMPORTANT CLINICAL TRIALS ARE
It was the next morning before they told me they could operate – that’s when I first had hope that I’d survive. It was a major nine-hour operation, which I had in early May 2010. A while afterwards, I was told there was a clinical trial that was testing whether a combination of two chemotherapy drugs – gemcitabine and capecitabine – would be better than just gemcitabine on its own, the treatment patients are usually given. I was immediately sure I wanted to take part. My job as a lab manager meant I was indirectly involved in trials for a lot of my working life, gathering and processing data for research projects. I’ve always been aware of how important they are in developing new drugs and treatments.

I WANT TO EXPRESS MY GRATITUDE
When I heard how good the results of the trial had been, I was extremely pleased. Scientists had put a lot of work into finding the combination of drugs I took. It was very satisfying to take part in something that was so successful – I found out that the combination of drugs I was given almost doubled the number of people surviving five years after the operation, compared to using one of the drugs alone.

I really want to express my sincere gratitude to the researchers at the University of Liverpool, my surgeon, consultant nurse and all the team at the Royal Liverpool for looking after me. My wife nursed me when I got home – she was absolutely brilliant, and so were my family and friends. It’s great to be back doing the things I enjoy, like spending time with my family, caravanning, playing guitar, gardening and fixing up my classic cars.

WE NEED MORE RESEARCH
With pancreatic cancer you often don’t get any symptoms until the tumour is very large or has spread. So we need more research to work out ways of detecting it before it gets to that stage. There are still many types of cancers where new drugs and new treatments are needed. This trial proves that doing this, and improving treatments, can provide very good results. So please support Cancer Research UK in any way you can – it’s a vitally important charity that supports some very valuable research.

After you’ve survived cancer, you do get a slightly different outlook. I feel very fortunate to be alive and am determined to enjoy life with my family for as long as I can.”

“Scientists had put a lot of work into finding the combination of drugs I took.”

Results from ESPAC-4 are improving treatment for people with pancreatic cancer
PROFESSOR PAM KEARNS AND ALYSSA DAVIES
IMPROVING TREATMENT FOR CHILDREN WITH CANCER

Q: CANCER TREATMENTS LIKE THE ONES I HAD CAN HAVE HORRIBLE SIDE EFFECTS. WHAT ARE YOU DOING TO MAKE THEM KINDER?
My team and I work on a range of trials to tackle this problem. I’ll give you a couple of examples. There’s a type of steroid given to children who have leukaemia – it’s a vital part of treatment. But it has a range of unpleasant side effects, including mood swings and appetite changes – the kinds of things you experienced. Our trial is comparing two different doses of the steroids – and how often we give them – to see if one will have fewer side effects than the other, but still work really well.

Another example of a trial that’s now finished was for young people with Hodgkin lymphoma. Treatment for this type of blood cancer is intensive and can cause infertility when people are older. Our trial found the treatment could be safely changed to one that’s thought to have less impact on fertility. And the current standard treatment for young people diagnosed with Hodgkin lymphoma now includes this better treatment.

Alyssa: “I remember my treatment made me tired. It made me eat a lot too. Once I ate eight Yorkshire puddings in a day.”
Q: SOMETIMES A CHILD’S CANCER CAN COME BACK. WHAT ARE YOU DOING TO STOP THIS HAPPENING?
When we treat cancer we are trying to do two things: firstly, get rid of it and secondly, keep it away, because when cancer comes back, it’s harder to treat than the first time round.

That’s why we’re carrying out several trials that look specifically at children and young people whose cancers have come back. In particular, we’re focusing on new drugs, ones which work in a different way to standard chemotherapy. For example, one of our international trials, BEACON, is looking at neuroblastoma, a cancer that develops in nerve cells. We’re testing four drugs in six combinations. The aim is to work out which is the best treatment to give children and young people with neuroblastoma whose cancer has come back. But also to see if there’s something we can give them in the first place to help stop it from returning. We’ve just had the 100th young person join the trial and we expect the first results this year.

Q: WHEN I GROW UP, I WANT TO BE A NURSE. HOW WILL THINGS BE DIFFERENT IN CANCER TREATMENT THEN?
At the moment, the drugs we use to treat cancers affecting children and young people tend to be drugs which were originally developed to treat adult cancers and have been around a long time. I hope, in future, we will have a new set of drugs designed specifically to treat these cancers. We’re working hard to make sure we have those as soon as possible.

My dream for the future is to see every single child and young person who’s diagnosed with cancer get the best possible treatment, based on good research and clinical trials that have proved it’s the right one for their specific disease.

Alyssa: “I think it’s important for us to find more treatments – then you can help more children like me.”

“I think it’s important to find more treatments – then you can help more children like me.”

CANCER RESEARCH UK KIDS & TEENS
Cancer Research UK Kids & Teens is a campaign to raise money for research into cancers affecting children and young people aged 0–24 years. Last year, thanks to supporters like you, we spent £6 million on research to find new, better and kinder treatments for young people facing cancer.
Looking at why some patients don’t respond to certain cancer drugs will help us use existing treatments in better ways.
"I’ll never forget the first patient who gave their consent to be a part of the PEACE study. She was a 19-year-old woman with lung cancer that had spread. Despite being so ill, she contacted us because she wanted to be involved in research. It made me feel so humble that she was doing something so selfless at the most difficult time of her life.

Every PEACE study patient will have that in common. They are giving and selfless people who want to help make progress in cancer research, despite knowing they won’t benefit from this progress themselves. I feel privileged and lucky to be part of this project. It’s one way we can fulfil people’s wishes in what is otherwise a very sad situation.

GAINING UNPRECEDENTED INFORMATION

Most cancer research involves collecting samples when someone is diagnosed, receiving treatment or has just finished treatment. What’s different about PEACE is that we also collect samples after someone has died. And if patients have been involved in other studies or trials in the past, we can use those previous samples too and compare them. We’re looking at samples from where the cancer first started and areas it has spread to. We’re also studying cancer cells and DNA found in the blood.
We’re going to look at all types of solid tumour, and we’re aiming to collect samples from 500 people across the UK. It means we’ll have lots of different, invaluable information about cancer – in particular advanced cancer – that we’ve never had before.

DEVELOPING NEW TREATMENTS

The PEACE study will help us understand how and why some cancers progress and spread. If we can identify common patterns, we might be able to develop new treatments and ways to intervene to prevent this from happening. We’re also looking at why some patients don’t respond or stop responding to certain cancer drugs. This will hopefully help us develop new treatments and to use existing ones in better ways.

With cancers in the lungs and brain tumours, we often can’t take tumour samples when patients are alive because the tumours are difficult to get to. The PEACE study will allow us to take and analyse samples from these parts of the body, something which is particularly crucial to help us improve progress in these cancers.

Where we have a patient’s blood samples, we can use them to see if there’s something in the blood that can tell us more about what’s happened in the tumours. This is really exciting because it will potentially help develop ways to analyse cancer cells in the blood, which could help us diagnose the disease faster, or help improve a patient’s treatment by determining sooner if it’s working or not.

THERE’S NOTHING LIKE THIS IN THE WORLD

PEACE is running across the UK, including in hospitals and universities in Glasgow, Birmingham, Oxford, Cambridge, Manchester, Leicester and London. As well as patients, we have a massive group of people involved in making the study possible – more than 100 doctors, scientists, other academics, pathologists, medical lawyers, ethicists and patient advocacy groups.

We’re able to do this work thanks to a £4 million grant from Cancer Research UK’s Centres’ Network Accelerator Award.

A UNIQUE OPPORTUNITY

I feel so passionately about the PEACE study and what it could achieve.

To collaborate on a project as big as this is a unique opportunity, for patients, doctors and scientists. Together we are trying to shape and improve the outcome for people with cancer in the future.”
Mark Sims was 15 when he was first diagnosed with melanoma, a type of skin cancer, in 2003. When it came back 12 years later, it spread and became incurable. A doctor from Bristol, Mark was a passionate ambassador for Cancer Research UK. In recognition of his contribution to the Charity, Mark received a Flame of Hope Award in 2016. Mark signed up to be part of the PEACE study, which will help scientists understand more about the late stages of cancer. Mark died in January 2017. His twin brother Dave, 29, a doctor living in London, shares Mark’s story and motivation for taking part in the PEACE study on behalf of their parents, Chris and Sue, brothers Matt and Paul, and Mark’s fiancée, Georgie.

*Mark always thought about others more than himself. Even in his last days, he was worried about not being able to reply to people who’d messaged him on Facebook.

Everyone liked Mark. He was very easy to get on with and had a lot of friends. He realised that his experience of getting cancer so young, and the fact he was a doctor, would resonate with people. When he shared his story on social media, with a link to his fundraising page, he raised £5,000 in the first five hours. That went up to £25,000 in just three days. The total was around £183,000 at the end of May 2017.

My mum says Mark always tended to embrace things. As a teenager, his hero was Danny Wallace because he loved the *Yes Man* book. His philosophy of life was: I’m going to say “Yes” more. And he certainly did that during his illness. He said that having cancer gave him opportunities he wouldn’t have had otherwise – like being in a television documentary, appearing on the news and meeting lots of interesting people.

**THE PEACE STUDY GAVE HIM ANOTHER OPPORTUNITY TO HELP PEOPLE**

When Mark’s doctors asked him about taking part in the PEACE study, we knew it would be something he’d want to do. The study gave him another opportunity to help people. The tissue he donated, before and after he died, will help
scientists learn about how cancer develops, particularly in the later stages. It’s a great contribution to research. He wanted to do as much as he possibly could to make sure that, in 20 years’ time, another Mark Sims doesn’t have to go through the same thing that he did.

Mark was first diagnosed with melanoma when he was 15, after the hairdresser noticed a dark patch on his scalp. Doctors were able to successfully treat it, but they knew the chance of it coming back was strong, so he had regular check-ups. He was fit and training for a half marathon in 2015 when he got some sudden severe pain. By the time they discovered the cancer had come back it had already spread to his liver, lungs, gallbladder and spleen. It later spread to his brain.

When Mark found out how serious his diagnosis was, he accepted it. He remained optimistic, but realistic. He wanted to do the best he could in the time he had.

WE ARE ALL REALLY PROUD OF MARK
As well as raising money for research, it’s really important to my family to raise awareness of melanoma. There are things you can do to lower your risk, like not going on sunbeds and covering up when you’re in the sun. One of my main motivations for sharing Mark’s story is to encourage people to take care of their skin.

Hopefully more people will get involved in the PEACE study as a result of his story too – the more, the better.

We are all really proud of everything Mark did. He inspired us. It’s never going to be easy without him, but the difference he’s made to other people does make it a little bit easier.”

INSPIRING PEOPLE ONLINE
Mark wrote a blog throughout his illness, which his mum Sue continues to update.

“When Mark wrote his story on his JustGiving page to raise money for Cancer Research UK, he found he got a lot out of the writing process,” says Sue. “So he started his blog, Wrestling Melanoma, and the entries are going to be published as a book.”

Mark’s dad Chris recognises the power and reach of his son’s blog. “He wrote about leading a healthier lifestyle and said he’d be happy if it got one person to give up smoking. Well, at least one person did — they wrote and told him. He touched people through his writing and the talks he gave in schools and universities about his experience. It made a real difference.”

Here are two comments from readers of Mark’s blog wrestlingmelanoma.com

January 22, 2017 at 11.58pm
“…Through your wonderful and difficult words you have inspired me to be a better doctor. You continue to inspire the medical students I share your blog with, to teach them about how cancer affects not just a patient but a person. My thoughts and love are with your friends and family, such an inspiring human being.”

January 23, 2017 at 11.28am
“…I used to work at Kingston Hospital and met Mark the few days he stayed there. I never forgot him … because of how personable and friendly he was and how he handled himself in such adversity. I now work in cancer research and I think that decision had something to do with reading this blog. Thank you Mark for sharing your story and I’m sure inspiring thousands of people.”
A vital part of our work developing better, kinder treatments involves seeing if combining drugs makes treatment more effective. Right now, Dr Simon Crabb is running a clinical trial at the University of Southampton, testing a combination of drugs that could lead to a much-needed fresh approach to treating bladder cancer.

“It’s been something of a ‘Cinderella cancer’ – overlooked and underfunded,” says Dr Simon Crabb, associate professor in medical oncology at the University of Southampton. “We’ve been giving the same type of chemotherapy to bladder cancer patients for over a decade.”

Simon hopes that the current trial he’s leading will begin to change that. The SPIRE trial is testing a drug called SGI-110 to see if, when combined with chemotherapy, it can improve outcomes for people with bladder cancer. It came about through collaborations between different Cancer Research UK-funded teams at our research sites in Southampton and Sheffield.

“This trial is a first,” says Simon. “Putting SGI-110 with chemotherapy is an experimental combination that’s never been tested before.”

Cancer is crafty. It changes how tumour cells work so that they can ‘hide’ from treatment or from the body’s own defences. Simon and his team think that SGI-110 may work
by preventing and undoing some of these changes so that cancer cells can no longer hide. They want to see if, by using this novel treatment combination, SGI-110 stops the cancer from growing, and makes it more likely that chemotherapy will work.

**HOW THE TRIAL WORKS**
The first part of the SPIRE trial will test this combination of drugs in patients with different types of advanced cancer, including bladder, lung, stomach and oesophageal cancers, to see if it’s safe.

“We are looking to prove it’s safe to combine SGI-110 with chemotherapy, learn about any side effects and to work out the best combined dose to give. We’ll also see if it’s having the effect we expect it to.”

The second part of the trial will focus on bladder cancer. It will assess whether combining SGI-110 with the current standard chemotherapy drugs – cisplatin and gemcitabine – before surgery is better than the two chemotherapy drugs alone.

“What we expect to see is that the SGI-110 will improve the effect of the chemotherapy drugs. Sometimes cancers become resistant to drugs. So we also hope it will reverse that resistance when it occurs,” says Simon. If the second part of the trial is successful, Simon believes there’s potential to apply the findings to other types of cancer too.

**PATIENTS MAKE AN AMAZING CONTRIBUTION**
As well as doing research, Simon works as an oncologist treating patients. “I see first-hand what a horrible disease bladder cancer is,” he says.

“[For some of our patients, this trial is an opportunity for them to have treatment when there are no longer any other treatment options left available to them.]” He recognises the amazing contribution to research people on the trial are making. “A clinical trial is a significant commitment. I think the patients who take part are fantastic,” he says.

“This trial wouldn’t be possible without Cancer Research UK. From funding my PhD more than a decade ago, to funding the Southampton Clinical Trials Unit where the trial takes place, Cancer Research UK has been there every step of the way.”

“A clinical trial is a significant commitment – the patients who take part are fantastic.”
TOMMY BRENNAN TAKING PART IN LIFE-CHANGING TRIALS

Tommy Brennan, 65, from Merseyside, was diagnosed with bladder cancer in 2012. He was given the all clear one year later, after taking part in Cancer Research UK’s TUXEDO trial. Tommy and his wife Barbara have two sons and a three-year-old grandson.

“My grandson Tommy is my little mate. I take him to the woods and show him the wildlife, we watch the birds flying around. If it wasn’t for research, I might not have got to see him at all.

I’d always been dead fit. I was a stonemason so I was always up and down ladders. I did martial arts and played football. Back in March 2012 I saw some blood in my pee, so I went to the doctor the next day. He sent me to the hospital for a scan and a cystoscopy – that’s when they use a camera to look at the bladder. It sounds painful, but it’s not that bad. I’ve actually had 16 of them now.

At first, I thought I might have an infection or something, nothing serious, so when they told me there was a tumour it was a bolt out of the blue.

I had chemotherapy, as well as surgery to remove the tumour. But it had gone into the muscle tissue, so it was worse than they first thought. I was left with two options. I could have a very complicated procedure to remove the whole bladder and reconstruct it from the bowel, which I didn’t want. Or I could join a clinical trial. I made the decision on the spot to go on the clinical trial.

Patients start joining the TUXEDO trial which looks at improving bladder cancer treatments
The trial consisted of chemotherapy every week and radiotherapy five days a week for seven weeks. I panicked when I looked at the list of possible side effects but I was lucky enough not to have any of them.

The staff at the hospital – doctors, nurses, radiologists, receptionists – were all fantastic. The clinical trial nurses were so knowledgeable and reassuring, they really put you at ease. And without my consultant, Dr Hussain, I don’t know where I’d be.

At the time, you’re thinking of yourself and getting through it, rather than anything else. But it’s great to know that being on a trial can help other people in the future too.

I think it’s really important for people to keep supporting Cancer Research UK. The money that’s donated means they can carry on testing new ideas and different combinations of drugs. Without these trials things would just stand still.

I still go for regular check-ups. But I’ve been clear for four years now. You never know how things are going to go in the future, but up until now everything has been great.”
ALFRED
SAMUELS

“...A huge thank you to everyone who supports Cancer Research UK from me and my family.”

Page 52
Alfred Samuels, 59, has advanced prostate cancer. He ran his own security business in the entertainment industry for 27 years, working with people like Beyoncé and Bob Dylan. Alfred lives in Harrow with his partner Grace and has five children.

“Standing outside Parliament in a t-shirt in January, I felt cold – and proud. I was having my photo taken with other Cancer Campaign Ambassadors after getting involved in campaigning about childhood obesity.

I like the fact that Cancer Research UK involves people like me, who have been affected by cancer, in their campaigns. We can influence government by telling our stories. We are the grassroots.

I got involved because I wanted to help raise awareness of what people can do to lower their risk of developing cancer. It has affected my family so much. I lost my mother to breast cancer, then her sister died six months later of cancer. Five years after that my uncle died of prostate cancer.

EVERYTHING FELL APART OVERNIGHT

I was out jogging in late summer 2011 when I first noticed a sharp pain radiating from the base of my spine down my leg. I tried to keep myself as fit as possible but it put me on the ground. I went to A&E and they thought it was a slipped disc. But the pain didn’t go away, so I went to my GP a few times. Eventually I was referred for an MRI scan. It showed I had advanced prostate cancer.

It was January 2012 when the doctor told me. The first words that came out of my mouth were ‘Why me?’ I was a strapping guy at the top of my game when everything fell apart overnight. Telling Grace and my children was the most difficult part. They were really hurting.

I WOULDN’T BE HERE WITHOUT CANCER RESEARCH UK

I joined the Cancer Research UK-funded STAMPEDE trial two months later, after my consultant told me about it. He explained surgery wasn’t an option for me because the cancer had spread beyond my prostate, but that the trial might be a good option. I met the criteria for it so thought I’d take part – I had nothing to lose.

The first patients join STAMPEDE, a trial looking at hormone therapy with other treatments for prostate cancer

2005

ALFRED SAMUELS

“THANK YOU TO EVERYONE WHO SUPPORTS CANCER RESEARCH UK”
As part of the trial, I started taking a drug called abiraterone four times a day and had a hormone-reducing injection every eight weeks. I had side effects, like hot flushes and mood swings, which were difficult to handle. But Grace’s support, hill walking and telling myself to not give up helped me get through it.

During the first six months of being on the trial, tests showed that the treatment was working. I’m still on the trial, which I find reassuring, and, fortunately, my cancer is being managed well.

If it wasn’t for abiraterone and Cancer Research UK, whose scientists helped develop the drug, I don’t think I’d be here today.

**The Future Looks Bright**

I look at life differently now because I know that tomorrow is not promised to anybody. I’m round my family much more. I’m a city boy, born and bred, but now I enjoy being in nature because I feel free.

I also mentor young people about business, do motivational speaking, and I’ve written two books about my cancer experience. I am keen for prostate cancer to move from taboo to table talk.

It’s been five years since my diagnosis and the future looks bright. I’ll keep talking and writing about cancer and campaigning, both to raise awareness about how it can be prevented and to make sure people have access to the treatments they need.

Right now, I’m also part of a group made up of people affected by cancer, who are advising Cancer Research UK on the best ways to tell the public about cutting-edge research – such as tailoring treatment to individual patients’ cancers. They spend money wisely, on amazing research, which is why I think they deserve people’s support. The new Francis Crick Institute is one example of how they do this. I hope researchers there will find new ways to better manage cancer and help more people survive the disease for longer.

A huge thank you to everyone who supports Cancer Research UK from me and my family.”
Here is a summary of how we spent our money during the financial year April 2016 to March 2017, and where that money came from.

WHERE THE MONEY CAME FROM
Our total income in 2016/17 was £647 million. This was raised through:

- **Legacies (£187 million)** – Over 6,000 people left a gift to Cancer Research UK in their will.
- **Donations (£190 million)** – Donations included regular gifts, major donations and money raised by local fundraising groups and corporate partners.
- **Events (£65 million)** – Over 600,000 people took part in our events, including Race for Life, Dryathlon and Stand Up To Cancer.
- **Trading (£102 million)** – This includes £80 million generated through goods sold in our shops and £22 million from registration fees and merchandise sales at events.
- **Royalties and grants (£92 million)** – Royalty income was generated from treatments we have developed. Grants were received by our research institutes.
- **Other (£11 million)** – This is primarily made up of income from investments and rental income from the lease of one of our laboratories.

OUR FUNDRAISING
Supporters are at the heart of everything Cancer Research UK achieves and giving to the Charity should be a positive experience for everyone. We’re always looking for ways to improve and make sure we adapt to new challenges and regulations effectively.

As of 1 July 2017, we will become an opt-in charity. This means that we’ll be asking all supporters to opt in and give us permission to contact them before we ask for more support. If they choose not to opt in, they won’t receive marketing or fundraising requests from us.

Read more about our fundraising practices at cruk.org/our-promise and cruk.org/our-finances.

WE RECEIVE NO FUNDING FROM THE UK GOVERNMENT FOR OUR RESEARCH
Government money for medical research is spent through the Medical Research Council and National Institute for Health Research. As an independent medical research charity, all our money for research comes from our supporters.

More than 9 out of 10 donations we receive are for less than £10, proving that small amounts make a big difference.
HOW THE MONEY WAS SPENT
In 2016/17 we spent a total of £666 million using money raised during this financial year (see page 54), plus extra money gained through property and investments returns. This was spent on:

Research (£432 million) – We spent around two-thirds of this on research into specific types of cancer (see page 56), and a third on research into cancer biology, which underpins our understanding of all types of cancer. This money was spent across research sites, awards and support costs.

Information and policy work (£41 million) – This includes prevention and early diagnosis work; campaigning; communicating health messages; and engaging patients, the public and health professionals.

Fundraising (£108 million) – Marketing to engage new supporters and innovation to develop new ways to raise money, to make sure we can continue our research in the future.

Trading costs (£85 million) – This includes £69 million on goods, rent, electricity and salaries of our shop managers. Our shops are a more expensive way of fundraising but they are important to keep in touch with our supporters throughout the UK. We spent a total of £16 million to deliver events which have a registration fee, like Race for Life.

OUR RESERVES
We set money aside in our reserves so we can fund longer-term research projects. These reserves also mean we could continue to run for a period of time in the face of financial uncertainty.

80p in every £1 is used to beat cancer. The remaining 20p goes towards raising funds for the future.
HOW WE DECIDE WHAT RESEARCH TO FUND

We ensure we only fund the best science that stands the best chance of making a difference for people with cancer. We spend money on the highest quality project proposals that we receive. We don’t have set amounts to spend on specific cancer types every year.

To make these important decisions, we enlist independent expert scientists and rigorously assess each project proposal together. We also work closely with people affected by cancer to make sure we fund research that will benefit them.

This year, we put £432 million towards research: £274 million on specific cancer types (see below), £112 million on research into the biology of cancer and £46 million was set aside for long-term projects.

WHAT WE SPENT ON RESEARCH INTO DIFFERENT CANCERS IN 2016/17

- Lung £43m
- Bowel £35m
- Breast £33m
- Prostate £22m
- Leukaemia £18m
- Pancreatic £17m
- Ovarian £13m
- Brain £13m
- Oesophageal £12m
- Melanoma £12m
- Non-Hodgkin lymphoma £9m
- Sarcoma £5m
- Liver £4m
- Myeloma £4m
- Bladder £4m
- Kidney £4m
- Neuroblastoma £4m
- Cervical £3m
- Skin (excluding melanoma) £3m
- Pharyngeal £3m
- Other £13m

Includes stomach, testicular and over 100 other cancers

To find out more, visit cruk.org/what-we-fund
OUR YEAR IN NUMBERS

40,000
Around 40,000 volunteers gave millions of hours of their time

12,000
Our helpline nurses answered almost 12,000 queries about cancer, supporting people when they need help and advice

220
We currently support around 220 clinical trials across the UK

12,000
The number of face-to-face engagements we had with healthcare organisations this year

2.6 million
More than 2.6 million people read our science blog

£15.7 million
The third live televised Stand Up To Cancer show aired on Channel 4 in October 2016 and raised an incredible £15.7 million

3,500
The number of our ‘About Cancer’ webpages we have revamped this year

770
The number of people affected by cancer improving our work through our patient involvement network

116
The number of Cancer Research UK PhD students who have started work this year
A TIMELINE OF OUR 2016/17 HIGHLIGHTS

APRIL
For the first time, our scientists in Cambridge scan a patient using a revolutionary imaging technique that could help tailor treatments faster.

MAY
Standardised cigarette packaging rolls out across the UK, a huge success for our campaign to reduce the number of people taking up smoking and help smokers quit.

MAY
PEACE study launches. See page 42

JUNE
CONVERT trial results published. See page 35

JUNE
England and Wales join Scotland in committing to implement the new, easier-to-use Faecal Immunochemical Test (FIT) in their national bowel cancer screening programmes, which we demonstrated will save more lives.

JULY
We launch the second ‘Walk All Over Cancer’, which encourages people to get fit and raise money by walking 10,000 steps every day for a month.

AUGUST
SPIRE trial launches. See page 46

AUGUST
The Government announces plans to introduce a 'Soft Drinks Industry Levy' (known as the 'Sugar Tax'), a move we welcomed and supported.

SEPTEMBER
Study shows there are three types of oesophageal cancer. See page 35

SEPTEMBER
Our researchers develop a possible new way of detecting – and maybe preventing – some cases of oesophageal cancer using a specialised camera and a fluorescent dye.

OCTOBER
Our campaigning leads to the announcement of a £180 million investment by NHS England and Scotland in new radiotherapy machines.
OCTOBER
We carry out an awareness campaign around the link between obesity and cancer. See page 18

NOVEMBER
Following campaigns highlighting the importance of government investment in science, we welcome the announcement of an additional £2 billion to be spent on research and development by 2020.

JANUARY
Our researchers find a potential new way to harness the power of the immune system to fight cancer.

FEBRUARY
Uniting against cancer, we raise £2 million on World Cancer Day by selling Unity Band® bracelets in our shops and online, and through collections across the UK.

MARCH
We invest £10 million in PRECISION-Panc, a study that aims to match pancreatic cancer patients to the best clinical trial for them. See page 35

JANUARY
We fund the CanTest Collaborative, which aims to bring cancer diagnosis tests to GP surgeries. See page 28

DECEMBER
The Food and Drug Administration in America approves the drug rucaparib, which our scientists helped develop, as a treatment for certain patients with advanced ovarian cancer. We hope a similar decision will be made in Europe soon.

NOVEMBER
Her Majesty the Queen officially opens the Francis Crick Institute. See page 12

NOVEMBER
We publish a report highlighting the need for more pathologists to meet the rising demand for cancer tests. See page 26

DECEMBER
We announce a £226 million investment in our research network.

OUR LIFE-SAVING WORK CONTINUES

February
We announce the four projects funded by our Grand Challenge awards. See page 10

December
We publish a report highlighting the need for more pathologists to meet the rising demand for cancer tests.
We’re so grateful to everyone who has supported us over the past year. You make our life-saving work possible. Every donation helps more people survive cancer. In particular, we’d like to thank the following supporters, as well as those who have chosen to remain anonymous. Together we will beat cancer sooner.

FOR YOU, BECAUSE OF YOU, THANKS TO YOU

OUR PATRON
Her Majesty the Queen

OUR JOINT PRESIDENTS
HRH The Duke of Gloucester KG, GCVO
HRH Princess Alexandra, The Hon Lady Ogilvy KG, GCVO

OUR TRUSTEES
Michael Pragnell, Chairman (retired 31 October)
Professor Sir Adrian Bird (retired 31 December)
Carolyn Bradley
Catherine Brown
Peter Chambé (from 13 July)
Dr Adrian Crellin
Professor Alexander Eggemont
Professor Stephen Holgate
Professor Jonathan Knowles (retired 13 July)
David Lindsell
Andrew Palmer, Treasurer
Professor Sir Bruce Ponder

THE BENEFACTORS CIRCLE
The Benefactors Circle recognises those who have supported the charity in an extraordinarily generous way.
Seve Ballesteros Foundation
Beiersdorf UK Ltd

Blackburn District and Ribble Valley Committee
Tony Bramall Charitable Trust
The Bupa Foundation
Stephen and Caroline Butt
The Catalyst Club
Cheltenham Racecourse
City of London Friends of Cancer Research UK
Compass Group UK & Ireland Ltd
Lawrence Dallaglio OBE
Dartford and District Local Committee
Deloitte LLP
Edwardian Hotels London
The Exilarch’s Foundation
Goldman Sachs International Ltd
The Mike Gooley Trailfinders Charity
Alison Howe
HSBC Bank plc
HSBC Holdings plc
ICAP
Ronan and Storm Keating
Eashwar Viswanathan Krishnan and Tzo Tze Ang
Kuok Group Foundation
Laing O’Rourke plc
The Lord Leonard and Lady Estelle Wolfson Foundation
Live Nation UK Ltd
Lloyds Banking Group plc
Mike and Angela Lynch
M&Co
Charles and Nicola Manby
Stephanie Moore MBE
Wm Morrison Supermarkets plc
The Dr Mortimer and Theresa Sackler Foundation
Mothers and Daughters
National Events Committee
Network Rail Infrastructure Ltd
Oak Foundation
PACCAR Foundation
The Pamperened Chef Ltd
Parthenon Trust
Peacocks Stores Ltd
The ROAN Charitable Trust
The Royal Bank of Scotland Group plc
ScottishPower Ltd
David Seaman MBE
Slimming World Ltd
Dame Phyllis Somers DBE
David Spencer
Standard Life plc
Taunton and District Local Committee
Tesco Stores Ltd
TJX Europe
Towergate Charitable Foundation
Ultra White Collar Boxing
Garfield Weston Foundation
Elaine Whelan
Pamela Williams Charitable Trust
Winton Philanthropies, The
David & Claudia Harding Foundation and Winton Capital Management Ltd
The Wolfson Foundation
Yelsel Trust

OUR CORPORATE PARTNERS
Aqua Pura
Banham
Banham Charitable Foundation
Bellway Homes Limited
BNY Mellon
British Airways
BT

Channel 4
Citi
Close Brothers Group plc
Coinstar Ltd
England Footballers Foundation
England Netball
Flybe Ltd
The Football Association
Freshfields Bruckhaus Deringer LLP
Gatwick Airport Limited
Grafton Merchanting GB LTD
Hamptons International Ltd
Horan & Rose
John Lewis
Kohler Mira Ltd
Lochs & Glens Holidays
Marketing in Partnership
Mitchells & Butlers
Mobility Plus Ltd
mydentist UK
Newton Investment Management
The Oxford & Cambridge Boat Races
Premier Foods
Regis UK Ltd
Rontec Investment LLP
Rowlands Pharmacy
The Royal Mint
Salmon
SJM Concerts
SPOT ON
Ticketmaster
TrustFord
TUI UK Retail Ltd
Warburtons Ltd
WHSmith
Wilko Retail Ltd
Wolseley UK Limited
The Works
Zizzi
OUR MAJOR SUPPORTERS
Nick 28T
Douglas Anderson
The Peter Andre Fund
Mr and Mrs A Asfari
AT&T Ltd
Barry Atkinson
Mark and Rebecca Baron
Gareth W. Bater
Francis Benali
Kleinwort Benson
Chui-Ling Blake
Mr Michael Blunt
Anthea Bond
Susie Bradshaw
Tania Bryer
Jenson Button
Lindsey Carman
Challenge Adventure Charities
Annie Chapman
Alex Chesterman
Clifford Chance Syndicate
The Sebastian Coe Charitable Foundation
Professor Andrew Coates
and Mrs Katherine Coates
Sherry Coutu CBE
Richard and Lucinda Cormack
Haydyn and Joanna Cunningham
där lighting group
Victoria Dashwood
Kim Davidson
Michael and Irene Davis
Derwent London Plc
Toby Dicker
Sharon Down
Nick and Lesley Dumbreck
David Dutton
Isabelle Ealet and John Corbani
Simon Eyers
Lord and Lady Fink
Catherine Firth
Mr C Fleming
Foreign Sisters
The C G French Family Fund
Tim Freshwater
James Frost
Michael Geoghegan CBE
Andrew Gibson
John and Caroline Giddings
Dhannaj Chathamal Gidwaney
Great Eagle Holdings
Sir Philip Green
Julie Guthrie
Gynaecological Cancer Fund
Ella Hadsley-Chaplin
Help Jack Make A Difference
HepcMotion
Jaqui Heywood
R. S. Hoffman
Simon and Tracey Holden
Bill Honeywell
Niall Horan
Susie Howard
James Ingham
Mr M R Jackson
HH Sheikhah Jahaner bint
Mohammed Al Qasimi
Neil Jones
The Marie Keating Foundation
Colm Kelleher
Ella Kelleher
Kingswood Golf Club
Paul and Nicolette Kirkby
Sam Laidlaw
Murray Lambell
Vanessa, Susanna and Mary Langsdale
John and Camilla Lindfors
Stavros G. Livanos
William W. Y. Lo
Mark Loveday
Liza Loveday
Mark Machin and Melissa Mowbray-d’Arbela
Jill and Michael May
Mark McDonnell
Lakshmi Mittal
Modest! Management
Fiona Marley
The McKernan family
Jim Mellon
In memory of Gerda Fell
Ann Moore
Paul Mullen
NGL Golf Ltd
Adrian O’Carroll
Sarah Oliver
In memory of Lawson Painter
James Paradise
Francesco Pascuzzi
Dalip and Chandrika Pathak
Cosima Pavoncelli
Paul Peake
Andrew Pisker and Belinda Wilson Pisker
Mark Plunkett
Mr and Mrs Michael Raffan
Sarah and Alexander Rayden
Kate Reardon
Darren and Carolyne Redmayne
James Reynolds
Stephen and Margaret Riley
Paul Robertson
Justin Rose
David Ross
Lloyd Salvage
Mrs Sue Scott
Colin Shaw
Priscyila Shaw
Mark Sims
Russell Steer
Dr Andre Stern
Caroline Stewart
The Stobart Group
Peter and Karin Swann
James Taylor
Martin and Anne Thatcher
Mark Theresa
Dieter Turowski
Maria Valentino
Marcel and Irina van Poecke
Graeme Varley
Dr Justin Watts
Martin Welch
Polly Wood MBE
Thomas H. Wood MBE
Christine Woodward
Mark Yallop

OUR COMMITTEES
Angus Committee
Bridgewater Friends
Bury and Radcliffe Local Committee
Business Beats Cancer Board
Cheddleton Carnival Local Committee
Cheltenham Local Committee
Coventry Local Committee
Crewe and Nantwich Local Committee
Derby Local Committee
East Herts Cancer Research Committee
Halesworth Local Committee
Inspired Living (Group of Friends)
Isle of Lewis Local Committee
Loose Change Buskers
Marlborough Local Committee
The National Events Committee
Newry Local Committee
Relay For Life Arbroath
Relay For Life Ascot
Relay For Life Aylesbury
Relay For Life Buckingham
Relay For Life Clacton
Relay For Life Dalgaty Bay
Relay For Life Derby
Relay For Life Evesham
Relay For Life Forest of Dean
Relay For Life Gisburn
Relay For Life Gwynedd and Anglesey
Relay For Life Isle of Man
Relay For Life Jarrow
Relay For Life Jersey
Relay For Life North Devon
Relay For Life Peterhead
Relay For Life Pontypool
Relay For Life Portsmouth
Relay For Life Shetland
Relay For Life Stockport
Relay For Life Yate
Romsey and Wellow Group of Friends
Salisbury Local Committee
Stoke-on-Trent Local Committee
Teesdale Local Committee
Thornbury and District Local Committee
Women of Influence
Young Art Committee

TRUSTS AND FOUNDATIONS
The Ada Hillard Charitable Trust
Michael Amjad Awareness Fund
The Bascule Charitable Trust
The Bergman Lehane Trust
Blevins Franks Trustees Limited as Trustee of the EH and PH Trusts
Robert Drake Brockman
CAF America
The Capstick-Dale Foundation
Catherine Cookson Charitable Trust
The Cecil Rosen Foundation
The Constance Travis Charitable Trust
Denise Leffman Trust
Detas Foundation
The Eranda Foundation
Eveson Charitable Trust
The Foster Wood Foundation
The Harrison-Frank Family Foundation
Michael Hefferon
Hemraj Goyal Foundation
Hirschel Foundation
The Hoover Foundation
The Howat Foundation
The J Isaacs Charitable Trust
The James and Patricia Hamilton Charitable Trust
Josh Carrick Foundation
The Kathleen Laurence Charitable Trust
Ladbrokes Charitable Trust
The Lancastershire Foundation
The McGrath Trust
Miss E M Lidbury Charitable Trust
The Morton Charitable Trust
The Myristica Trust
The Pharsalia Charitable Trust
FOR YOU, BECAUSE OF YOU, THANKS TO YOU CONTINUED

Rangoonwala Foundation  
The Ranworth Trust  
The Richard Tait Charity  
The Robin Charitable Trust  
Rosetrees Trust  
The Samuel Scott of Yews Trust  
The Schroder Foundation  
ShareGift  
The Steel Charitable Trust  
Stelios Philanthropic Foundation  
The Tanlaw Foundation  
Thomas Roberts Trust  
The TRS Foundation  
The Uplands Charitable Trust  
The William Forrest Charitable Trust  
The Zochonis Charitable Trust

VISIONARIES
The Visionaries recognises a group of our most generous supporters who pledged to leave a significant gift in their will.

Joan Doris Anderson  
Susan Brenda Archer  
May Arnott  
Susan Judith Caroline Ashton  
Joan Mary Ashton  
Angela Mary Atkins  
Frances Lilian Mary Averill  
Maureen Violet Nora Bacon  
Patricia Alice Balderston  
Joan Elsie Barnes  
Ronald Barron  
Phyllis Mary Beavis  
Jane Patricia Beech  
Frederick Henry Bell  
Enid Grace Bellamy  
William Godfrey Bennett  
Alma Doreen Bird  
Simon Thomas Blease  
Donald James Albert Brettell  
Iola Broadbridge  
Helen Rosemary Brook  
Jonathan Hedley Brooke  
Adrian Bernard Hugh Brooker  
Eunice Rosamond Brownhill  
Jean Bryden  
Kathleen Busby  
George Adrian Hayhurst  
Cadbury  
Graham Hepburn Cameron  
Ruby Campbell  
Muriel Bertha Capek  
Peter Vincent Cattell  
Sheila Blanche Cherrett  
Azeline Edith Yolanda Clarke  
Ronald William Cole  
John Corner  
Betty Sheila Cowing  
Malcolm Stuart Cox  
Winifred Gladys Betty Coxhead  
Andrew Cree  
John Herbert Crocker  
Eileen Mary Cruise  
Manas Mohan Dasgupta  
Alun Everson Davies  
Dudley Laurence Davies  
Kenneth Charles Davies  
Anthony Bruce Dearden  
Charles Robert Dixon  
Isobel Parker Dodd  
Dulcie Doidge  
Mary Smith Donnelly  
Peter Dorney Hart  
Eliza Caldwell Dow  
Ronald Herbert Druet  
Frank William Dyer  
Elies Florence Laura Evans  
Helen Evison  
Joyce Amelia Farrar  
Joan Margaret Fearnley  
Keith Fletcher  
Ronald Charles Floyd  
Janet Alice Forwood  
Alma Elizabeth Foster  
Victor Bichan Foubister  
Norah Mary Fowler  
Roy Foxall  
Leonie Betty Fuller  
Douglas Gaff  
Ronald Arthur Gaff  
Peggy Kathleen Galloway  
Janet Susan Garne  
Margaret Gatehouse  
Monica Eileen Gledall  
Leslie Gleghorn  
Mildred Lilian Kathleen Goodbourn  
Peggy Edna May Gordon  
Nora Mary Gotts  
Joan Gowers  
Myra Frances Grace  
Patricia Mary Green  
Denis Guthrie  
Desmond John William Hall  
Helen Vera Hall  
Marjorie Harding  
Jean Hargreaves  
Herbert Charles Harrow  
Peter John Haughton  
June Audrey Herbert  
Stanley Frederick Higinson  
Mina Iris Hislop  
Herman Robert Hodge  
Vera Holmes  
Constance Vera Holt  
Gertrude May Hopkins  
Jill Mary Hoskins  
Brenda Jacklin  
Mary McQuaker Johnston  
John Stanley Kelland  
Emelie Amelia Keiter  
Helen Fiona Kennedy  
Stanley Harry Edward Kersett  
Anne Kibbels  
Dorrien May Kingsley  
Ernest Alfred Kneller  
Pauline Ann Lanchester  
Margaret Sutherland Battersby Langton  
Keith Reginald Lawrence  
Madeleine Anne Lawrence  
Maurice Edward Lawsson  
Joyce Annie Leahy  
Gretie Limb  
Dorothy Lawson Linklater  
Janet Winifred Liston  
Eunice Enid Lloyd  
Alexander Narcissus Lobo  
Doreen Hilda Luke  
Rena Mary Luke  
Roy Anthony Lynch  
Eileen Mair MacColl  
Muriel Adeline MacKenzie  
Lawrence John Marshall  
Ella Mary Marshman  
Ann Rosemary Martin dall  
Norman John Robert McAllan  
Margaret McCabe  
Violet Iris McClelland  
Iris McDonald  
Gweneth Ruth McKechnie  
Dorothy May Mclean  
Joyce Miles  
Elsie Vivienne Miller  
Mona Lydia Miller  
Oliver Charles Minett  
Arthur Mitchell Moodie  
Cecilia Mary Helen Moore  
Stanley Shem Moxon  
Florence J S Murray  
Brenda Frances Nesbitt  
John Newstead  
Peter John Newton  
Margaret Nicholson  
Caroline Edith Noon  
Margaretta Orchard  
Ivor Orringe  
Peggy Maidina Paterson  
Kathleen Emma Payne  
Robin Henry Payne  
Kenneth James Peachey  
John Edward Perrin  
John Cecil Priestman  
Beatrice Irene Mary Purvis  
Mary Smith Ray  
Clifford Dennis Reason  
Gertrude Barbara Reed  
Arthur Russell Reid  
Olive Rhodes  
Marion Richardson  
Jean Richmond  
Edith Mary Roberts  
Dorothy Evelyn Robinson  
Jasmin Ruth Rogers  
Heino Roosimagi  
Gladys Neville Rose  
Audrey Patricia Salenieks  
Joan Savage  
Rita Dorothy Scarratt  
David John Scott  
Josephine Edith Sharpe  
Joan Marguerite Simarpi  
Christine Simm  
George William Simpson  
Brenda Margaret Smith  
Charles Grant Smith  
Nigel Charles Smith  
Ronald Edward Ernest Smith  
Valerie Anne Smith  
Tessa Audrey Hilda Solesby  
Marguerite Ivy Sparrow  
Joan Vickery Spooner  
Grace McQueen Squair
THANK YOU TO EVERYONE WHO MAKES OUR WORK POSSIBLE
HELP US BEAT CANCER SOONER

MAKE A DONATION
Regular donations make a real difference. Visit cruk.org or call 0300 123 1022

TAKE PART
Discover all the ways you can get involved with fundraising and volunteering at cruk.org/support-us

SHARE YOUR STORY
Help us raise awareness – email mystory@cancer.org.uk or visit cruk.org/share

JOIN OUR PATIENT INVOLVEMENT NETWORK
Share your experience of cancer to help make sure our work meets the needs of people affected by the disease. Visit cruk.org/patient-involvement

GET RELIABLE INFORMATION ABOUT CANCER
For information about cancer, clinical trials and research visit cruk.org/about-cancer

SPEAK TO A SPECIALIST CANCER NURSE
Our specialist nurses are on hand to answer your questions in confidence. Call free on 0808 800 4040, Mon–Fri, 9am–5pm.

FIND OUT ABOUT CANCER TRIALS
For more information on clinical trials that you can ask your doctor about, and to see trial results, go to cruk.org/trials

TALK TO OTHERS AFFECTED BY CANCER
Go to our online discussion forum cruk.org/cancer-chat

FOR MORE INFORMATION
The best way to get to know about us and our work is through our website cruk.org

HAVE A QUESTION OR FEEDBACK?
Call 0300 123 1022 or contact us through our website cruk.org/contact-us
We have committed to a series of social and environmental goals. You can find out more about these at cruks.org/corporate-responsibility

A great deal of cancer research is carried out without involving animals, but in certain areas, animal research remains essential if we are to understand, prevent and cure cancer. We only carry out research involving animals when there is no alternative. People with cancer and their families are at the heart of everything we do. We believe that all our research is vital if we are to save more lives in the future.

Registered charity number
England and Wales: 1089464
Scotland: SC041666
Isle of Man: 1103

Registered company number
England and Wales: 4325234
Isle of Man: 5713F

Copyright © 2017 Cancer Research UK

Designed and produced by
CONRAN DESIGN GROUP

Photography: Patrick Harrison
Image credits:
Page 2, 28 and 29: John Nicholson
Page 3: Dennis Underwood
Page 26, image of cells: Professor Tim Helliwell
Page 34: Mia von Scheven
Page 35, image of Corinne: The Christie
Copywriting: Sarah Myers and Trina Wallace
Print: Park Communications

This document is printed on UPM Fine Offset, a paper containing virgin fibre sourced from well-managed, responsible FSC® certified forests. 100% of the inks used are vegetable oil-based. Park is an EMAS certified company. Its Environmental Management System is certified to ISO 14001.